

**In the Matter of the Philadelphia Water
Department's Proposed Change in Water,
Wastewater and Stormwater Rates and Related
Charges**

Fiscal Years 2019-2021

Philadelphia Water Department

PWD Exhibit 6

**Black & Veatch Management Consulting, LLC
Calculations Supporting Schedules BV-E1, BV-E2
AND BV-E3**

Dated: February 12, 2018

**INDEX TO
BLACK & VEATCH MANAGEMENT CONSULTING, LLC
CALCULATIONS SUPPORTING FEBRUARY 2018
SCHEDULES BV-E1, BV-E2, AND BV-E3**

**IN THE MATTER OF THE PHILADELPHIA WATER DEPARTMENT'S PROPOSED
CHANGE IN WATER, WASTEWATER AND STORMWATER RATES AND RELATED
CHARGES**

FISCAL YEARS 2019-2021

The calculations supporting the February 2018 Schedules BV-E1, BV-E2 and BV-E3 are developed in three computer model workbook files: FINPLAN17.XLS, WCOS17_19.XLS, and SCOS17_19.XLS. Each workbook file consists of many worksheets, and each worksheet may contain many pages of calculations. This printout of the computer model includes identifying tabs showing the name of the workbook file (e.g., Finplan17.XLS) and the worksheet (e.g., Customer) that is printed.

The Finplan17.XLS workbook file develops projected revenue requirements and cash flows for each utility and the combined utilities. The WCOS17_19.XLS workbook file allocates the water utility test year cost of service to contract wholesale and retail water utility customers and develops proposed water rates for the test year. The SCOS17_19.XLS workbook file allocates the wastewater utility test year cost of service to contract wholesale and retail sanitary sewer and stormwater customers and develops proposed sewer and stormwater rates for the test year.

The Index tab for each workbook file includes the following:

- Schedule Tables Reference Index – These pages provide calculation page references for the tables in Schedules BV-E1, BV-E2, and BV-E3.
- Section Index Pages – These pages provide brief descriptions of the purpose of each worksheet within the corresponding workbook file. In addition to this description, these pages include an index showing the description and page number of each page within the worksheet. Page numbers refer to the identifying page number for each page of the worksheet that is shown in the upper right-hand corner of a printed page, such as Customer-1 or LagRate-30. On many of the printed pages, references to other calculation pages are made using these page numbers. At the top of each printed page is a three line page header that includes the name of the workbook file, a description of the content of the page, the page number and other miscellaneous information.

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Account Escalation Factors							Assumptions - 1	
Description	2017	2018	2019	2020	2021	2022	2023	
Index	3	4	5	6	7	8	9	
Account - Small Decrease	-2.4%	-2.4%	-2.5%	-2.5%	-2.6%	-2.7%	0.0%	
Account - Small Growth	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	
Account - Med Growth	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Account - Large Growth	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Account - No Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Volume Escalation Factors							Assumptions - 2	
Description	2017	2018	2019	2020	2021	2022	2023	
Volume - Small Decrease (SC)	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	
Volume - Small Decrease	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	
Volume - Small Decrease with Adjustment	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	-1.75%	
Volume - Small Growth	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Volume - Med Growth	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Volume - No Growth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Volume - No Growth with Adjustment	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
AMI Theft Volume Adjustment	FALSE	0.0%	0.0%	0.0%	0.0%	0.000%	0.000%	0.000%
Projected Revenue	477,219	499,667	509,472	507,698	505,378	503,040	500,702	
Original Projection	477,219	499,667	509,472	507,698	505,378	503,040	500,702	
Impact	-	-	-	-	-	-	-	
(Note may include impact of collection factor adjustment)								

Other Revenue		Assumptions - 3						
	2017	2018	2019	2020	2021	2022	2023	
Water	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	
Sewer	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	
Interest Income	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	
Debt Service Reserve Interest Income	0.85%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	
Misc City Revenues	2,300	2,300	2,300	2,300	2,300	2,300	2,300	
Other	8,200	8,600	10,100	10,900	11,300	11,300	11,300	
State & Federal Grants	1,400	1,000	1,000	1,000	1,000	1,000	1,000	
Permits Issued by L&I (L&I)	2,990	2,520	2,520	2,520	2,520	2,520	2,520	
Miscellaneous (Procurement)	500	500	500	500	500	500	500	
City & UESF Grants	(4,000)	(650)	(650)	(650)	(650)	(650)	(650)	
Affordability Program Discount Adjustment	-	(3,900)	(9,800)	(13,700)	(17,000)	(17,000)	(17,000)	
Allocation	Water	Sewer						
Aviation	100.0%	0.0%						
Other	50.0%	50.0%						
State & Federal Grants	100.0%	0.0%						
Permits Issued by L&I (L&I)	50.0%	50.0%						
Miscellaneous (Procurement)	50.0%	50.0%						
City & UESF Grants	44.0%	56.0%						
Affordability Program Discount Adjustment	44.0%	56.0%						

Water - Customer Billed Volume Per Account (Mcf/Account)										
	USE 2017	Historical Averages				Historical Usage Per Account				
		1 Year	2 Year	3 Year	5 Year	2012	2013	2014	2015	2016
Assumptions - 4										
Senior Citizens										
5/8" Meter	5.60	5.51	5.62	5.63	5.63	5.55	5.72	5.63	5.74	5.51
> 5/8" Meter	6.60	6.20	6.63	7.62	10.28	14.05	14.50	9.60	7.05	6.20
General Service (Residential)										
5/8" Meter	7.00	6.80	6.95	6.99	7.09	7.15	7.36	7.07	7.09	6.80
> 5/8" Meter	69.00	63.87	68.87	74.56	88.23	111.77	105.70	85.93	73.88	63.87
General Service (Commercial)										
5/8" Meter	11.50	11.31	11.52	11.46	11.50	11.44	11.72	11.33	11.73	11.31
> 5/8" Meter	163.00	162.64	163.93	162.30	165.74	168.56	173.21	159.05	165.22	162.64
General Service (Industrial)										
5/8" Meter	11.20	11.19	11.46	11.22	11.00	10.63	10.73	10.72	11.74	11.19
> 5/8" Meter	160.00	166.71	160.14	161.40	166.87	181.41	168.77	163.92	153.57	166.71
General Service (Public Utilities)										
5/8" Meter	10.00	9.92	9.44	10.11	11.24	12.26	13.60	11.45	8.96	9.92
> 5/8" Meter	115.00	116.76	120.53	113.22	110.93	100.51	114.49	98.59	124.31	116.76
General Service (Excluding Senior Citizens)										
5/8" Meter	NA	7.09	7.25	7.28	7.38	7.42	7.63	7.35	7.40	7.09
> 5/8" Meter	NA	122.49	126.30	128.51	137.29	150.66	150.29	132.93	130.10	122.49
General Service (Including Senior Citizens)										
5/8" Meter	NA	7.02	7.17	7.20	7.30	7.34	7.55	7.27	7.32	7.02
> 5/8" Meter	NA	122.44	126.25	128.46	137.24	150.61	150.23	132.87	130.06	122.44
PHA	29.00	28.48	29.36	28.83	28.58	28.69	27.72	27.75	30.25	28.48
Charities & Schools	75.00	71.32	72.50	74.85	76.66	78.69	80.07	79.55	73.67	71.32
Hospital/University	590.00	610.24	576.80	589.35	618.18	682.40	640.44	614.46	543.35	610.24
Hand Bill	2,100.00	2,171.28	2,148.51	2,121.67	2,100.28	1,990.33	2,146.03	2,068.00	2,125.74	2,171.28
Scheduled	8.00	5.33	7.84	8.89	8.05	5.75	7.80	11.00	10.35	5.33
xxxxxxxxxx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
xxxxxxxxxx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fire Service	3.00	3.95	3.38	3.14	3.78	4.65	4.84	2.64	2.82	3.95
Public Fire (Hydrants)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water - Billings per Usage (Prior to Adjustment Factor) **Assumptions - 5**

NOT IN USE 2017 2018 2019 2020 2021 2022 2023

Water - Calculated Billings Adjustment Factor	Assumptions - 6						
	2017	2018	2019	2020	2021	2022	2023
Senior Citizens	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Residential)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Commercial)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Industrial)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Public Utilities)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Excluding Senior Citizens)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
PHA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Charities & Schools	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Hospital/University	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Hand Bill	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Scheduled	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxxxxxx	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxxxxxx	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Fire Service	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Private Fire (Unmetered)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Public Fire (Hydrants)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Sewer - Billings per Usage (Prior to Adjustment Factor) Assumptions - 7

	2017	2018	2019	2020	2021	2022	2023
NOT IN USE							

Sewer - Calculated Billings Adjustment Factor							Assumptions - 8
	2017	2018	2019	2020	2021	2022	2023
Senior Citizens	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Residential)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Commercial)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Industrial)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Public Utilities)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
General Service (Excluding Senior Citizens)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
PHA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Charities & Schools	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Hospital/University	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Hand Bill	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Scheduled	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxxxxxx	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxxxxxx	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Fire Service	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Sewer	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Groundwater (Non-City)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxxxxxx							
Stormwater	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Misc Municipal Revenue	2017	2018	2019	2020	2021	2022	Assumptions - 9 2023
Not in Use							
See Other Revenue							

Collection Adjustment Factors		Assumptions - 10						
		2017	2018	2019	2020	2021	2022	2023
Non SW Only								
Current Year		85.90%	85.90%	85.90%	85.90%	85.90%	85.90%	85.90%
Second Year Prior		1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
SW Only								
Current Year		60.38%	60.38%	60.38%	60.38%	60.38%	60.38%	60.38%
Second Year Prior		4.01%	4.01%	4.01%	4.01%	4.01%	4.01%	4.01%
AMI Revenue Adjustment (NOT IN USE)								
Current Year	FALSE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
First Year Prior		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Second Year Prior		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Revenue Impact								
Revenue Projection		638,156	665,228	666,528	663,683	660,134	657,707	655,431
Prior to Adjustment		638,156	665,228	666,528	663,683	660,134	657,707	655,431
Impact		0	0	0	0	0	0	0
Effective Months								
Effective Months		6	10	10	10	10	10	10
Water Revenue Increase		0.00%	0.00%	0.30%	2.60%	2.60%	8.60%	8.60%
Combined Water & Wastewater Revenue Increase		0.00%	0.00%	1.60%	4.50%	4.50%	6.80%	6.80%
Offset Rate Compression		FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE

Collection Adjustment Factors		Assumptions - 10						
		2017	2018	2019	2020	2021	2022	2023
Water Revenue Increase Compression Factor								
Monthly Collection Factor Data								
July	94.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aug	93.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sep	93.10%	0.00%	93.10%	93.10%	93.10%	93.10%	93.10%	93.10%
Oct	93.56%	0.00%	93.56%	93.56%	93.56%	93.56%	93.56%	93.56%
Nov	92.40%	0.00%	92.40%	92.40%	92.40%	92.40%	92.40%	92.40%
Dec	92.92%	0.00%	92.92%	92.92%	92.92%	92.92%	92.92%	92.92%
Jan	91.67%	91.67%	91.67%	91.67%	91.67%	91.67%	91.67%	91.67%
Feb	90.99%	90.99%	90.99%	90.99%	90.99%	90.99%	90.99%	90.99%
Mar	89.45%	89.45%	89.45%	89.45%	89.45%	89.45%	89.45%	89.45%
Apr	87.03%	87.03%	87.03%	87.03%	87.03%	87.03%	87.03%	87.03%
May	79.55%	79.55%	79.55%	79.55%	79.55%	79.55%	79.55%	79.55%
Jun	32.12%	32.12%	32.12%	32.12%	32.12%	32.12%	32.12%	32.12%
Effective Annual Collection Factor	85.90%							
Water Effective Increase								
July		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aug		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sep		0.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Oct		0.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Nov		0.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Dec		0.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Jan		100.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Feb		100.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Mar		100.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Apr		100.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
May		100.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Jun		100.00%	100.00%	100.30%	102.60%	102.60%	108.60%	108.60%
Water Additional Revenue Collection Factor	78.47%	84.28%	84.28%	84.28%	84.28%	84.28%	84.28%	84.28%
Water Additional Revenue Compression Factor	100.00%	100.00%	98.11%	98.11%	98.11%	98.11%	98.11%	98.11%

Collection Adjustment Factors		Assumptions - 10						
		2017	2018	2019	2020	2021	2022	2023
Combined Water & Wastewater Revenue Increase Compression Factor								
Monthly Collection Factor Data								
July	93.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aug	92.98%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sep	92.33%	0.00%	92.33%	92.33%	92.33%	92.33%	92.33%	92.33%
Oct	92.70%	0.00%	92.70%	92.70%	92.70%	92.70%	92.70%	92.70%
Nov	91.57%	0.00%	91.57%	91.57%	91.57%	91.57%	91.57%	91.57%
Dec	92.09%	0.00%	92.09%	92.09%	92.09%	92.09%	92.09%	92.09%
Jan	90.78%	90.78%	90.78%	90.78%	90.78%	90.78%	90.78%	90.78%
Feb	90.15%	90.15%	90.15%	90.15%	90.15%	90.15%	90.15%	90.15%
Mar	88.69%	88.69%	88.69%	88.69%	88.69%	88.69%	88.69%	88.69%
Apr	86.22%	86.22%	86.22%	86.22%	86.22%	86.22%	86.22%	86.22%
May	78.82%	78.82%	78.82%	78.82%	78.82%	78.82%	78.82%	78.82%
Jun	31.99%	31.99%	31.99%	31.99%	31.99%	31.99%	31.99%	31.99%
Effective Annual Collecction Factor	85.14%							
Combined Water & Wastewater Effective Increase								
July		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aug		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sep		0.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Oct		0.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Nov		0.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Dec		0.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Jan		100.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Feb		100.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Mar		100.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Apr		100.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
May		100.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Jun		100.00%	100.00%	101.60%	104.50%	104.50%	106.80%	106.80%
Water & Wastewater Additional Revenue Collection Fact	77.78%	83.53%	83.53%	83.53%	83.53%	83.53%	83.53%	83.53%
Water & Wastewater Additional Revenue Compression F	100.00%	100.00%	98.11%	98.11%	98.11%	98.11%	98.11%	98.11%

Sewer Only - Billed Volume (Mcf) **Assumptions - 11**

Historical Data Review	Historical Averages						
	1 Year	2 Year	3 Year	5 Year			
xxxxxxxxxx	0	0	0	0			
Fire	6,393	4,529	4,016	6,543			
Sewer Only	83,596	76,949	76,850	64,013			
Groundwater (Non-City)	211,684	244,135	215,381	193,430			
xxxxxxxxxx	0	0	0	0			
Projection Assumptions	2017	2018	2019	2020	2021	2022	2023
xxxxxxxxxx	0	0	0	0	0	0	0
Fire	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Sewer Only	77,000	77,000	77,000	77,000	77,000	77,000	77,000
Groundwater (Non-City)	210,000	210,000	210,000	210,000	210,000	210,000	210,000
xxxxxxxxxx	0	0	0	0	0	0	0

Sewer Only - Billed Volume (Mcf)						Assumptions - 11	
Historical Data Review	Historical Billed Volume					Historical Usage Per Account	
	2012	2013	2014	2015	2016	Min	Max
xxxxxxxxxx	0	0	0	0	0	0	0
Fire	10,801	9,863	2,991	2,665	6,393	2,665	9,863
Sewer Only	32,453	57,061	76,652	70,303	83,596	57,061	83,596
Groundwater (Non-City)	159,607	161,399	157,872	276,587	211,684	157,872	276,587
xxxxxxxxxx	0	0	0	0	0	0	0

Water Wholesale	Assumptions - 12						
	2017	2018	2019	2020	2021	2022	2023
Bucks County							
Commodity Charge (\$/Mcf)	-	-	-	-	-	-	-
Demand Charge (\$/mgd of maximum demand)	-	-	-	-	-	-	-
Lump Sum Payment (\$/year)	-	-	-	-	-	-	-
Usage (Mcf)	-	-	-	-	-	-	-
Max Demand (mgd)	-	-	-	-	-	-	-
Management Fee	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aqua PA							
Commodity Charge (\$/Mcf)	3.404	3.508	3.508	3.508	3.508	3.508	3.508
Lump Sum Payment (\$/year)	2,695,000	2,707,000	2,707,000	2,707,000	2,707,000	2,707,000	2,707,000
Usage (Mcf)	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Management Fee	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Surcharge	Assumptions - 13						
	2017	2018	2019	2020	2021	2022	2023
Account Growth	-	-	-	-	-	-	-
lbs per Account							
BOD	64,000	64,000	64,000	64,000	64,000	64,000	64,000
SS	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Rate (\$/lb)							
BOD	0.350	0.372	0.372	0.372	0.372	0.372	0.372
SS	0.369	0.393	0.393	0.393	0.393	0.393	0.393
Actual							

Sewer Wholesale	Assumptions - 14						
	2017	2018	2019	2020	2021	2022	2023
Abington							
Rates							
Volume (\$/Mcf)	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)	595,000	595,000	595,000	595,000	595,000	595,000	595,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Capacity (cfs)	9.247	9.247	9.247	9.247	9.247	9.247	9.247
SS (1,000 lbs.)	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BOD (1,000 lbs.)	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Bensalem							
Rates							
Volume (\$/Mcf)	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)	91,000	91,000	91,000	91,000	91,000	91,000	91,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	170,000	170,000	170,000	170,000	170,000	170,000	170,000
Capacity (cfs)	11.740	11.740	11.740	11.740	11.740	11.740	11.740
SS (1,000 lbs.)	2,250	2,250	2,250	2,250	2,250	2,250	2,250
BOD (1,000 lbs.)	2,700	2,700	2,700	2,700	2,700	2,700	2,700

Sewer Wholesale	Assumptions - 14						
	2017	2018	2019	2020	2021	2022	2023
Bucks County							
Rates							
Volume (\$/Mcf)	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)	564,000	564,000	814,000	814,000	814,000	814,000	814,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Capacity (cfs)	85.080	85.080	85.080	85.080	85.080	85.080	85.080
SS (1,000 lbs.)	10,500	10,500	10,500	10,500	10,500	10,500	10,500
BOD (1,000 lbs.)	9,900	9,900	9,900	9,900	9,900	9,900	9,900
Cheltenham							
Rates							
Volume (\$/Mcf)	1.4491	1.5290	1.5290	1.5290	1.5290	1.5290	1.5290
Capacity (\$/cfs)	6,489	6,696	6,696	6,696	6,696	6,696	6,696
SS (\$/1,000 lbs.)	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	325,000	325,000	325,000	325,000	325,000	325,000	325,000
Capacity (cfs)	20.750	20.750	20.750	20.750	20.750	20.750	20.750
SS (1,000 lbs.)	2,800	2,800	2,800	2,800	2,800	2,800	2,800
BOD (1,000 lbs.)	2,400	2,400	2,400	2,400	2,400	2,400	2,400

Sewer Wholesale	Assumptions - 14						
	2017	2018	2019	2020	2021	2022	2023
Lower Moreland							
Rates							
Volume (\$/Mcf)	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)	307,000	307,000	307,000	307,000	307,000	307,000	307,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Capacity (cfs)	5,941	5,941	5,941	5,941	5,941	5,941	5,941
SS (1,000 lbs.)	600	600	600	600	600	600	600
BOD (1,000 lbs.)	450	450	450	450	450	450	450
Lower Southampton							
Rates							
Volume (\$/Mcf)	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)	1,666,000	1,780,000	1,780,000	1,780,000	1,780,000	1,780,000	1,780,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	260,000	260,000	260,000	260,000	260,000	260,000	260,000
Capacity (cfs)	15,790	15,790	15,790	15,790	15,790	15,790	15,790
SS (1,000 lbs.)	2,500	2,500	2,500	2,500	2,500	2,500	2,500
BOD (1,000 lbs.)	2,100	2,100	2,100	2,100	2,100	2,100	2,100

Sewer Wholesale	Assumptions - 14						
	2017	2018	2019	2020	2021	2022	2023
DELCORA							
Rates							
Volume (\$/Mcf)	1.3676	1.3979	1.3979	1.3979	1.3979	1.3979	1.3979
Capacity (\$/cfs)	6,090	6,258	6,258	6,258	6,258	6,258	6,258
SS (\$/1,000 lbs.)	211.9856	219.0013	219.0013	219.0013	219.0013	219.0013	219.0013
BOD (\$/1,000 lbs.)	172.2535	177.8872	177.8872	177.8872	177.8872	177.8872	177.8872
Annual Lump Sum (\$)	892,000	892,000	892,000	892,000	892,000	892,000	892,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Capacity (cfs)	155.000	155.000	155.000	155.000	155.000	155.000	155.000
SS (1,000 lbs.)	13,000	13,000	13,000	13,000	13,000	13,000	13,000
BOD (1,000 lbs.)	11,300	11,300	11,300	11,300	11,300	11,300	11,300
Lower Merion							
Rates							
Volume (\$/Mcf)	1.4142	1.4455	1.4455	1.4455	1.4455	1.4455	1.4455
Capacity (\$/cfs)	6,229	6,401	6,401	6,401	6,401	6,401	6,401
SS (\$/1,000 lbs.)	216.4549	223.6185	223.6185	223.6185	223.6185	223.6185	223.6185
BOD (\$/1,000 lbs.)	173.2514	178.9177	178.9177	178.9177	178.9177	178.9177	178.9177
Annual Lump Sum (\$)	123,000	123,000	123,000	123,000	123,000	123,000	123,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	350,000	350,000	350,000	350,000	350,000	350,000	350,000
Capacity (cfs)	31.570	31.570	31.570	31.570	31.570	31.570	31.570
SS (1,000 lbs.)	3,500	3,500	3,500	3,500	3,500	3,500	3,500
BOD (1,000 lbs.)	3,100	3,100	3,100	3,100	3,100	3,100	3,100

Sewer Wholesale	Assumptions - 14						
	2017	2018	2019	2020	2021	2022	2023
Springfield (less Wyndmoor)							
Rates							
Volume (\$/Mcf)	1.6307	1.6672	1.6672	1.6672	1.6672	1.6672	1.6672
Capacity (\$/cfs)	11,593	11,901	11,901	11,901	11,901	11,901	11,901
SS (\$/1,000 lbs.)	216.4549	223.6185	223.6185	223.6185	223.6185	223.6185	223.6185
BOD (\$/1,000 lbs.)	173.2514	178.9177	178.9177	178.9177	178.9177	178.9177	178.9177
Annual Lump Sum (\$)	703,000	703,000	703,000	703,000	703,000	703,000	703,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Capacity (cfs)	4.600	4.600	4.600	4.600	4.600	4.600	4.600
SS (1,000 lbs.)	1,800	1,800	1,800	1,800	1,800	1,800	1,800
BOD (1,000 lbs.)	1,700	1,700	1,700	1,700	1,700	1,700	1,700
Upper Darby							
Rates							
Volume (\$/Mcf)	1.4142	1.4455	1.4455	1.4455	1.4455	1.4455	1.4455
Capacity (\$/cfs)	6,229	6,401	6,401	6,401	6,401	6,401	6,401
SS (\$/1,000 lbs.)	216.4549	223.6185	223.6185	223.6185	223.6185	223.6185	223.6185
BOD (\$/1,000 lbs.)	173.2514	178.9177	178.9177	178.9177	178.9177	178.9177	178.9177
Annual Lump Sum (\$)	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	460,000	460,000	460,000	460,000	460,000	460,000	460,000
Capacity (cfs)	35.000	35.000	35.000	35.000	35.000	35.000	35.000
SS (1,000 lbs.)	4,600	4,600	4,600	4,600	4,600	4,600	4,600
BOD (1,000 lbs.)	4,000	4,000	4,000	4,000	4,000	4,000	4,000

Sewer Wholesale	Assumptions - 14						
	2017	2018	2019	2020	2021	2022	2023
Springfield (Wyndmoor)							
Rates							
Volume (\$/Mcf)	1.9311	1.9726	1.9726	1.9726	1.9726	1.9726	1.9726
Capacity (\$/cfs)	13,490	13,894	13,894	13,894	13,894	13,894	13,894
SS (\$/1,000 lbs.)	320.3320	331.3816	331.3816	331.3816	331.3816	331.3816	331.3816
BOD (\$/1,000 lbs.)	110.9647	114.8652	114.8652	114.8652	114.8652	114.8652	114.8652
Annual Lump Sum (\$)	147,000	147,000	147,000	147,000	147,000	147,000	147,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Capacity (cfs)	1.930	1.930	1.930	1.930	1.930	1.930	1.930
SS (1,000 lbs.)	160	160	160	160	160	160	160
BOD (1,000 lbs.)	125	125	125	125	125	125	125

O&M Escalation Factors	Assumptions - 15						
	2017	2018	2019	2020	2021	2022	2023
Constant			0.00%	0.00%	0.00%	0.00%	0.00%
Labor			2.50%	3.00%	3.00%	3.00%	3.00%
Other Benefits			5.67%	4.50%	4.44%	4.46%	4.77%
Pension			3.22%	3.33%	1.47%	1.57%	2.39%
Pension Obligations			0.00%	0.00%	0.00%	0.00%	0.00%
General			3.00%	3.00%	3.00%	3.00%	3.00%
Property Leases			1.66%	1.60%	1.56%	3.44%	2.06%
Other 200			3.40%	3.40%	3.40%	3.40%	3.40%
Other 300			0.50%	0.50%	0.50%	0.50%	0.50%
Other 400			1.30%	1.30%	1.30%	1.30%	1.30%
Energy			0.00%	0.00%	3.00%	3.00%	3.00%
Gas			4.00%	0.00%	3.00%	3.00%	3.00%
Chemicals			6.70%	3.80%	1.00%	1.00%	1.00%
Transfers			2.50%	2.50%	2.50%	2.50%	2.50%

Capitalized Interest Period Named Range

Assumptions - 16

NOT IN USE

Affordability Analysis Assumptions

Assumptions - 17

NOT IN USE

Customer Classes

Assumptions - 18

NOT IN USE

Discounts

Assumptions - 19

Type of Discount	0-Existing	Choose Discount 0	
	% of Discount	1-Alternative % of Discount	Use % of Discount
Senior Citizen	25%	0%	25%
PHA	5%	0%	5%
Charity/Hospital/Education	25%	0%	25%

Meter Sizes **Assumptions - 20**

- 5/8"
- 3/4"
- 1"
- 1 1/4"
- 1 1/2"
- 2"
- 3"
- 4"
- 6"
- 8"
- 10"
- 12"

[List of meter sizes provided for Drop Down Lists](#)

Capital Account Deposit		Assumptions - 21						
		2017	2018	2019	2020	2021	2022	2023
		Base Year	Test Year	Calculation	Calculation	Calculation	Calculation	Calculation
Water System Net Plant Investment	41.06%	915,733,670	946,868,615	979,062,147	1,012,350,260	1,046,770,169	1,082,360,355	1,119,160,607
Wastewater System Net Plant Investment	58.94%	1,314,499,330	1,359,192,307	1,405,404,846	1,453,188,611	1,502,597,023	1,553,685,322	1,606,510,623
Total System Net Plant Investment		2,230,233,000	2,306,060,922	2,384,466,993	2,465,538,871	2,549,367,193	2,636,045,677	2,725,671,230
Estimated Increase in System Net Value	3.40%							
Capital Account Deposit %		1.00%	1.00%	1.50%	1.50%	1.50%	1.50%	1.50%

		Direct O&M Actual to Budget Factors					Assumptions - 22A				
		Use	Historical Averages				Actual to Budget Factor				
			1 Year	2 Year	3 Year	5 Year	2016	2015	2014	2013	2012
PWD Direct O&M		2 year average									
Human Resources and Administration											
Salaries & Wages	100	95.46%	92.92%	95.46%	96.04%	93.20%	92.92%	98.04%	97.33%	89.45%	87.49%
Services	200	72.00%	65.23%	72.00%	74.00%	71.91%	65.23%	78.04%	79.36%	67.30%	67.42%
Materials and Supplies	300	58.80%	57.88%	58.80%	64.52%	65.21%	57.88%	59.66%	82.01%	72.05%	60.95%
Equipment	400	57.04%	29.70%	57.04%	65.31%	67.73%	29.70%	98.33%	171.52%	94.67%	77.82%
Indemnities	500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transfers	800	0.00%									
Subtotal Human Resources and Administration			78.21%	82.84%	85.01%	83.33%	78.21%	87.38%	90.40%	81.82%	78.67%
Finance											
Salaries & Wages	100	88.48%	89.16%	88.48%	87.36%	84.66%	89.16%	87.78%	84.77%	73.40%	86.63%
Services	200	46.33%	26.88%	46.33%	50.38%	60.12%	26.88%	65.70%	58.28%	40.51%	127.14%
SMIP/GARP	2xx	100.00%	131.00%	122.57%	117.54%	111.97%	131.00%	113.15%	96.54%	95.18%	99.50%
Materials and Supplies	300	7.48%	18.62%	7.48%	12.23%	39.54%	18.62%	5.28%	15.26%	47.53%	79.57%
Equipment	400	0.00%	0.00%	0.00%	85.54%	71.08%	0.00%	0.00%	92.95%	40.08%	87.97%
Indemnities	500	0.00%									
Transfers	800	58.46%	76.87%	58.46%	58.39%	68.36%	76.87%	44.60%	58.25%	85.62%	82.88%
Subtotal Finance			85.58%	78.55%	74.83%	77.02%	85.58%	72.04%	66.44%	66.90%	98.57%
Planning and Engineering											
Salaries & Wages	100	92.60%	87.79%	92.60%	89.08%	88.04%	87.79%	97.38%	82.27%	86.98%	85.86%
Services	200	53.99%	47.74%	53.99%	46.37%	43.77%	47.74%	60.29%	31.24%	32.20%	53.19%
Materials and Supplies	300	40.62%	29.09%	40.62%	46.53%	68.50%	29.09%	51.55%	59.36%	129.57%	91.26%
Equipment	400	15.67%	6.56%	15.67%	13.59%	19.81%	6.56%	24.77%	12.48%	27.20%	35.99%
Indemnities	500	0.00%									
Transfers	800	0.00%									
Subtotal Planning and Engineering			69.64%	75.55%	70.59%	71.16%	69.64%	81.42%	61.55%	68.64%	75.87%
Operations											
Salaries & Wages	100	98.10%	95.71%	98.10%	97.03%	94.05%	95.71%	100.61%	94.76%	90.17%	88.77%
Services	200	88.86%	91.69%	88.86%	87.73%	89.96%	91.69%	86.03%	85.51%	93.96%	93.69%
Power	220	75.62%	72.08%	75.62%	76.89%	81.11%	72.08%	79.44%	79.42%	83.02%	91.57%
Gas	221	84.65%	70.51%	84.65%	82.32%	85.04%	70.51%	104.77%	77.41%	86.45%	93.80%
Materials and Supplies	300	82.35%	82.34%	82.35%	83.15%	87.98%	82.34%	82.35%	84.83%	95.48%	95.84%
Chemicals	307	93.85%	93.35%	93.85%	97.37%	95.65%	93.35%	94.32%	104.31%	96.03%	89.94%
Equipment	400	80.16%	82.66%	80.16%	72.40%	69.86%	82.66%	77.30%	59.18%	65.12%	66.72%
Indemnities	500	0.00%									
Transfers	800	0.00%									
Subtotal Operations			89.23%	90.23%	89.99%	90.39%	89.23%	91.25%	89.52%	91.02%	91.05%

		Direct O&M Actual to Budget Factors					Assumptions - 22A				
		Use	Historical Averages				Actual to Budget Factor				
			1 Year	2 Year	3 Year	5 Year	2016	2015	2014	2013	2012
Planning & Environmental Services											
Salaries & Wages	100	98.00%	99.40%	98.00%	98.97%	98.99%	99.40%	96.55%	101.25%	99.99%	97.97%
Services	200	93.96%	88.56%	93.96%	92.88%	92.78%	88.56%	100.06%	90.22%	94.19%	90.85%
Materials and Supplies	300	75.82%	78.20%	75.82%	78.91%	74.82%	78.20%	73.34%	86.13%	63.69%	74.09%
Equipment	400	32.96%	33.47%	32.96%	44.35%	38.56%	33.47%	32.20%	62.82%	50.59%	7.13%
Indemnities	500	0.00%									
Transfers	800	0.00%									
Subtotal Planning & Environmental Services			90.52%	93.52%	93.38%	92.85%	90.52%	96.81%	93.05%	93.50%	90.15%
Public Affairs											
Salaries & Wages	100	89.47%	83.15%	89.47%	90.60%	91.71%	83.15%	95.96%	93.21%	91.69%	95.77%
Services	200	90.50%	89.21%	90.50%	91.34%	92.95%	89.21%	91.83%	93.27%	86.21%	116.81%
Materials and Supplies	300	58.24%	74.39%	58.24%	53.91%	58.49%	74.39%	41.94%	45.19%	68.57%	64.38%
Equipment	400	134.15%	179.54%	134.15%	91.87%	84.75%	179.54%	88.75%	7.32%	114.41%	21.50%
Indemnities	500	100.00%									
Transfers	800	0.00%									
Subtotal Public Affairs			87.46%	89.31%	89.96%	91.45%	87.46%	91.22%	91.44%	86.93%	106.77%
Water Department Operating and Maintenance Expenses Summary											
Salaries & Wages	100		95.34%	97.32%	96.67%	94.20%	95.34%	99.38%	95.29%	90.83%	89.69%
Services	200		84.81%	86.15%	85.61%	87.10%	84.81%	87.53%	84.45%	84.64%	95.57%
Power	220		72.08%	75.62%	76.89%	81.11%	72.08%	79.44%	79.42%	83.02%	91.57%
Gas	221		70.51%	84.65%	82.32%	85.04%	70.51%	104.77%	77.41%	86.45%	93.80%
SMIP/GARP	2xx		131.00%	122.57%	117.54%	111.97%	131.00%	113.15%	96.54%	95.18%	99.50%
Materials and Supplies	300		79.91%	78.93%	79.63%	84.09%	79.91%	77.94%	81.10%	90.44%	91.84%
Chemicals	307		93.35%	93.85%	97.37%	95.65%	93.35%	94.32%	104.31%	96.03%	89.94%
Equipment	400		58.62%	63.33%	63.82%	60.74%	58.62%	69.33%	64.60%	55.62%	57.04%
Indemnities	500		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transfers	800		76.87%	58.46%	58.39%	68.36%	76.87%	44.60%	58.25%	85.62%	82.88%
Total Water Department Operating and Maintenance Expenses Summar			88.27%	88.87%	88.42%	88.82%	88.27%	89.48%	87.47%	87.71%	91.37%
Human Resources & Admin and Finance NOT USED											
Salaries & Wages	100		92.07%	93.90%	94.12%	91.40%	92.07%	95.76%	94.60%	86.14%	87.34%
Services	200		42.88%	57.39%	60.00%	64.12%	42.88%	71.18%	65.77%	45.31%	106.00%
Materials and Supplies	300		55.13%	49.49%	48.85%	55.43%	55.13%	45.30%	47.69%	59.74%	70.10%
Equipment	400		28.03%	54.53%	72.37%	69.67%	28.03%	95.86%	102.98%	44.13%	86.02%
Indemnities	500		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transfers	800		76.87%	58.46%	58.39%	68.36%	76.87%	44.60%	58.25%	85.62%	82.88%
Subtotal Human Resources & Admin and Finance			68.08%	67.93%	68.79%	72.48%	68.08%	67.79%	70.57%	67.58%	91.03%

		Direct O&M Actual to Budget Factors					Assumptions - 22B				
		Actual					Budget				
		2016	2015	2014	2013	2012	2016	2015	2014	2013	2012
PWD Direct O&M											
Human Resources and Administration											
Salaries & Wages	100	\$ 8,190,963	\$ 8,502,816	\$ 7,650,763	\$ 6,911,366	\$ 6,591,224	\$ 8,815,500	\$ 8,673,039	\$ 7,860,450	\$ 7,726,550	\$ 7,533,950
Services	200	3,406,310	4,562,319	3,277,947	2,019,108	2,676,000	5,222,100	5,846,000	4,130,600	2,999,990	3,969,095
Materials and Supplies	300	660,930	725,233	632,835	575,822	474,539	1,141,850	1,215,550	771,700	799,164	778,565
Equipment	400	188,501	413,078	140,816	46,389	111,049	634,600	420,100	82,100	49,000	142,700
Indemnities	500	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000
Transfers	800	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration		\$ 12,446,704	\$ 14,203,446	\$ 11,702,361	\$ 9,552,685	\$ 9,852,812	\$ 15,914,050	\$ 16,254,689	\$ 12,944,850	\$ 11,674,704	\$ 12,524,310
Finance											
Salaries & Wages	100	\$ 2,273,794	\$ 2,170,853	\$ 1,849,144	\$ 1,472,571	\$ 1,388,706	\$ 2,550,200	\$ 2,472,925	\$ 2,181,400	\$ 2,006,100	\$ 1,602,950
Services	200	\$ 1,961,689	\$ 4,811,153	\$ 4,366,100	\$ 5,577,954	\$ 9,206,767	\$ 7,297,500	\$ 7,322,500	\$ 7,491,000	\$ 13,768,110	\$ 7,241,405
SMIP/GARP	2xx	\$ 15,000,000	\$ 11,598,134	\$ 5,020,143	\$ 4,925,776	\$ 5,025,000	\$ 11,450,000	\$ 10,250,000	\$ 5,200,000	\$ 5,175,000	\$ 5,050,000
Materials and Supplies	300	\$ 16,054	\$ 23,023	\$ 124,596	\$ 383,299	\$ 598,960	\$ 86,200	\$ 436,200	\$ 816,400	\$ 806,436	\$ 752,735
Equipment	400	\$ -	\$ -	\$ 521,252	\$ 244,778	\$ 527,642	\$ 37,800	\$ 10,800	\$ 560,800	\$ 610,800	\$ 599,800
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ 8,100,186	\$ 6,244,621	\$ 7,714,419	\$ 10,792,914	\$ 9,074,729	\$ 10,537,000	\$ 14,000,000	\$ 13,243,100	\$ 12,605,000	\$ 10,948,900
Subtotal Finance		\$ 27,351,723	\$ 24,847,784	\$ 19,595,654	\$ 23,397,293	\$ 25,821,804	\$ 31,958,700	\$ 34,492,425	\$ 29,492,700	\$ 34,971,446	\$ 26,195,790
Planning and Engineering											
Salaries & Wages	100	\$ 1,075,392	\$ 1,199,514	\$ 1,043,846	\$ 1,057,108	\$ 1,028,722	\$ 1,225,000	\$ 1,231,738	\$ 1,268,860	\$ 1,215,300	\$ 1,198,100
Services	200	\$ 237,504	\$ 297,188	\$ 155,719	\$ 235,838	\$ 259,551	\$ 497,500	\$ 492,900	\$ 498,500	\$ 732,500	\$ 488,000
Materials and Supplies	300	\$ 54,541	\$ 102,067	\$ 105,252	\$ 191,888	\$ 133,233	\$ 187,500	\$ 198,000	\$ 177,300	\$ 148,100	\$ 146,000
Equipment	400	\$ 3,873	\$ 14,614	\$ 27,449	\$ 30,333	\$ 28,435	\$ 59,000	\$ 59,000	\$ 220,000	\$ 111,500	\$ 79,000
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Planning and Engineering		\$ 1,371,310	\$ 1,613,383	\$ 1,332,266	\$ 1,515,167	\$ 1,449,941	\$ 1,969,000	\$ 1,981,638	\$ 2,164,660	\$ 2,207,400	\$ 1,911,100
Operations											
Salaries & Wages	100	\$ 71,318,230	\$ 71,789,745	\$ 65,710,338	\$ 63,390,240	\$ 62,092,417	\$ 74,515,100	\$ 71,357,193	\$ 69,343,900	\$ 70,297,400	\$ 69,949,000
Services	200	\$ 54,441,610	\$ 51,086,665	\$ 51,604,806	\$ 50,321,374	\$ 46,354,228	\$ 59,373,700	\$ 59,381,100	\$ 60,348,600	\$ 53,556,100	\$ 49,475,000
Power	220	\$ 20,071,556	\$ 20,427,534	\$ 21,440,579	\$ 24,375,674	\$ 24,841,360	\$ 27,845,000	\$ 25,714,000	\$ 26,994,900	\$ 29,362,900	\$ 27,128,000
Gas	221	\$ 4,013,404	\$ 4,190,988	\$ 3,561,029	\$ 3,458,000	\$ 3,545,811	\$ 5,692,000	\$ 4,000,000	\$ 4,600,000	\$ 4,000,000	\$ 3,780,000
Materials and Supplies	300	\$ 15,057,143	\$ 14,703,881	\$ 14,625,464	\$ 16,475,057	\$ 15,651,859	\$ 18,286,100	\$ 17,855,400	\$ 17,240,200	\$ 17,255,800	\$ 16,332,000
Chemicals	307	\$ 21,075,520	\$ 22,324,969	\$ 24,446,114	\$ 22,602,203	\$ 20,239,205	\$ 22,575,800	\$ 23,668,950	\$ 23,435,500	\$ 23,537,400	\$ 22,502,000
Equipment	400	\$ 1,486,260	\$ 1,219,613	\$ 1,172,215	\$ 994,870	\$ 1,356,406	\$ 1,798,000	\$ 1,577,800	\$ 1,980,700	\$ 1,527,800	\$ 2,033,000
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Operations		\$ 187,463,723	\$ 185,743,395	\$ 182,560,545	\$ 181,617,418	\$ 174,081,286	\$ 210,085,700	\$ 203,554,443	\$ 203,943,800	\$ 199,537,400	\$ 191,199,000

		Direct O&M Actual to Budget Factors					Assumptions - 22B				
		Actual					Budget				
		2016	2015	2014	2013	2012	2016	2015	2014	2013	2012
Planning & Environmental Services											
Salaries & Wages	100	\$ 12,946,501	\$ 12,135,854	\$ 11,080,774	\$ 10,315,992	\$ 9,163,710	\$ 13,024,700	\$ 12,569,537	\$ 10,944,400	\$ 10,316,700	\$ 9,353,800
Services	200	\$ 22,364,997	\$ 22,388,075	\$ 17,411,374	\$ 18,442,417	\$ 16,447,254	\$ 25,254,200	\$ 22,374,200	\$ 19,299,800	\$ 19,579,700	\$ 18,102,800
Materials and Supplies	300	\$ 1,101,182	\$ 989,788	\$ 1,015,983	\$ 867,520	\$ 962,010	\$ 1,408,100	\$ 1,349,600	\$ 1,179,600	\$ 1,362,100	\$ 1,298,500
Equipment	400	\$ 285,682	\$ 187,954	\$ 556,793	\$ 470,735	\$ 55,839	\$ 853,450	\$ 583,650	\$ 886,400	\$ 930,500	\$ 783,400
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Planning & Environmental Services		\$ 36,698,362	\$ 35,701,671	\$ 30,064,924	\$ 30,096,664	\$ 26,628,813	\$ 40,540,450	\$ 36,876,987	\$ 32,310,200	\$ 32,189,000	\$ 29,538,500
Public Affairs											
Salaries & Wages	100	\$ 2,354,115	\$ 2,644,067	\$ 2,260,265	\$ 2,110,697	\$ 2,110,095	\$ 2,831,100	\$ 2,755,277	\$ 2,424,900	\$ 2,301,900	\$ 2,203,200
Services	200	\$ 8,040,229	\$ 8,001,034	\$ 7,244,654	\$ 6,591,039	\$ 4,525,982	\$ 9,013,200	\$ 8,712,700	\$ 7,767,700	\$ 7,645,200	\$ 3,874,500
Materials and Supplies	300	\$ 279,935	\$ 156,358	\$ 168,011	\$ 219,959	\$ 206,542	\$ 376,300	\$ 372,800	\$ 371,800	\$ 320,800	\$ 320,800
Equipment	400	\$ 27,829	\$ 13,757	\$ 1,134	\$ 17,734	\$ 2,688	\$ 15,500	\$ 15,500	\$ 15,500	\$ 15,500	\$ 12,500
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Public Affairs		\$ 10,702,108	\$ 10,815,216	\$ 9,674,064	\$ 8,939,429	\$ 6,845,307	\$ 12,236,100	\$ 11,856,277	\$ 10,579,900	\$ 10,283,400	\$ 6,411,000
Water Department Operating and Maintenance Expens											
Salaries & Wages	100	\$ 98,158,995	\$ 98,442,849	\$ 89,595,130	\$ 85,257,975	\$ 82,374,874	\$ 102,961,600	\$ 99,059,709	\$ 94,023,910	\$ 93,863,950	\$ 91,841,000
Services	200	90,452,339	91,146,434	84,060,600	83,187,730	79,469,782	106,658,200	104,129,400	99,536,200	98,281,600	83,150,800
Power	220	20,071,556	20,427,534	21,440,579	24,375,674	24,841,360	27,845,000	25,714,000	26,994,900	29,362,900	27,128,000
Gas	221	4,013,404	4,190,988	3,561,029	3,458,000	3,545,811	5,692,000	4,000,000	4,600,000	4,000,000	3,780,000
SMIP/GARP	2xx	15,000,000	11,598,134	5,020,143	4,925,776	5,025,000	11,450,000	10,250,000	5,200,000	5,175,000	5,050,000
Materials and Supplies	300	17,169,785	16,700,350	16,672,141	18,713,545	18,027,143	21,486,050	21,427,550	20,557,000	20,692,400	19,628,600
Chemicals	307	21,075,520	22,324,969	24,446,114	22,602,203	20,239,205	22,575,800	23,668,950	23,435,500	23,537,400	22,502,000
Equipment	400	1,992,145	1,849,016	2,419,659	1,804,839	2,082,059	3,398,350	2,666,850	3,745,500	3,245,100	3,650,400
Indemnities	500	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000
Transfers	800	8,100,186	6,244,621	7,714,419	10,792,914	9,074,729	10,537,000	14,000,000	13,243,100	12,605,000	10,948,900
Total Water Department Operating and Maintenance E		\$ 276,033,930	\$ 272,924,895	\$ 254,929,814	\$ 255,118,655	\$ 244,679,963	\$ 312,704,000	\$ 305,016,459	\$ 291,436,110	\$ 290,863,350	\$ 267,779,700
Human Resources & Admin and Finance											
NOT USE!											
Salaries & Wages	100	\$ 10,464,757	\$ 10,673,669	\$ 9,499,907	\$ 8,383,937	\$ 7,979,930	\$ 11,365,700	\$ 11,145,964	\$ 10,041,850	\$ 9,732,650	\$ 9,136,900
Services	200	\$ 5,367,999	\$ 9,373,472	\$ 7,644,047	\$ 7,597,062	\$ 11,882,767	\$ 12,519,600	\$ 13,168,500	\$ 11,621,600	\$ 16,768,100	\$ 11,210,500
Materials and Supplies	300	\$ 676,984	\$ 748,256	\$ 757,431	\$ 959,121	\$ 1,073,499	\$ 1,228,050	\$ 1,651,750	\$ 1,588,100	\$ 1,605,600	\$ 1,531,300
Equipment	400	\$ 188,501	\$ 413,078	\$ 662,068	\$ 291,167	\$ 638,691	\$ 672,400	\$ 430,900	\$ 642,900	\$ 659,800	\$ 742,500
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Transfers	800	\$ 8,100,186	\$ 6,244,621	\$ 7,714,419	\$ 10,792,914	\$ 9,074,729	\$ 10,537,000	\$ 14,000,000	\$ 13,243,100	\$ 12,605,000	\$ 10,948,900
Subtotal Human Resources & Admin and Finance		\$ 24,798,427	\$ 27,453,096	\$ 26,277,872	\$ 28,024,202	\$ 30,649,616	\$ 36,422,750	\$ 40,497,114	\$ 37,237,550	\$ 41,471,150	\$ 33,670,100

Direct O&M - Water and Sewer Allocation						Assumptions - 23		
	2018	Actual/Budget	2018		Allocation			
	Budget Detail	Factor	Estimated Actual	Distribution	Water	Wastewater	Stormwater	
PWD Direct O&M								
Human Resources and Administration								
Class 100 - xxxxxxxxxx	0	95.46%	-	0.00%	31.00%	69.00%	0.00%	
Class 100 - All Other	9,851,135	95.46%	9,403,454	100.00%	31.00%	69.00%	0.00%	
Class 100 - Total	100	9,851,135	95.46%	9,403,454	100.00%	31.00%	69.00%	0.00%
Class 200 - xxxxxxxxxx	0	72.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 200 - All Other	6,176,100	72.00%	4,446,567	100.00%	31.00%	69.00%	0.00%	
Class 200 - Total	200	6,176,100	72.00%	4,446,567	100.00%	31.00%	69.00%	0.00%
Class 300 - xxxxxxxxxx	0	58.80%	-	0.00%	0.00%	0.00%	100.00%	
Class 300 - All Other	1,152,218	58.80%	677,510	100.00%	31.00%	69.00%	0.00%	
Class 300 - Total	300	1,152,218	58.80%	677,510	100.00%	31.00%	69.00%	0.00%
Class 400 - xxxxxxxxxx	0	57.04%	-	0.00%	0.00%	0.00%	100.00%	
Class 400 - All Other	656,190	57.04%	374,277	100.00%	31.00%	69.00%	0.00%	
Class 400 - Total	400	656,190	57.04%	374,277	100.00%	31.00%	69.00%	0.00%
Class 500 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 500 - All Other	100,000	0.00%	-	0.00%	31.00%	69.00%	0.00%	
Class 500 - Total	500	100,000	0.00%	-	100.00%	0.00%	0.00%	
Class 800 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 800 - All Other	0	0.00%	-	0.00%	31.00%	69.00%	0.00%	
Class 800 - Total	800	0	0.00%	-	100.00%	0.00%	0.00%	
Subtotal Human Resources and Administration	17,935,643	83.08%	14,901,808					

	Direct O&M - Water and Sewer Allocation				Assumptions - 23		
	2018	Actual/Budget	2018	Distribution	Allocation		
	Budget Detail	Factor	Estimated Actual		Water	Wastewater	Stormwater
Finance							
Class 100 - xxxxxxxxxxxx	0	88.48%	-	0.00%	0.00%	0.00%	100.00%
Class 100 - All Other	3,051,659	88.48%	2,700,221	100.00%	38.00%	62.00%	0.00%
Class 100 - Total	3,051,659	88.48%	2,700,221	100.00%	38.00%	62.00%	0.00%
Stormwater Program - Residential	0	46.33%	-	0.00%	0.00%	0.00%	100.00%
Stormwater Program - Non-Residential	0	46.33%	-	0.00%	0.00%	0.00%	100.00%
Class 200 - Wastewater Collection Mains	0	46.33%	-	0.00%	0.00%	100.00%	0.00%
Class 200 - Green Initiatives (LTCP)	0	46.33%	-	0.00%	0.00%	50.00%	50.00%
Class 200 - Customer (Grants)	0	46.33%	-	0.00%	44.00%	35.00%	21.00%
Class 200 - Customer (Basis2)	0	46.33%	-	0.00%	33.40%	33.30%	33.30%
Class 200 - All Other	7,886,650	46.33%	3,653,559	100.00%	38.00%	62.00%	0.00%
Class 200 - Total	7,886,650	46.33%	3,653,559	100.00%	38.00%	62.00%	0.00%
Class 2xx - Wastewater Collection Mains	15,000,000	100.00%	15,000,000	100.00%	0.00%	100.00%	0.00%
Class 2xx - All Other	0	100.00%	-	0.00%	0.00%	100.00%	0.00%
Class 2xx - Total	15,000,000	100.00%	15,000,000	100.00%	0.00%	100.00%	0.00%
Class 300 - xxxxxxxxxxxx	0	7.48%	-	0.00%	0.00%	0.00%	100.00%
Class 300 - All Other	96,305	7.48%	7,204	100.00%	38.00%	62.00%	0.00%
Class 300 - Total	96,305	7.48%	7,204	100.00%	38.00%	62.00%	0.00%
Class 400 - xxxxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%
Class 400 - All Other	16,800	0.00%	-	0.00%	38.00%	62.00%	0.00%
Class 400 - Total	16,800	0.00%	-	0.00%	100.00%	0.00%	0.00%
Class 500 - xxxxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%
Class 500 - All Other	0	0.00%	-	0.00%	38.00%	62.00%	0.00%
Class 500 - Total	0	0.00%	-	0.00%	100.00%	0.00%	0.00%
Class 800 - xxxxxxxxxxxx	0	58.46%	-	0.00%	0.00%	0.00%	100.00%
Class 800 - All Other	11,000,000	58.46%	6,430,814	100.00%	36.00%	64.00%	0.00%
Class 800 - Total	11,000,000	58.46%	6,430,814	100.00%	36.00%	64.00%	0.00%
Subtotal Finance	37,051,414	75.01%	27,791,798				

Direct O&M - Water and Sewer Allocation						Assumptions - 23		
		2018 Budget Detail	Actual/Budget Factor	2018 Estimated Actual	Distribution	Allocation		
						Water	Wastewater	Stormwater
Planning and Engineering								
Class 100 - Office of Watersheds		0	92.60%	-	0.00%	15.00%	85.00%	0.00%
Class 100 - BLS		0	92.60%	-	0.00%	40.00%	60.00%	0.00%
Class 100 - All Other (Plant Investment)		1,848,821	92.60%	1,711,983	100.00%	40.00%	60.00%	0.00%
Class 100 - Total	100	1,848,821	92.60%	1,711,983	100.00%	40.00%	60.00%	0.00%
Class 200 - Res Stormwater Program		0	53.99%	-	0.00%	0.00%	0.00%	100.00%
Class 200 - Non-Res Stormwater Program		0	53.99%	-	0.00%	0.00%	0.00%	100.00%
Class 200 - Wastewater Collection Mains		0	53.99%	-	0.00%	0.00%	100.00%	0.00%
Class 200 - GSI Implementation		0	53.99%	-	0.00%	0.00%	100.00%	0.00%
Class 200 - Office of Watersheds		0	53.99%	-	0.00%	40.00%	60.00%	0.00%
Class 200 - BLS		0	53.99%	-	0.00%	40.00%	60.00%	0.00%
Class 200 - All Other (Plant Investment)		1,027,500	53.99%	554,721	100.00%	40.00%	60.00%	0.00%
Class 200 - Total	200	1,027,500	53.99%	554,721	100.00%	40.00%	60.00%	0.00%
Class 300 - Office of Watersheds		0	40.62%	-	0.00%	0.00%	0.00%	100.00%
Class 300 - BLS		0	40.62%	-	0.00%	40.00%	60.00%	0.00%
Class 300 - All Other (Plant Investment)		193,420	40.62%	78,576	100.00%	40.00%	60.00%	0.00%
Class 300 - Total	300	193,420	40.62%	78,576	100.00%	40.00%	60.00%	0.00%
Class 400 - Office of Watersheds		0	15.67%	-	0.00%	0.00%	0.00%	100.00%
Class 400 - BLS		0	15.67%	-	0.00%	40.00%	60.00%	0.00%
Class 400 - All Other (Plant Investment)		61,350	15.67%	9,612	100.00%	40.00%	60.00%	0.00%
Class 400 - Total	400	61,350	15.67%	9,612	100.00%	40.00%	60.00%	0.00%

Direct O&M - Water and Sewer Allocation						Assumptions - 23		
	2018 Budget Detail	Actual/Budget Factor	2018 Estimated Actual	Distribution	Allocation			
					Water	Wastewater	Stormwater	
Class 500 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 500 - All Other	0	0.00%	-	0.00%	40.00%	60.00%	0.00%	
Class 500 - Total	500	0	-	0.00%	100.00%	0.00%	0.00%	
Class 800 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 800 - All Other	0	0.00%	-	0.00%	40.00%	60.00%	0.00%	
Class 800 - Total	800	0	-	0.00%	100.00%	0.00%	0.00%	
Subtotal Planning and Engineering	3,131,091	75.21%	2,354,892					
Operations								
Class 100	100	See Assumptions-24 and Direct O&M-9						
Class 200	200	See Assumptions-26 and Direct O&M-11						
Class 220	220	See Assumptions-25A and Direct O&M-10A						
Class 221	221	See Assumptions-25B and Direct O&M-10B						
Class 300	300	See Assumptions-28 and Direct O&M-13						
Class 307	307	See Assumptions-27 and Direct O&M-12						
Class 400	400	See Assumptions-29 and Direct O&M-14						
Class 500	500				50.00%	50.00%	0.00%	
Class 800	800				50.00%	50.00%	0.00%	
Planning & Environmental Services								
Class 100 - Office of Watersheds	2,853,976	98.00%	2,796,897	19.40%	15.00%	85.00%	0.00%	
Class 100 - BLS	6,910,344	98.00%	6,772,138	46.96%	40.00%	60.00%	0.00%	
Class 100 - P&R	1,890,213	98.00%	1,852,409	12.85%	40.00%	60.00%	0.00%	
Class 100 - GSI Implementation	3,060,163	98.00%	2,998,960	20.80%	0.00%	100.00%	0.00%	
Class 100 - Total	100	14,714,696	98.00%	14,420,404	100.00%	26.83%	73.17%	0.00%
Class 200 - Res Stormwater Program	0	93.96%	-	0.00%	0.00%	0.00%	100.00%	
Class 200 - Non-Res Stormwater Program	1,145,000	93.96%	1,075,876	6.10%	0.00%	0.00%	100.00%	
Class 200 - Wastewater Collection Mains	600,000	93.96%	563,778	3.20%	0.00%	100.00%	0.00%	
Class 200 - GSI Implementation	1,937,400	93.96%	1,820,439	10.33%	0.00%	100.00%	0.00%	
Class 200 - All Other - Office of Watersheds	10,483,600	93.96%	9,850,705	55.89%	40.00%	60.00%	0.00%	
Class 200 - All Other - BLS	2,418,100	93.96%	2,272,119	12.89%	40.00%	60.00%	0.00%	
Class 200 - All Other - P&R	2,173,100	93.96%	2,041,910	11.59%	40.00%	60.00%	0.00%	
Class 200 - Total	200	18,757,200	93.96%	17,624,827	100.00%	32.15%	61.75%	6.10%

Direct O&M - Water and Sewer Allocation						Assumptions - 23		
	2018	Actual/Budget	2018	Distribution	Allocation			
					Budget Detail	Factor	Estimated Actual	Water
Class 300 - Office of Watersheds	125,100	75.82%	94,855	8.76%	0.00%	0.00%	100.00%	
Class 300 - BLS	1,252,300	75.82%	949,531	87.64%	40.00%	60.00%	0.00%	
Class 300 - P&R	5,400	75.82%	4,094	0.38%	40.00%	60.00%	0.00%	
Class 300 - GSI Implementation	46,050	75.82%	34,916	3.22%	0.00%	100.00%	0.00%	
Class 300 - Total	300 1,428,850	75.82%	1,083,396	100.00%	35.21%	56.04%	8.76%	
Class 400 - Office of Watersheds	4,000	32.96%	1,318	0.49%	0.00%	0.00%	100.00%	
Class 400 - BLS	772,800	32.96%	254,698	94.42%	40.00%	60.00%	0.00%	
Class 400 - P&R	19,345	32.96%	6,376	2.36%	40.00%	60.00%	0.00%	
Class 300 - GSI Implementation	22,296	32.96%	7,348	2.72%	0.00%	100.00%	0.00%	
Class 400 - Total	400 818,441	32.96%	269,740	100.00%	38.71%	60.80%	0.49%	
Class 500 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 500 - All Other	0	0.00%	-	0.00%	40.00%	60.00%	0.00%	
Class 500 - Total	500 0	0.00%	-	0.00%	100.00%	0.00%	0.00%	
Class 800 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 800 - All Other	0	0.00%	-	0.00%	40.00%	60.00%	0.00%	
Class 800 - Total	800 0	0.00%	-	0.00%	100.00%	0.00%	0.00%	
Subtotal Planning & Environmental Services	35,719,187	93.50%	33,398,367					

Direct O&M - Water and Sewer Allocation						Assumptions - 23		
	2018 Budget Detail	Actual/Budget Factor	2018 Estimated Actual	Distribution	Allocation			
					Water	Wastewater	Stormwater	
Public Affairs								
Class 100 - xxxxxxxxxx	0	89.47%	-	0.00%	0.00%	0.00%	100.00%	
Class 100 - All Other	5,246,556	89.47%	4,694,141	100.00%	50.00%	50.00%	0.00%	
Class 100 - Total	200 5,246,556	89.47%	4,694,141	100.00%	50.00%	50.00%	0.00%	
Class 200 - Stormwater Res	0	90.50%	-	0.00%	0.00%	0.00%	100.00%	
Class 200 - Stormwater Non-Res	0	90.50%	-	0.00%	0.00%	0.00%	100.00%	
Class 200 - Wastewater Collection Mains	550,000	90.50%	497,729	6.10%	0.00%	100.00%	0.00%	
Class 200 - All Other - A&G Volume	3,995,000	90.50%	3,615,323	44.32%	50.00%	50.00%	0.00%	
Class 200 - All Other - A&G Customer	2,830,000	90.50%	2,561,042	31.40%	50.00%	50.00%	0.00%	
Class 200 - All Other - A&G	1,638,200	90.50%	1,482,508	18.18%	50.00%	50.00%	0.00%	
Class 200 - Total	200 9,013,200	90.50%	8,156,602	100.00%	46.95%	53.05%	0.00%	
Class 300 - xxxxxxxxxx	0	58.24%	-	0.00%	0.00%	0.00%	100.00%	
Class 300 - All Other	539,124	58.24%	313,998	100.00%	50.00%	50.00%	0.00%	
Class 300 - Total	300 539,124	58.24%	313,998	100.00%	50.00%	50.00%	0.00%	
Class 400 - xxxxxxxxxx	0	134.15%	-	0.00%	0.00%	0.00%	100.00%	
Class 400 - All Other	15,500	134.15%	20,793	100.00%	50.00%	50.00%	0.00%	
Class 400 - Total	400 15,500	134.15%	20,793	100.00%	50.00%	50.00%	0.00%	
Class 500 - xxxxxxxxxx	0	100.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 500 - All Other	500,000	100.00%	500,000	100.00%	50.00%	50.00%	0.00%	
Class 500 - Total	500 500,000	100.00%	500,000	100.00%	50.00%	50.00%	0.00%	
Class 800 - xxxxxxxxxx	0	0.00%	-	0.00%	0.00%	0.00%	100.00%	
Class 800 - All Other	0	0.00%	-	0.00%	50.00%	50.00%	0.00%	
Class 800 - Total	800 0	0.00%	-	0.00%	100.00%	0.00%	0.00%	
Subtotal Public Affairs	15,314,380	89.36%	13,685,534					
	CHECK							
Total								

Direct O&M - Water and Sewer Allocation - Operations Class 100							Assumptions - 24		
		2018	Actual/Budget	2018	Distribution	Allocation			
		Budget Detail	Factor	Estimated Actual		Water	Wastewater	Stormwater	
Water Direct Costs									
Baxter Treatment Plant	x	3,118,263	98.10%	3,059,171	3.81%	100.00%	0.00%	0.00%	
Queen Lane Treatment Plant	x	3,071,643	98.10%	3,013,435	3.76%	100.00%	0.00%	0.00%	
Belmont Treatment Plant	x	3,003,166	98.10%	2,946,255	3.67%	100.00%	0.00%	0.00%	
Conveyance Headquarters			98.10%	-	0.00%	100.00%	0.00%	0.00%	
Load Control	x	1,790,186	98.10%	1,756,262	2.19%	100.00%	0.00%	0.00%	
Distribution	x	14,953,679	98.10%	14,670,303	18.29%	100.00%	0.00%	0.00%	
Pumping	x	2,679,961	98.10%	2,629,175	3.28%	100.00%	0.00%	0.00%	
Emergency & Support Services			98.10%	-	0.00%	100.00%	0.00%	0.00%	
Sewer Direct Costs									
Biosolids Engr Services			98.10%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Utilization			98.10%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Processing			98.10%	-	0.00%	0.00%	100.00%	0.00%	
NEWPCP	x	7,053,558	98.10%	6,919,891	8.63%	0.00%	100.00%	0.00%	
SWWPCP	x	6,965,757	98.10%	6,833,754	8.52%	0.00%	100.00%	0.00%	
SEWPCP	x	3,816,363	98.10%	3,744,042	4.67%	0.00%	100.00%	0.00%	
Industrial Waste		1,680,188	98.10%	1,648,348	2.06%	0.00%	100.00%	0.00%	
Sewer Maintenance	x	10,539,931	98.10%	10,340,197	12.89%	0.00%	100.00%	0.00%	
Inlet Cleaning	x	5,062,956	98.10%	4,967,012	6.19%	0.00%	100.00%	0.00%	
Interceptors/Flow Control	x	4,520,958	98.10%	4,435,285	5.53%	0.00%	100.00%	0.00%	
GSI Maintenance	x	1,000,868	98.10%	981,901	1.22%	0.00%	100.00%	0.00%	
Collector System Support	x	950,140	98.10%	932,135	1.16%	0.00%	100.00%	0.00%	
Allocated Costs									
Treatment Headquarters (50/50)	x	488,485	98.10%	479,228	0.60%	50.00%	50.00%	0.00%	
Machine Shops (50/50)			98.10%	-	0.00%	50.00%	50.00%	0.00%	
Building Maintenance (50/50)			98.10%	-	0.00%	50.00%	50.00%	0.00%	
Security (50/50)			98.10%	-	0.00%	50.00%	50.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50)		5,254,128	98.10%	5,154,561	6.43%	50.00%	50.00%	0.00%	
Materials Management (50/50)	x	1,802,626	98.10%	1,768,466	2.20%	50.00%	50.00%	0.00%	
Customer Service (50/50)	x	1,561,922	98.10%	1,532,323	1.91%	50.00%	50.00%	0.00%	
Warranty Program			98.10%	-	0.00%	50.00%	50.00%	0.00%	
Meter Shop (50/50)	x	2,442,649	98.10%	2,396,360	2.99%	50.00%	50.00%	0.00%	
Automotive Maintenance (35/65)		0	98.10%	-	0.00%	35.00%	65.00%	0.00%	
Total		81,757,427	98.10%	80,208,104	100.00%	42.07%	57.93%	0.00%	

Direct O&M - Water and Sewer Allocation - Operations Power Costs				Assumptions - 25A		
	2018 Budget Detail	2018 Estimated Actual	Distribution	Allocation		
				Water	Wastewater	Stormwater
Water Direct Costs						
Baxter Treatment Plant		-	0.00%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant		-	0.00%	100.00%	0.00%	0.00%
Belmont Treatment Plant		-	0.00%	100.00%	0.00%	0.00%
Conveyance Headquarters		-	0.00%	100.00%	0.00%	0.00%
Load Control	51.70%	9,504,971	51.70%	100.00%	0.00%	0.00%
Distribution	0.50%	91,924	0.50%	100.00%	0.00%	0.00%
Pumping		-	0.00%	100.00%	0.00%	0.00%
Emergency & Support Services		-	0.00%	100.00%	0.00%	0.00%
Sewer Direct Costs						
Biosolids Engr Services		-	0.00%	0.00%	100.00%	0.00%
Biosolids Utilization		-	0.00%	0.00%	100.00%	0.00%
Biosolids Processing		-	0.00%	0.00%	100.00%	0.00%
NEWPCP	7.90%	1,452,404	7.90%	0.00%	100.00%	0.00%
SWWPCP	27.10%	4,982,297	27.10%	0.00%	100.00%	0.00%
SEWPCP	7.30%	1,342,095	7.30%	0.00%	100.00%	0.00%
Industrial Waste		-	0.00%	0.00%	100.00%	0.00%
Sewer Maintenance		-	0.00%	0.00%	100.00%	0.00%
Inlet Cleaning		-	0.00%	0.00%	100.00%	0.00%
Interceptors/Flow Control	4.10%	753,779	4.10%	0.00%	100.00%	0.00%
GSI Maintenance		-	0.00%	0.00%	100.00%	0.00%
Collector System Support	0.40%	73,539	0.40%	0.00%	100.00%	0.00%
Allocated Costs						
Treatment Headquarters (50/50)	1.00%	183,849	1.00%	50.00%	50.00%	0.00%
Machine Shops (50/50)		-	0.00%	50.00%	50.00%	0.00%
Building Maintenance (50/50)		-	0.00%	50.00%	50.00%	0.00%
Security (50/50)		-	0.00%	50.00%	50.00%	0.00%
Operations Admin/Delinquencies/Plumbing. (50/50)		-	0.00%	50.00%	50.00%	0.00%
Materials Management (50/50)		-	0.00%	50.00%	50.00%	0.00%
Customer Service (50/50)		-	0.00%	50.00%	50.00%	0.00%
Warranty Program		-	0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)		-	0.00%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)		-	0.00%	35.00%	65.00%	0.00%
Total	100.00%	18,384,858	100.00%	52.70%	47.30%	0.00%

Direct O&M - Water and Sewer Allocation - Operations Gas Costs						Assumptions - 25B		
	2018	Actual/Budget Factor	2018	Distribution	Allocation			
	Budget Detail		Estimated Actual		Water	Wastewater	Stormwater	
Water Direct Costs								
Baxter Treatment Plant			-	0.00%	100.00%	0.00%	0.00%	
Queen Lane Treatment Plant			-	0.00%	100.00%	0.00%	0.00%	
Belmont Treatment Plant			-	0.00%	100.00%	0.00%	0.00%	
Conveyance Headquarters			-	0.00%	100.00%	0.00%	0.00%	
Load Control	8.70%		411,952	8.70%	100.00%	0.00%	0.00%	
Distribution	0.80%		37,881	0.80%	100.00%	0.00%	0.00%	
Pumping			-	0.00%	100.00%	0.00%	0.00%	
Emergency & Support Services			-	0.00%	100.00%	0.00%	0.00%	
Sewer Direct Costs								
Biosolids Engr Services			-	0.00%	0.00%	100.00%	0.00%	
Biosolids Utilization			-	0.00%	0.00%	100.00%	0.00%	
Biosolids Processing	67.20%		3,181,981	67.20%	0.00%	100.00%	0.00%	
NEWPCP	19.60%		928,078	19.60%	0.00%	100.00%	0.00%	
SWWPCP	0.00%		-	0.00%	0.00%	100.00%	0.00%	
SEWPCP	1.00%		47,351	1.00%	0.00%	100.00%	0.00%	
Industrial Waste			-	0.00%	0.00%	100.00%	0.00%	
Sewer Maintenance			-	0.00%	0.00%	100.00%	0.00%	
Inlet Cleaning			-	0.00%	0.00%	100.00%	0.00%	
Interceptors/Flow Control	0.00%		-	0.00%	0.00%	100.00%	0.00%	
GSI Maintenance			-	0.00%	0.00%	100.00%	0.00%	
Collector System Support	0.60%		28,411	0.60%	0.00%	100.00%	0.00%	
Allocated Costs								
Treatment Headquarters (50/50)	2.10%		99,437	2.10%	50.00%	50.00%	0.00%	
Machine Shops (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Building Maintenance (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Security (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Materials Management (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Customer Service (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Warranty Program			-	0.00%	50.00%	50.00%	0.00%	
Meter Shop (50/50)			-	0.00%	50.00%	50.00%	0.00%	
Automotive Maintenance (35/65)			-	0.00%	35.00%	65.00%	0.00%	
Total	100.00%		4,735,091	100.00%	10.55%	89.45%	0.00%	

Direct O&M - Water and Sewer Allocation - Operations Class 200 Excluding Power and Gas						Assumptions - 26		
	2018	Actual/Budget	2018	Distribution	Allocation			
	Budget Detail	Factor	Estimated Actual		Water	Wastewater	Stormwater	
Water Direct Costs								
Baxter Treatment Plant	723,150	88.86%	642,608	1.03%	100.00%	0.00%	0.00%	
Queen Lane Treatment Plant	965,350	88.86%	857,832	1.37%	100.00%	0.00%	0.00%	
Belmont Treatment Plant	629,000	88.86%	558,944	0.89%	100.00%	0.00%	0.00%	
Conveyance Headquarters		88.86%	-	0.00%	100.00%	0.00%	0.00%	
Load Control	1,303,047	88.86%	1,157,918	1.85%	100.00%	0.00%	0.00%	
Distribution	1,298,000	88.86%	1,153,433	1.84%	100.00%	0.00%	0.00%	
Pumping	353,300	88.86%	313,951	0.50%	100.00%	0.00%	0.00%	
Emergency & Support Services		88.86%	-	0.00%	100.00%	0.00%	0.00%	
Sewer Direct Costs								
Biosolids Engr Services		88.86%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Utilization	0	88.86%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Processing	22,525,000	88.86%	20,016,239	32.01%	0.00%	100.00%	0.00%	
NEWPCP	11,429,858	88.86%	10,156,837	16.24%	0.00%	100.00%	0.00%	
SWWPCP	3,349,500	88.86%	2,976,444	4.76%	0.00%	100.00%	0.00%	
SEWPCP	1,019,450	88.86%	905,907	1.45%	0.00%	100.00%	0.00%	
Industrial Waste	87,030	88.86%	77,337	0.12%	0.00%	100.00%	0.00%	
Sewer Maintenance	3,119,300	88.86%	2,771,882	4.43%	0.00%	100.00%	0.00%	
Inlet Cleaning	63,400	88.86%	56,339	0.09%	0.00%	100.00%	0.00%	
Interceptors/Flow Control	3,614,000	88.86%	3,211,484	5.14%	0.00%	100.00%	0.00%	
GSI Maintenance	4,035,200	88.86%	3,585,773	5.73%	0.00%	100.00%	0.00%	
Collector System Support	32,100	88.86%	28,525	0.05%	0.00%	100.00%	0.00%	
Allocated Costs								
Treatment Headquarters (50/50)	251,350	88.86%	223,355	0.36%	50.00%	50.00%	0.00%	
Machine Shops (50/50)		88.86%	-	0.00%	50.00%	50.00%	0.00%	
Building Maintenance (50/50)		88.86%	-	0.00%	50.00%	50.00%	0.00%	
Security (50/50)		88.86%	-	0.00%	50.00%	50.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50)	8,068,750	88.86%	7,170,079	11.47%	50.00%	50.00%	0.00%	
Materials Management (50/50)	200,000	88.86%	177,725	0.28%	50.00%	50.00%	0.00%	
Customer Service (50/50)	5,048,000	88.86%	4,485,770	7.17%	50.00%	50.00%	0.00%	
Warranty Program		88.86%	-	0.00%	50.00%	50.00%	0.00%	
Meter Shop (50/50)	2,253,750	88.86%	2,002,735	3.20%	50.00%	50.00%	0.00%	
Automotive Maintenance (35/65)	0	88.86%	-	0.00%	35.00%	65.00%	0.00%	
Total	70,368,535	88.86%	62,531,117	100.00%	18.73%	81.27%	0.00%	

Direct O&M - Water and Sewer Allocation - Operations Chemical Costs						Assumptions - 27		
	2018	Actual/Budget Factor	2018	Distribution	Allocation			
	Budget Detail		Estimated Actual		Water	Wastewater	Stormwater	
Water Direct Costs								
Baxter Treatment Plant	9,144,000	93.85%	8,581,603	41.81%	100.00%	0.00%	0.00%	
Queen Lane Treatment Plant	5,011,580	93.85%	4,703,345	22.91%	100.00%	0.00%	0.00%	
Belmont Treatment Plant	4,322,609	93.85%	4,056,749	19.76%	100.00%	0.00%	0.00%	
Conveyance Headquarters		93.85%	-	0.00%	100.00%	0.00%	0.00%	
Load Control	0	93.85%	-	0.00%	100.00%	0.00%	0.00%	
Distribution	50,000	93.85%	46,925	0.23%	100.00%	0.00%	0.00%	
Pumping	2,850	93.85%	2,675	0.01%	100.00%	0.00%	0.00%	
Emergency & Support Services		93.85%	-	0.00%	100.00%	0.00%	0.00%	
Sewer Direct Costs								
Biosolids Engr Services	0	93.85%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Utilization	0	93.85%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Processing		93.85%	-	0.00%	0.00%	100.00%	0.00%	
NEWPCP	867,350	93.85%	814,004	3.97%	0.00%	100.00%	0.00%	
SWWPCP	441,750	93.85%	414,580	2.02%	0.00%	100.00%	0.00%	
SEWPCP	461,000	93.85%	432,646	2.11%	0.00%	100.00%	0.00%	
Industrial Waste		93.85%	-	0.00%	0.00%	100.00%	0.00%	
Sewer Maintenance	10,609	93.85%	9,956	0.05%	0.00%	100.00%	0.00%	
Inlet Cleaning	2,000	93.85%	1,877	0.01%	0.00%	100.00%	0.00%	
Interceptors/Flow Control	1,511,000	93.85%	1,418,067	6.91%	0.00%	100.00%	0.00%	
GSI Maintenance	5,000	93.85%	4,692	0.02%	0.00%	100.00%	0.00%	
Collector System Support	0	93.85%	-	0.00%	0.00%	100.00%	0.00%	
Allocated Costs								
Treatment Headquarters (50/50)	1,957	93.85%	1,837	0.01%	50.00%	50.00%	0.00%	
Machine Shops (50/50)	0	93.85%	-	0.00%	50.00%	50.00%	0.00%	
Building Maintenance (50/50)	0	93.85%	-	0.00%	50.00%	50.00%	0.00%	
Security (50/50)	0	93.85%	-	0.00%	50.00%	50.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50)	0	93.85%	-	0.00%	50.00%	50.00%	0.00%	
Materials Management (50/50)	41,200	93.85%	38,666	0.19%	50.00%	50.00%	0.00%	
Customer Service (50/50)	0	93.85%	-	0.00%	50.00%	50.00%	0.00%	
Warranty Program		93.85%	-	0.00%	50.00%	50.00%	0.00%	
Meter Shop (50/50)	0	93.85%	-	0.00%	50.00%	50.00%	0.00%	
Automotive Maintenance (35/65)	0	93.85%	-	0.00%	35.00%	65.00%	0.00%	
Total	21,872,905	93.85%	20,527,622	100.00%	84.82%	15.18%	0.00%	

Direct O&M - Water and Sewer Allocation - Operations Class 300 Excluding Chemicals						Assumptions - 28		
	2018	Actual/Budget	2018	Distribution	Allocation			
	Budget Detail	Factor	Estimated Actual		Water	Wastewater	Stormwater	
Water Direct Costs								
Baxter Treatment Plant	1,220,440	82.35%	1,004,982	6.07%	100.00%	0.00%	0.00%	
Queen Lane Treatment Plant	987,000	82.35%	812,754	4.91%	100.00%	0.00%	0.00%	
Belmont Treatment Plant	852,250	82.35%	701,792	4.24%	100.00%	0.00%	0.00%	
Conveyance Headquarters		82.35%	-	0.00%	100.00%	0.00%	0.00%	
Load Control	123,150	82.35%	101,409	0.61%	100.00%	0.00%	0.00%	
Distribution	265,000	82.35%	218,216	1.32%	100.00%	0.00%	0.00%	
Pumping	449,200	82.35%	369,898	2.23%	100.00%	0.00%	0.00%	
Emergency & Support Services		82.35%	-	0.00%	100.00%	0.00%	0.00%	
Sewer Direct Costs								
Biosolids Engr Services		82.35%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Utilization		82.35%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Processing	50,000	82.35%	41,173	0.25%	0.00%	100.00%	0.00%	
NEWPCP	1,928,975	82.35%	1,588,431	9.60%	0.00%	100.00%	0.00%	
SWWPCP	1,267,800	82.35%	1,043,981	6.31%	0.00%	100.00%	0.00%	
SEWPCP	1,811,250	82.35%	1,491,489	9.01%	0.00%	100.00%	0.00%	
Industrial Waste	105,870	82.35%	87,180	0.53%	0.00%	100.00%	0.00%	
Sewer Maintenance	778,228	82.35%	640,838	3.87%	0.00%	100.00%	0.00%	
Inlet Cleaning	117,686	82.35%	96,910	0.59%	0.00%	100.00%	0.00%	
Interceptors/Flow Control	1,056,500	82.35%	869,984	5.26%	0.00%	100.00%	0.00%	
GSI Maintenance	323,207	82.35%	266,148	1.61%	0.00%	100.00%	0.00%	
Collector System Support	2,163	82.35%	1,781	0.01%	0.00%	100.00%	0.00%	
Allocated Costs								
Treatment Headquarters (50/50)	7,927	82.35%	6,528	0.04%	50.00%	50.00%	0.00%	
Machine Shops (50/50)		82.35%	-	0.00%	50.00%	50.00%	0.00%	
Building Maintenance (50/50)		82.35%	-	0.00%	50.00%	50.00%	0.00%	
Security (50/50)		82.35%	-	0.00%	50.00%	50.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50)	753,950	82.35%	620,847	3.75%	50.00%	50.00%	0.00%	
Materials Management (50/50)	7,861,990	82.35%	6,474,022	39.11%	50.00%	50.00%	0.00%	
Customer Service (50/50)	33,332	82.35%	27,448	0.17%	50.00%	50.00%	0.00%	
Warranty Program		82.35%	-	0.00%	50.00%	50.00%	0.00%	
Meter Shop (50/50)	105,875	82.35%	87,184	0.53%	50.00%	50.00%	0.00%	
Automotive Maintenance (35/65)	0	82.35%	-	0.00%	35.00%	65.00%	0.00%	
Total	20,101,793	82.35%	16,552,995	100.00%	41.18%	58.82%	0.00%	

Direct O&M - Water and Sewer Allocation - Operations Class 400						Assumptions - 29		
	2018	Actual/Budget Factor	2018	Distribution	Allocation			
	Budget Detail		Estimated Actual		Water	Wastewater	Stormwater	
Water Direct Costs								
Baxter Treatment Plant	125,529	80.16%	100,618	6.33%	100.00%	0.00%	0.00%	
Queen Lane Treatment Plant	108,800	80.16%	87,209	5.49%	100.00%	0.00%	0.00%	
Belmont Treatment Plant	39,000	80.16%	31,260	1.97%	100.00%	0.00%	0.00%	
Conveyance Headquarters	0	80.16%	-	0.00%	100.00%	0.00%	0.00%	
Load Control	38,500	80.16%	30,860	1.94%	100.00%	0.00%	0.00%	
Distribution	209,000	80.16%	167,524	10.55%	100.00%	0.00%	0.00%	
Pumping	52,850	80.16%	42,362	2.67%	100.00%	0.00%	0.00%	
Emergency & Support Services		80.16%	-	0.00%	100.00%	0.00%	0.00%	
Sewer Direct Costs								
Biosolids Engr Services		80.16%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Utilization		80.16%	-	0.00%	0.00%	100.00%	0.00%	
Biosolids Processing	0	80.16%	-	0.00%	0.00%	100.00%	0.00%	
NEWPCP	187,100	80.16%	149,970	9.44%	0.00%	100.00%	0.00%	
SWWPCP	251,650	80.16%	201,710	12.70%	0.00%	100.00%	0.00%	
SEWPCP	272,750	80.16%	218,623	13.76%	0.00%	100.00%	0.00%	
Industrial Waste	16,600	80.16%	13,306	0.84%	0.00%	100.00%	0.00%	
Sewer Maintenance	87,955	80.16%	70,500	4.44%	0.00%	100.00%	0.00%	
Inlet Cleaning	30,385	80.16%	24,355	1.53%	0.00%	100.00%	0.00%	
Interceptors/Flow Control	24,500	80.16%	19,638	1.24%	0.00%	100.00%	0.00%	
GSI Maintenance	50,500	80.16%	40,478	2.55%	0.00%	100.00%	0.00%	
Collector System Support	0	80.16%	-	0.00%	0.00%	100.00%	0.00%	
Allocated Costs								
Treatment Headquarters (50/50)	4,378	80.16%	3,509	0.22%	50.00%	50.00%	0.00%	
Machine Shops (50/50)		80.16%	-	0.00%	50.00%	50.00%	0.00%	
Building Maintenance (50/50)		80.16%	-	0.00%	50.00%	50.00%	0.00%	
Security (50/50)		80.16%	-	0.00%	50.00%	50.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50)	361,000	80.16%	289,360	18.21%	50.00%	50.00%	0.00%	
Materials Management (50/50)	1,000	80.16%	802	0.05%	50.00%	50.00%	0.00%	
Customer Service (50/50)	10,200	80.16%	8,176	0.51%	50.00%	50.00%	0.00%	
Warranty Program		80.16%	-	0.00%	50.00%	50.00%	0.00%	
Meter Shop (50/50)	110,200	80.16%	88,331	5.56%	50.00%	50.00%	0.00%	
Automotive Maintenance (35/65)	0	80.16%	-	0.00%	35.00%	65.00%	0.00%	
Total	1,981,897	80.16%	1,588,591	100.00%	41.23%	58.77%	0.00%	

Other Department O&M Actual to Budget Factors											Assumptions - 30A				
	Use		Historical Averages				Actual to Budget Factor								
			1 Year	2 Year	3 Year	5 Year	2016	2015	2014	2013	2012				
Other Department O&M															
Division of Technology															
Salaries & Wages	100	88.14%	86.45%	88.14%	86.35%	81.96%	86.45%	89.96%	82.50%	72.12%	77.57%				
Services	200	76.87%	67.71%	76.87%	80.25%	79.50%	67.71%	88.54%	88.47%	91.82%	65.00%				
Materials and Supplies	300	63.94%	41.88%	63.94%	67.38%	64.56%	41.88%	88.52%	78.33%	59.32%	58.81%				
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal Division of Technology			70.54%	78.92%	80.97%	79.03%	70.54%	88.97%	85.88%	82.76%	68.38%				
Mayor's Office of Transportation & Utilities															
Salaries & Wages	100	99.20%	99.72%	99.20%	97.05%	97.81%	99.72%	98.74%	92.89%	100.00%	100.00%				
Services	200	100.00%	100.00%	100.00%	25.77%	16.41%	100.00%		0.00%	0.00%					
Materials and Supplies	300	0.00%													
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal Mayor's Office of Transportation & Utilities			99.76%	99.25%	86.33%	83.85%	99.76%	98.74%	67.05%	71.91%	100.00%				
Philadelphia Water, Sewer and Stormwater Rate Board															
Salaries & Wages	100	100.00%													
Services	200	100.00%													
Materials and Supplies	300	0.00%													
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board															
Public Property															
Salaries & Wages	100	0.00%													
Services	200	100.00%	100.00%	100.00%	100.00%	99.93%	100.00%	100.00%	100.00%	100.00%	99.63%				
Materials and Supplies	300	0.00%													
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal Public Property			100.00%	100.00%	100.00%	99.93%	100.00%	100.00%	100.00%	100.00%	99.63%				
Fleet Management															
Salaries & Wages	100	86.38%	85.10%	86.38%	88.10%	88.82%	85.10%	87.65%	91.82%	93.02%	86.93%				
Services	200	99.31%	98.67%	99.31%	98.42%	87.95%	98.67%	99.95%	96.63%	60.10%	84.40%				
Materials and Supplies	300	94.83%	90.66%	94.83%	96.18%	93.86%	90.66%	99.01%	98.86%	88.18%	92.60%				
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal Fleet Management			90.13%	92.72%	93.86%	91.18%	90.13%	95.31%	96.20%	84.83%	89.34%				

Other Department O&M Actual to Budget Factors											Assumptions - 30A				
Use	Historical Averages					Actual to Budget Factor									
	1 Year	2 Year	3 Year	5 Year	2016	2015	2014	2013	2012						
City Finance 0 0															
Salaries & Wages	100	0.00%													
Benefits	1xx	89.96%	89.01%	89.96%	91.34%	91.33%	89.01%	90.91%	94.73%	93.60%	89.02%				
Pension	191	98.85%	100.25%	98.85%	91.61%	88.12%	100.25%	97.29%	78.49%	76.13%	89.94%				
Pension Obligations	190	100.35%	103.05%	100.35%	135.48%	144.05%	103.05%	97.57%	215.87%	216.88%	102.90%				
Services	200	0.00%													
Materials and Supplies	300	0.00%													
Equipment	400	0.00%													
Indemnities	500	71.39%	83.70%	71.39%	78.55%	72.17%	83.70%	59.09%	92.86%	78.31%	46.88%				
Transfers	800	0.00%													
Subtotal City Finance 0 0			94.58%	93.38%	95.15%	93.98%	94.58%	92.14%	98.90%	95.95%	88.03%				
City Finance 0															
Salaries & Wages	100	0.00%													
Benefits	1xx	89.96%													
Pension	191	98.85%													
Pension Obligations	190	100.35%													
Services	200	0.00%													
Materials and Supplies	300	0.00%													
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal City Finance 0															
Revenue															
Salaries & Wages	100	88.55%	89.31%	88.55%	87.94%	88.72%	89.31%	87.81%	86.71%	92.14%	87.72%				
Services	200	99.88%	99.84%	99.88%	100.17%	99.25%	99.84%	99.92%	100.80%	99.93%	95.47%				
Materials and Supplies	300	95.57%	92.73%	95.57%	92.43%	79.34%	92.73%	98.42%	87.32%	69.45%	58.19%				
Equipment	400	0.00%													
Indemnities	500	18.51%	11.56%	18.51%	20.28%	17.61%	11.56%	25.46%	32.07%	11.33%	10.50%				
Transfers	800	0.00%													
Subtotal Revenue			92.32%	91.84%	91.34%	90.98%	92.32%	91.36%	90.33%	92.96%	87.90%				
Procurement															
Salaries & Wages	100	89.30%	99.94%	89.30%	89.79%	87.24%	99.94%	78.66%	90.90%	99.79%	66.43%				
Services	200	0.00%													
Materials and Supplies	300	0.00%													
Equipment	400	0.00%													
Indemnities	500	0.00%													
Transfers	800	0.00%													
Subtotal Procurement			99.94%	89.30%	89.79%	87.24%	99.94%	78.66%	90.90%	99.79%	66.43%				

		Other Department O&M Actual to Budget Factors					Assumptions - 30A				
		Use	Historical Averages				Actual to Budget Factor				
	1 Year		2 Year	3 Year	5 Year	2016	2015	2014	2013	2012	
Law											
Salaries & Wages	100	84.24%	83.20%	84.24%	86.17%	90.59%	83.20%	85.29%	90.15%	96.11%	99.18%
Services	200	35.66%	26.55%	35.66%	56.10%	68.83%	26.55%	44.77%	96.99%	78.62%	97.21%
Materials and Supplies	300	30.66%	42.72%	30.66%	33.36%	52.74%	42.72%	18.60%	38.74%	84.61%	79.00%
Equipment	400	0.00%									
Indemnities	500	0.00%									
Transfers	800	0.00%									
Subtotal Law			70.57%	73.16%	79.00%	85.31%	70.57%	75.76%	90.95%	92.06%	98.45%
Other Department O&M Expenses Summary											
Salaries & Wages	100		87.46%	87.80%	87.45%	87.28%	87.46%	88.14%	86.73%	87.63%	86.37%
Benefits	1xx		89.01%	89.96%	91.34%	91.33%	89.01%	90.91%	94.73%	93.60%	89.02%
Pension	191		100.25%	98.85%	91.61%	88.12%	100.25%	97.29%	78.49%	76.13%	89.94%
Pension Obligations	190		103.05%	100.35%	135.48%	144.05%	103.05%	97.57%	215.87%	216.88%	102.90%
Services	200		79.23%	85.24%	87.76%	87.02%	79.23%	92.20%	93.46%	91.86%	79.73%
Power	220										
Materials and Supplies	300		76.41%	85.87%	88.14%	85.15%	76.41%	95.63%	93.09%	79.85%	81.17%
Chemicals	307										
Equipment	400										
Indemnities	500		83.64%	71.35%	78.51%	72.14%	83.64%	59.06%	92.85%	78.30%	46.86%
Transfers	800										
Total Other Department O&M Expenses Summary			90.65%	91.18%	92.79%	91.74%	90.65%	91.73%	96.24%	93.56%	86.38%
Total Water Fund			89.12%	89.69%	89.97%	89.85%	89.12%	90.27%	90.56%	89.74%	89.58%

		Actual					Budget					Assumptions - 30B
		2016	2015	2014	2013	2012	2016	2015	2014	2013	2012	
Other Department O&M Actual to Budget Factors												
Other Department O&M												
Division of Technology												
Salaries & Wages	100	\$ 5,416,218	\$ 5,233,042	\$ 4,621,214	\$ 4,039,582	\$ 3,994,808	\$ 6,265,289	\$ 5,816,911	\$ 5,601,271	\$ 5,601,271	\$ 5,149,616	
Services	200	\$ 9,957,749	\$ 10,226,939	\$ 9,567,462	\$ 9,214,801	\$ 6,797,598	\$ 14,706,497	\$ 11,551,218	\$ 10,814,511	\$ 10,035,811	\$ 10,457,725	
Materials and Supplies	300	\$ 848,074	\$ 1,609,074	\$ 944,117	\$ 791,307	\$ 737,735	\$ 2,025,150	\$ 1,817,650	\$ 1,205,350	\$ 1,334,050	\$ 1,254,358	
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal Division of Technology		\$ 16,222,041	\$ 17,069,055	\$ 15,132,793	\$ 14,045,690	\$ 11,530,141	\$ 22,996,936	\$ 19,185,779	\$ 17,621,132	\$ 16,971,132	\$ 16,861,699	
Mayor's Office of Transportation & Utilities												
Salaries & Wages	100	\$ 201,861	\$ 227,983	\$ 208,176	\$ 169,948	\$ 56,160	\$ 202,424	\$ 230,886	\$ 224,100	\$ 169,948	\$ 56,160	
Services	200	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 86,400	\$ 66,400	\$ -	
Materials and Supplies	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal Mayor's Office of Transportation & Utilities		\$ 231,861	\$ 227,983	\$ 208,176	\$ 169,948	\$ 56,160	\$ 232,424	\$ 230,886	\$ 310,500	\$ 236,348	\$ 56,160	
Philadelphia Water, Sewer and Stormwater Rate Board												
Salaries & Wages	100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Services	200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Materials and Supplies	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Public Property												
Salaries & Wages	100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Services	200	\$ 4,042,633	\$ 3,959,919	\$ 3,786,428	\$ 3,739,360	\$ 3,725,560	\$ 4,042,633	\$ 3,959,919	\$ 3,786,428	\$ 3,739,360	\$ 3,739,360	
Materials and Supplies	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal Public Property		\$ 4,042,633	\$ 3,959,919	\$ 3,786,428	\$ 3,739,360	\$ 3,725,560	\$ 4,042,633	\$ 3,959,919	\$ 3,786,428	\$ 3,739,360	\$ 3,739,360	
Fleet Management												
Salaries & Wages	100	\$ 2,526,922	\$ 2,602,612	\$ 2,521,284	\$ 2,554,406	\$ 2,387,074	\$ 2,969,317	\$ 2,969,317	\$ 2,745,986	\$ 2,745,986	\$ 2,745,986	
Services	200	\$ 1,469,209	\$ 1,488,271	\$ 1,438,785	\$ 894,932	\$ 1,256,788	\$ 1,489,000	\$ 1,489,000	\$ 1,489,000	\$ 1,489,000	\$ 1,489,000	
Materials and Supplies	300	\$ 3,875,181	\$ 4,232,497	\$ 4,225,827	\$ 3,769,562	\$ 3,958,404	\$ 4,274,640	\$ 4,274,640	\$ 4,274,640	\$ 4,274,640	\$ 4,274,640	
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal Fleet Management		\$ 7,871,312	\$ 8,323,380	\$ 8,185,896	\$ 7,218,900	\$ 7,602,266	\$ 8,732,957	\$ 8,732,957	\$ 8,509,626	\$ 8,509,626	\$ 8,509,626	

		Other Department O&M Actual to Budget Factors					Assumptions - 30B				
		Actual					Budget				
		2016	2015	2014	2013	2012	2016	2015	2014	2013	2012
City Finance 0 0											
Salaries & Wages	100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	1xx	\$ 47,276,002	\$ 48,293,131	\$ 41,044,344	\$ 40,369,391	\$ 38,395,202	\$ 53,115,262	\$ 53,120,209	\$ 43,330,000	\$ 43,130,000	\$ 43,130,000
Pension	191	\$ 46,646,526	\$ 40,861,335	\$ 38,305,052	\$ 35,507,147	\$ 38,770,167	\$ 46,529,000	\$ 42,000,000	\$ 48,800,000	\$ 46,638,000	\$ 43,106,000
Pension Obligations	190	\$ 12,468,686	\$ 11,415,451	\$ 22,450,403	\$ 20,452,252	\$ 9,843,048	\$ 12,100,000	\$ 11,700,000	\$ 10,400,000	\$ 9,430,000	\$ 9,566,000
Services	200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials and Supplies	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Indemnities	500	\$ 5,440,242	\$ 3,840,767	\$ 6,036,098	\$ 5,090,210	\$ 3,046,915	\$ 6,500,000	\$ 6,500,000	\$ 6,500,000	\$ 6,500,000	\$ 6,500,000
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal City Finance 0 0		\$ 111,831,456	\$ 104,410,684	\$ 107,835,896	\$ 101,418,999	\$ 90,055,332	\$ 118,244,262	\$ 113,320,209	\$ 109,030,000	\$ 105,698,000	\$ 102,302,000
Revenue											
Salaries & Wages	100	\$ 9,948,364	\$ 10,013,594	\$ 9,701,251	\$ 10,020,393	\$ 9,729,716	\$ 11,138,839	\$ 11,404,254	\$ 11,188,570	\$ 10,874,716	\$ 11,092,316
Services	200	\$ 4,477,102	\$ 4,241,117	\$ 4,133,603	\$ 4,020,068	\$ 3,677,818	\$ 4,484,480	\$ 4,244,480	\$ 4,100,780	\$ 4,022,815	\$ 3,852,510
Materials and Supplies	300	\$ 594,307	\$ 630,784	\$ 688,157	\$ 561,421	\$ 525,300	\$ 640,920	\$ 640,920	\$ 788,120	\$ 808,425	\$ 902,800
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Indemnities	500	\$ 578	\$ 1,273	\$ 481	\$ 170	\$ 315	\$ 5,000	\$ 5,000	\$ 1,500	\$ 1,500	\$ 3,000
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Revenue		\$ 15,020,351	\$ 14,886,768	\$ 14,523,492	\$ 14,602,052	\$ 13,933,149	\$ 16,269,239	\$ 16,294,654	\$ 16,078,970	\$ 15,707,456	\$ 15,850,626
Procurement											
Salaries & Wages	100	\$ 77,339	\$ 60,866	\$ 62,746	\$ 68,882	\$ 45,856	\$ 77,383	\$ 77,383	\$ 69,028	\$ 69,028	\$ 69,028
Services	200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials and Supplies	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Procurement		\$ 77,339	\$ 60,866	\$ 62,746	\$ 68,882	\$ 45,856	\$ 77,383	\$ 77,383	\$ 69,028	\$ 69,028	\$ 69,028

		Other Department O&M Actual to Budget Factors					Assumptions - 30B				
		Actual					Budget				
		2016	2015	2014	2013	2012	2016	2015	2014	2013	2012
Law											
Salaries & Wages	100	\$ 2,085,052	\$ 2,137,491	\$ 2,192,613	\$ 2,281,362	\$ 2,286,502	\$ 2,506,206	\$ 2,506,206	\$ 2,432,087	\$ 2,373,754	\$ 2,305,324
Services	200	\$ 183,651	\$ 309,631	\$ 670,808	\$ 543,724	\$ 672,341	\$ 691,614	\$ 691,614	\$ 691,614	\$ 691,614	\$ 691,614
Materials and Supplies	300	\$ 18,376	\$ 8,002	\$ 16,663	\$ 36,392	\$ 33,976	\$ 43,010	\$ 43,010	\$ 43,010	\$ 43,010	\$ 43,010
Equipment	400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Indemnities	500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Law		\$ 2,287,079	\$ 2,455,124	\$ 2,880,084	\$ 2,861,478	\$ 2,992,819	\$ 3,240,830	\$ 3,240,830	\$ 3,166,711	\$ 3,108,378	\$ 3,039,948
Other Department O&M Expenses Summary											
Salaries & Wages	100	\$ 20,255,756	\$ 20,275,588	\$ 19,307,284	\$ 19,134,573	\$ 18,500,116	\$ 23,159,458	\$ 23,004,957	\$ 22,261,042	\$ 21,834,703	\$ 21,418,430
Benefits	1xx	47,276,002	48,293,131	41,044,344	40,369,391	38,395,202	53,115,262	53,120,209	43,330,000	43,130,000	43,130,000
Pension	191	46,646,526	40,861,335	38,305,052	35,507,147	38,770,167	46,529,000	42,000,000	48,800,000	46,638,000	43,106,000
Pension Obligations	190	12,468,686	11,415,451	22,450,403	20,452,252	9,843,048	12,100,000	11,700,000	10,400,000	9,430,000	9,566,000
Services	200	20,160,344	20,225,877	19,597,086	18,412,885	16,130,105	25,444,224	21,936,231	20,968,733	20,045,000	20,230,209
Power	220	-	-	-	-	-	-	-	-	-	-
Materials and Supplies	300	5,335,938	6,480,357	5,874,764	5,158,682	5,255,415	6,983,720	6,776,220	6,311,120	6,460,125	6,474,808
Chemicals	307	-	-	-	-	-	-	-	-	-	-
Equipment	400	-	-	-	-	-	-	-	-	-	-
Indemnities	500	5,440,820	3,842,040	6,036,579	5,090,380	3,047,230	6,505,000	6,505,000	6,501,500	6,501,500	6,503,000
Transfers	800	-	-	-	-	-	-	-	-	-	-
Total Other Department O&M Expenses Summary		\$ 157,584,072	\$ 151,393,779	\$ 152,615,511	\$ 144,125,309	\$ 129,941,283	\$ 173,836,664	\$ 165,042,617	\$ 158,572,395	\$ 154,039,328	\$ 150,428,447
Total Water Fund		\$ 433,618,002	\$ 424,318,674	\$ 407,545,325	\$ 399,243,964	\$ 374,621,246	\$ 486,540,664	\$ 470,059,076	\$ 450,008,505	\$ 444,902,678	\$ 418,208,147

Other Department O&M - Water and Sewer Allocation						Assumptions - 31		
		2018	Actual/Budget	2018	Distribution	Allocation		
		Budget Detail	Factor	Estimated Actual		Water	Wastewater	Stormwater
Other Department O&M								
Division of Technology								
Class 100 - UBIS		642,557	88.14%	566,350	10.26%	33.30%	33.40%	33.30%
Class 100 - All Other		5,622,732	88.14%	4,955,880	89.74%	61.00%	39.00%	0.00%
Class 100 - Total	100	6,265,289	88.14%	5,522,230	100.00%	58.16%	38.43%	3.42%
Class 200 - UBIS		6,199,400	76.87%	4,765,569	42.15%	33.30%	33.40%	33.30%
Class 200 - All Other		8,507,097	76.87%	6,539,529	57.85%	61.00%	39.00%	0.00%
Class 200 - Total	200	14,706,497	76.87%	11,305,098	100.00%	49.32%	36.64%	14.04%
Class 300 - UBIS		67,200	63.94%	42,969	31.08%	33.30%	33.40%	33.30%
Class 300 - All Other		149,000	63.94%	95,273	68.92%	61.00%	39.00%	0.00%
Class 300 - Total	300	216,200	63.94%	138,242	100.00%	52.39%	37.26%	10.35%
Class 400 - UBIS		561,900	0.00%	-	0.00%	33.30%	33.40%	33.30%
Class 400 - All Other		1,247,050	0.00%	-	0.00%	61.00%	39.00%	0.00%
Class 400 - Total	400	1,808,950	0.00%	-	0.00%	100.00%	0.00%	0.00%
Class 500 - UBIS		0	0.00%	-	0.00%	33.30%	33.40%	33.30%
Class 500 - All Other		0	0.00%	-	0.00%	61.00%	39.00%	0.00%
Class 500 - Total	500	0	0.00%	-	0.00%	100.00%	0.00%	0.00%
Class 800 - UBIS		0	0.00%	-	0.00%	33.30%	33.40%	33.30%
Class 800 - All Other		0	0.00%	-	0.00%	61.00%	39.00%	0.00%
Class 800 - Total	800	0	0.00%	-	0.00%	100.00%	0.00%	0.00%
Subtotal Division of Technology		22,996,936		16,965,570				

Other Department O&M - Water and Sewer Allocation						Assumptions - 31		
	2018	Actual/Budget	2018			Allocation		
	Budget Detail	Factor	Estimated Actual	Distribution		Water	Wastewater	Stormwater
Mayor's Office of Transportation & Utilities								
	100					36.00%	64.00%	0.00%
	200					36.00%	64.00%	0.00%
	300					36.00%	64.00%	0.00%
	400					36.00%	64.00%	0.00%
	500					36.00%	64.00%	0.00%
	800					36.00%	64.00%	0.00%
Subtotal Mayor's Office of Transportation & Utilities								
Philadelphia Water, Sewer and Stormwater Rate Board								
	100					36.00%	64.00%	0.00%
	200					36.00%	64.00%	0.00%
	300					36.00%	64.00%	0.00%
	400					36.00%	64.00%	0.00%
	500					36.00%	64.00%	0.00%
	800					36.00%	64.00%	0.00%
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board								
Public Property								
	100					36.00%	64.00%	0.00%
	200					36.00%	64.00%	0.00%
	300					36.00%	64.00%	0.00%
	400					36.00%	64.00%	0.00%
	500					36.00%	64.00%	0.00%
	800					36.00%	64.00%	0.00%
Subtotal Public Property								
Fleet Management								
	100					36.00%	64.00%	0.00%
	200					36.00%	64.00%	0.00%
	300					36.00%	64.00%	0.00%
	400					36.00%	64.00%	0.00%
	500					36.00%	64.00%	0.00%
	800					36.00%	64.00%	0.00%
Subtotal Fleet Management								

Other Department O&M - Water and Sewer Allocation **Assumptions - 31**

	2018 Budget Detail	Actual/Budget Factor	2018 Estimated Actual	Distribution	Allocation		
					Water	Wastewater	Stormwater
City Finance 0 0							
	100				36.00%	64.00%	0.00%
	1xx				NA	NA	NA
	191				NA	NA	NA
	190				NA	NA	NA
	200				36.00%	64.00%	0.00%
	300				36.00%	64.00%	0.00%
	400				36.00%	64.00%	0.00%
	500				37.00%	63.00%	0.00%
	800				36.00%	64.00%	0.00%
Subtotal City Finance 0 0							
City Finance (270)							
	100				46.00%	54.00%	0.00%
	1xx (270)				46.00%	54.00%	0.00%
	191 (270)				46.00%	54.00%	0.00%
	190 (270)				46.00%	54.00%	0.00%
	200				46.00%	54.00%	0.00%
	300				46.00%	54.00%	0.00%
	400				46.00%	54.00%	0.00%
	500				46.00%	54.00%	0.00%
	800				46.00%	54.00%	0.00%
Subtotal City Finance (270)							
Revenue							
	100				33.40%	33.30%	33.30%
	200				33.40%	33.30%	33.30%
	300				33.40%	33.30%	33.30%
	400				33.40%	33.30%	33.30%
	500				33.40%	33.30%	33.30%
	800				33.40%	33.30%	33.30%
Subtotal Revenue							

Other Department O&M - Water and Sewer Allocation **Assumptions - 31**

	2018 Budget Detail	Actual/Budget Factor	2018 Estimated Actual	Distribution	Allocation		
					Water	Wastewater	Stormwater
Procurement							
	100				36.00%	64.00%	0.00%
	200				36.00%	64.00%	0.00%
	300				36.00%	64.00%	0.00%
	400				36.00%	64.00%	0.00%
	500				36.00%	64.00%	0.00%
	800				36.00%	64.00%	0.00%
Subtotal Procurement							
Law							
	100				37.00%	63.00%	0.00%
	200				37.00%	63.00%	0.00%
	300				37.00%	63.00%	0.00%
	400				37.00%	63.00%	0.00%
	500				37.00%	63.00%	0.00%
	800				37.00%	63.00%	0.00%
Subtotal Law							

WTP Sludge Costs Growth											Assumptions - 32
	Use	Averages Growth			Annual Growth						
		1 Year	3 Year	5 Year	2017	2018	2019	2020	2021	2022	2023
WTP Sludge Costs	6.00%	7.35%	5.85%	5.92%		2.24%	6.53%	5.54%	5.79%	4.43%	7.35%

NOTE: ONLY REQUIRED FOR PROJECTIONS BEYOND FY 2023. PROJECTIONS THRU FY2023 REFLECT ALLOCATIONS FROM SCOS.

Liquidated Encumbrance Ratio										Assumptions - 33			
Use	Historical Averages			Liquidated Encumbrance Ratio									
	1 Year	3 Year	5 Year	2016	2015	2014	2013	2012					
Actual	15.77%	17.68%	17.57%	15.77%	12.53%	24.93%	20.45%	14.24%					
Budget	16.28%	13.75%	13.10%	16.28%	12.29%	12.56%	11.37%	12.80%					
Ratio: Liquidated Encumbrances to Total Class 200 & 300 O&M													
	2017	2018	2019	2020	2021	2022	2023	Projection beyond study period					
Liquidated Encumbrance Ratio	14.62%	15.12%	14.20%	14.20%	14.20%	14.20%	14.20%	2024	2025	2026	2027		
Projected Liquidated Encumbrance	24,549,754	24,000,000	23,239,971	23,852,585	24,495,016	25,157,728	25,841,390	26,546,691	27,274,346	28,025,090	28,799,685		

Liquidated Encumbrance Ratio	Class 200 (Excluding SMIP/GARP) & 300 O&M					Liquidated Encumbrances					Assumptions - 33
	2016	2015	2014	2013	2012	2016	2015	2014	2013	2012	
	Actual	\$ 152,782,604	\$ 154,790,275	\$ 150,180,463	\$ 152,337,151	\$ 146,123,301	\$ 24,088,000	\$ 19,389,000	\$ 37,436,342	\$ 31,148,000	\$ 20,802,000
Budget	184,257,050	178,939,900	175,123,600	175,874,300	156,189,400	\$ 30,000,000	\$ 22,000,000	\$ 22,000,000	\$ 20,000,000	\$ 20,000,000	
	Projection beyond study period										
	2028	2029	2030	2031							
Liquidated Encumbrance Ratio	14.20%	14.20%	14.20%	14.20%							
Projected Liquidated Encumbrance	29,598,920	30,423,606	31,274,584	32,152,722							

Liquidated Encumbrance Water/Sewer Allocation										Assumptions - 34
Use	Averages Growth			Allocation of Class 200 & 300						
	1 Year	3 Year	5 Year	2017	2018	2019	2020	2021	2022	
Direct Costs - Class 200 & 300										
Water	33.70%	33.51%	32.99%	32.99%	33.51%	33.08%	32.41%	32.51%	32.48%	32.44%
Sewer	66.30%	66.49%	67.01%	67.01%	66.49%	66.92%	67.59%	67.49%	67.52%	67.56%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Liquidated Encumbrance Water/Sewer Allocation	Projected Class 200 & 300							Assumptions - 34
	2017	2018	2019	2020	2021	2022	2023	
Direct Costs - Class 200 & 300								
Water	\$ 61,290,332	\$ 59,115,694	\$ 61,153,394	\$ 62,738,345	\$ 64,145,196	\$ 65,592,915	\$ 67,082,801	
Sewer	121,625,172	119,611,315	127,508,373	130,237,606	133,354,916	136,574,185	139,898,818	
Total	\$ 182,915,504	\$ 178,727,009	\$ 188,661,767	\$ 192,975,951	\$ 197,500,112	\$ 202,167,100	\$ 206,981,619	

Rate Stabilization Fund Balance Allocation b/w W & WW **Assumptions - 35**

Water	40%
Wastewater	60%

Revenue/Operating Fund Balance Allocation b/w W & WW **Assumptions - 36**

Water	40%
Wastewater	60%

CIP Inflation **Assumptions - 37**

Low	0.0%
Medium	2.5%
High	2.5%
Base Year	2018

Transfer to General Fund Adjustment								Assumptions - 38
Description	Water	2017	2018	2019	2020	2021	2022	2023
Additional Transfer								
xxxxxx	0%	-	-	-	-	-	-	-
xxxxxx	0%	-	-	-	-	-	-	-
xxxxxx	0%	-	-	-	-	-	-	-
Total		-	-	-	-	-	-	-
Water Allocation								
xxxxxx		-	-	-	-	-	-	-
xxxxxx		-	-	-	-	-	-	-
xxxxxx		-	-	-	-	-	-	-
Total		-	-	-	-	-	-	-
Wastewater Allocation								
xxxxxx		-	-	-	-	-	-	-
xxxxxx		-	-	-	-	-	-	-
xxxxxx		-	-	-	-	-	-	-
Total		-	-	-	-	-	-	-

NOTE: CURRENTLY NOT IN USE

Stormwater IA GA Projections **Assumptions - 39**

Factor	1000					
Average IA Per Parcel	Residential	Use	Non Residential	Use	Condominium	Use
	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)
Non-Discount						
Water & Sewer	1,050	1.050	15,704.00	15.704	11,364.00	11.364
SW Only	1,050	1.050	2,494.00	2.494	5,847.00	5.847
Discount: Elderly, Education & Charities						
Water & Sewer	1,050	1.050	47,573.00	47.573	19,099.00	19.099
SW Only	1,050	1.050	11,008.00	11.008	20,647.00	20.647
Discount PHA						
Water & Sewer	1,050	1.050	32,081.00	32.081	6,158.00	6.158
SW Only	1,050	1.050	1,041.00	1.041	-	0.000
xxxxxxx						
Water & Sewer		0.000		0.000		0.000
SW Only		0.000		0.000		0.000
Average GA Per Parcel	Residential	Use	Non Residential	Use	Condominium	Use
	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)
Non-Discount						
Water & Sewer	2,110	2.110	28,494.00	28.494	16,416.00	16.416
SW Only	2,110	2.110	8,468.00	8.468	12,106.00	12.106
Discount: Elderly, Education & Charities						
Water & Sewer	2,110	2.110	90,550.00	90.550	40,388.00	40.388
SW Only	2,110	2.110	18,825.00	18.825	24,687.00	24.687
Discount PHA						
Water & Sewer	2,110	2.110	62,807.00	62.807	9,358.00	9.358
SW Only	2,110	2.110	4,061.00	4.061	-	0.000
xxxxxxx						
Water & Sewer		0.000		0.000		0.000
SW Only		0.000		0.000		0.000

2 year average (FY 2016 and FY 2017) area calculated for projections

Stormwater Deductions Projections Assumptions - 40

Factor 1,000

IA and GA For Use (1,000 Sq Ft)						
Total credits	2018	2019	2020	2021	2022	2023
Parcels	1,124	1,211	1,289	1,366	1,443	1,520
Impervious Area	101,660	108,341	115,722	124,674	133,977	143,339
Gross Area	334,052	352,820	372,242	393,188	414,438	435,688

Credit Projections -Source UOS Book & Credit Projections Book					
2018	2019	2020	2021	2022	2023
1,124	1,211	1,289	1,366	1,443	1,520
101,660,465	108,341,119	115,721,711	124,673,788	133,977,091	143,339,001
334,052,102	352,820,378	372,241,706	393,187,634	414,437,901	435,688,168
2018	2019	2020	2021	2022	2023

Stormwater Deductions Projections Assumptions - 40

Choose Credit Allocation		Use-Percent Allocation for projection of Credits			Existing (0)-Percent Allocation for projection of Credits			Alternative (1)-Percent Allocation for projection of Credits								
0		Parcels	Impervious Area	Gross Area	Parcels	Impervious Area	Gross Area	Parcels	Impervious Area	Gross Area	Parcels	Impervious Area	Gross Area	Parcels	Impervious Area	Gross Area
Residential																
Non-Discount																
Water & Sewer		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount: Elderly, Education & Charities																
Water & Sewer		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount PHA																
Water & Sewer		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
xxxxxxx (NOT IN USE)																
Water & Sewer		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Non Residential																
Non-Discount																
Water & Sewer		55.2%	76.4%	63.7%	55.22%	76.36%	63.72%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		25.0%	14.3%	24.3%	25.00%	14.32%	24.28%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount: Elderly, Education & Charities																
Water & Sewer		15.8%	6.0%	10.1%	15.75%	6.04%	10.07%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		1.0%	0.2%	0.2%	0.98%	0.18%	0.16%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount PHA																
Water & Sewer		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
xxxxxxx (NOT IN USE)																
Water & Sewer		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Condominiums																
Non-Discount																
Water & Sewer		3.1%	2.8%	1.6%	3.05%	2.81%	1.61%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount: Elderly, Education & Charities																
Water & Sewer		0.0%	0.3%	0.2%	0.00%	0.29%	0.16%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount PHA																
Water & Sewer		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
xxxxxxx (NOT IN USE)																
Water & Sewer		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SW Only		0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Appeals																
	Use	Average	2017	2016	2015	2014	Projection	2018	2019	2020	2021	2022	2023			
Annual Impervious Area Loss Per Parcel (sf)	2,970	2,970	1,970	3,970	2,950	3,540	# of Appeals	-50.00	-50.00	-50.00	-50.00	-50.00	0.00			
Annual Gross Area Loss Per Parcel (sf)	3,255	3,255	(460)	40	6,470	910										

Stormwater Deductions Projections											Assumptions - 40	
Exemptions	Use	To Use	2017	2016	2015	2014	Projection	2018	2019	2020	2021	2022
xxxxxxx (NOT IN USE) NOT IN USE - INPUT ON CUSTOMER TAB												
Impervious Area Per Parcel (sf)	0.000	0					# of Parcels	0.00%	0.00%	0.00%	0.00%	0.00%
Gross Area Per Parcel (sf)	0.000	0										
xxxxxxx (NOT IN USE) NOT IN USE - INPUT ON CUSTOMER TAB												
Impervious Area Per Parcel (sf)	0.000	0					# of Parcels	0.00%	0.00%	0.00%	0.00%	0.00%
Gross Area Per Parcel (sf)	0.000	0										
xxxxxxx (NOT IN USE) NOT IN USE - INPUT ON CUSTOMER TAB												
Impervious Area Per Parcel (sf)	0.000	0										
Gross Area Per Parcel (sf)	0.000	0										
SMIP/GARP ALLOCATION												
Allocation of SMIP/GARP	Sanitary	Stormwater										
	40.00%	60.00%										

Constants **Assumptions - 41**

BILLING FREQUENCY

Senior Citizens	
5/8" Meter	12.00
> 5/8" Meter	12.00
General Service (Residential)	
5/8" Meter	12.00
> 5/8" Meter	12.00
General Service (Commercial)	
5/8" Meter	12.00
> 5/8" Meter	12.00
General Service (Industrial)	
5/8" Meter	12.00
> 5/8" Meter	12.00
General Service (Public Utilities)	
5/8" Meter	12.00
> 5/8" Meter	12.00
PHA	12.00
Charities & Schools	12.00
Hospital/University	12.00
Hand Bill	12.00
Scheduled	12.00
xxxxxxxxxx	12.00
xxxxxxxxxx	12.00
Fire Service	12.00
Public Fire (Hydrants)	12.00
Sewer Only	12.00
Groundwater	12.00

Available Historical O&M Cost Data

Assumptions - 42

2017

2016

2015

2014

2013

List of years provided for Drop Down Lists

FINPLAN17.XLS

CUSTOMER

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Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Accounts													Customer - 1
Senior Citizens													
5/8" Meter	Account - No Growth	19,153	19,230	19,518	20,188	21,384	21,384	21,384	21,384	21,384	21,384	21,384	21,384
> 5/8" Meter	Account - No Growth	4	5	5	4	5	5	5	5	5	5	5	5
Total Senior Citizens		19,157	19,235	19,523	20,192	21,389	21,389	21,389	21,389	21,389	21,389	21,389	21,389
General Service (Residential)													
5/8" Meter	Account - No Growth	424,599	410,750	410,553	403,992	410,847	410,847	410,847	410,847	410,847	410,847	410,847	410,847
> 5/8" Meter	Account - No Growth	3,463	3,587	4,263	4,827	5,524	5,524	5,524	5,524	5,524	5,524	5,524	5,524
Total General Service (Residential)		428,062	414,337	414,816	408,819	416,371	416,371	416,371	416,371	416,371	416,371	416,371	416,371
General Service (Commercial)													
5/8" Meter	Account - No Growth	27,921	27,634	28,205	28,118	28,151	28,151	28,151	28,151	28,151	28,151	28,151	28,151
> 5/8" Meter	Account - No Growth	6,750	6,687	7,122	7,374	7,476	7,476	7,476	7,476	7,476	7,476	7,476	7,476
Total General Service (Commercial)		34,671	34,321	35,327	35,492	35,627	35,627	35,627	35,627	35,627	35,627	35,627	35,627
General Service (Industrial)													
5/8" Meter	Account - No Growth	547	537	537	530	528	528	528	528	528	528	528	528
> 5/8" Meter	Account - No Growth	556	509	551	550	546	546	546	546	546	546	546	546
Total General Service (Industrial)		1,103	1,046	1,088	1,080	1,074	1,074	1,074	1,074	1,074	1,074	1,074	1,074
General Service (Public Utilities)													
5/8" Meter	Account - No Growth	34	34	37	44	48	48	48	48	48	48	48	48
> 5/8" Meter	Account - No Growth	64	74	82	83	90	90	90	90	90	90	90	90
Total General Service (Public Utilities)		98	108	119	127	138	138	138	138	138	138	138	138
General Service (Excluding Senior Citizens)													
5/8" Meter		453,101	438,955	439,332	432,684	439,574	439,574	439,574	439,574	439,574	439,574	439,574	439,574
> 5/8" Meter		10,833	10,857	12,018	12,834	13,636	13,636	13,636	13,636	13,636	13,636	13,636	13,636
Total General Service (excluding SC)		463,934	449,812	451,350	445,518	453,210	453,210	453,210	453,210	453,210	453,210	453,210	453,210
General Service (Including Senior Citizens)													
5/8" Meter		472,254	458,185	458,850	452,872	460,958	460,958	460,958	460,958	460,958	460,958	460,958	460,958
> 5/8" Meter		10,837	10,862	12,023	12,838	13,641	13,641	13,641	13,641	13,641	13,641	13,641	13,641
Total General Service (including SC)		483,091	469,047	470,873	465,710	474,599	474,599	474,599	474,599	474,599	474,599	474,599	474,599
PHA	Account - No Growth	6,164	6,023	5,981	5,896	5,731	5,731	5,731	5,731	5,731	5,731	5,731	5,731
Charity and Schools	Account - No Growth	2,743	2,701	2,731	2,607	2,523	2,523	2,523	2,523	2,523	2,523	2,523	2,523
Hospital/University	Account - No Growth	397	409	427	502	493	493	493	493	493	493	493	493
Hand Bill	Account - No Growth	287	264	272	270	264	264	264	264	264	264	264	264
Scheduled	Account - No Growth	2	2	2	2	3	3	3	3	3	3	3	3
xxxxxxxxxx	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Fire Service	Account - No Growth	3,486	3,306	3,511	4,104	3,797	3,797	3,797	3,797	3,797	3,797	3,797	3,797
Fire Hydrants	Account - No Growth	25,353	25,321	25,364	25,364	25,364	25,364	25,364	25,364	25,364	25,364	25,364	25,364
Total		521,523	507,073	509,161	504,455	512,774	512,774	512,774	512,774	512,774	512,774	512,774	512,774
Fire Service (Unmetered)	Account - No Growth	5,424	5,431	5,889	6,498	7,122	7,122	7,122	7,122	7,122	7,122	7,122	7,122

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Customer Account Growth													Customer - 1A
Annual Growth													
Senior Citizens													
5/8" Meter		1.89%	0.40%	1.50%	3.43%	5.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		100.00%	25.00%	0.00%	-20.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		1.90%	0.41%	1.50%	3.43%	5.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	-3.26%	-0.05%	-1.60%	1.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	3.58%	18.85%	13.23%	14.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	-3.21%	0.12%	-1.45%	1.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	-1.03%	2.07%	-0.31%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	-0.93%	6.51%	3.54%	1.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	-1.01%	2.93%	0.47%	0.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	-1.83%	0.00%	-1.30%	-0.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	-8.45%	8.25%	-0.18%	-0.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	-5.17%	4.02%	-0.74%	-0.56%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	0.00%	8.82%	18.92%	9.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	15.63%	10.81%	1.22%	8.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	10.20%	10.19%	6.72%	8.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		3.43%	-3.12%	0.09%	-1.51%	1.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		5.34%	0.22%	10.69%	6.79%	6.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		3.48%	-3.04%	0.34%	-1.29%	1.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		3.37%	-2.98%	0.15%	-1.30%	1.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		5.36%	0.23%	10.69%	6.78%	6.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		3.41%	-2.91%	0.39%	-1.10%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		0.85%	-2.29%	-0.70%	-1.42%	-2.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-12.14%	-1.53%	1.11%	-4.54%	-3.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	3.02%	4.40%	17.56%	-1.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	-8.01%	3.03%	-0.74%	-2.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		-17.78%	-5.16%	6.20%	16.89%	-7.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		0.11%	-0.13%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total		#N/A	-2.77%	0.41%	-0.92%	1.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Service (Unmetered)		29.89%	0.13%	8.43%	10.34%	9.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Customer Account Growth													Customer - 1A
2-Year Average Growth													
Senior Citizens													
5/8" Meter		1.63%	1.15%	0.95%	2.46%	4.67%	2.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		41.42%	58.11%	11.80%	-10.56%	0.00%	11.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		1.63%	1.15%	0.95%	2.46%	4.67%	2.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	-1.67%	-0.83%	0.04%	0.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	10.95%	16.00%	13.83%	6.98%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	-1.56%	-0.67%	0.19%	0.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	0.51%	0.87%	-0.10%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	2.72%	5.01%	2.46%	0.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	0.94%	1.69%	0.42%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	-0.92%	-0.65%	-0.84%	-0.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	-0.45%	3.95%	-0.45%	-0.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	-0.68%	1.61%	-0.65%	-0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	4.32%	13.76%	13.90%	4.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	13.19%	5.91%	4.76%	4.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	10.19%	8.44%	7.69%	4.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		1.98%	0.10%	-1.53%	-0.72%	0.03%	0.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		2.73%	2.75%	5.33%	8.72%	6.52%	3.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		2.00%	0.16%	-1.37%	-0.48%	0.21%	0.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		1.97%	0.15%	-1.43%	-0.58%	0.23%	0.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		2.74%	2.76%	5.33%	8.72%	6.52%	3.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		1.98%	0.20%	-1.27%	-0.36%	0.39%	0.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		0.53%	-0.73%	-1.50%	-1.06%	-2.11%	-1.41%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-6.89%	-6.99%	-0.22%	-1.76%	-3.88%	-1.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	3.71%	10.79%	7.45%	-0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	-2.65%	1.13%	-1.48%	-1.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	0.00%	0.00%	22.47%	22.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		-7.64%	-11.70%	0.36%	11.42%	3.99%	-3.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		0.29%	-0.01%	0.02%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total		#N/A	#N/A	-1.19%	-0.26%	0.35%	0.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Service (Unmetered)		17.43%	14.04%	4.20%	9.38%	9.97%	4.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Customer Account Growth													Customer - 1A
3-Year Average Growth													
Senior Citizens													
5/8" Meter		1.50%	1.22%	1.26%	1.77%	3.60%	3.09%	1.94%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	7.72%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		#N/A	#N/A	#N/A	1.77%	3.60%	3.09%	1.94%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	-1.64%	0.01%	0.02%	0.56%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	11.71%	15.48%	9.02%	4.60%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	-1.52%	0.16%	0.12%	0.61%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	0.23%	0.62%	-0.06%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	2.99%	3.79%	1.63%	0.46%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	0.78%	1.25%	0.28%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	-1.05%	-0.56%	-0.56%	-0.13%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	-0.36%	2.37%	-0.30%	-0.24%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	-0.70%	0.88%	-0.43%	-0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	8.97%	12.18%	9.06%	2.94%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	9.05%	6.74%	3.15%	2.74%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	9.02%	8.51%	5.06%	2.81%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		#N/A	0.25%	0.10%	-1.53%	0.05%	0.02%	0.53%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	5.81%	7.89%	4.30%	2.04%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		#N/A	#N/A	#N/A	-1.34%	0.25%	0.14%	0.57%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		1.53%	0.29%	0.15%	-1.39%	0.20%	0.15%	0.59%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	5.81%	7.89%	4.30%	2.04%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		#N/A	#N/A	#N/A	-1.21%	0.39%	0.26%	0.63%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		0.22%	-0.42%	-0.72%	-1.47%	-1.64%	-1.41%	-0.94%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-4.84%	-5.14%	-4.36%	-1.68%	-2.25%	-2.61%	-1.09%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	8.14%	6.42%	4.91%	-0.60%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	-2.01%	0.00%	-0.99%	-0.75%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	0.00%	14.47%	14.47%	14.47%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	-6.82%	-6.10%	5.59%	4.72%	2.64%	-2.56%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	0.15%	0.05%	0.01%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total		#N/A	#N/A	#N/A	-1.10%	0.37%	0.24%	0.55%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Service (Unmetered)		8.83%	11.35%	12.14%	6.21%	9.46%	6.54%	3.10%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Customer Account Growth													Customer - 1A
5-Year Average Growth													
Senior Citizens													
5/8" Meter		0.55%	1.49%	1.28%	1.71%	2.61%	2.23%	2.15%	1.84%	1.16%	0.00%	0.00%	0.00%
> 5/8" Meter		5.92%	20.11%	20.11%	#N/A	#N/A	4.56%	0.00%	0.00%	4.56%	0.00%	0.00%	0.00%
Total Senior Citizens		#N/A	1.49%	1.28%	1.71%	2.62%	2.23%	2.15%	1.84%	1.16%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.66%	0.00%	0.01%	0.34%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	9.79%	9.02%	5.32%	2.73%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	#N/A	#N/A	-0.55%	0.10%	0.07%	0.37%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	0.16%	0.37%	-0.04%	0.02%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	2.06%	2.26%	0.97%	0.28%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	#N/A	#N/A	0.55%	0.75%	0.17%	0.08%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.70%	-0.34%	-0.34%	-0.08%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.36%	1.41%	-0.18%	-0.15%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	#N/A	#N/A	-0.53%	0.53%	-0.26%	-0.11%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	7.14%	7.14%	5.34%	1.76%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	7.06%	3.99%	1.88%	1.63%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	#N/A	#N/A	7.09%	5.02%	3.01%	1.68%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.60%	0.03%	0.01%	0.32%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	4.71%	4.66%	2.56%	1.22%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		#N/A	#N/A	#N/A	-0.02%	0.22%	-0.47%	0.15%	0.08%	0.34%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.48%	0.12%	0.09%	0.35%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	4.71%	4.66%	2.56%	1.22%	0.00%	0.00%	0.00%
Total General Service (including SC)		#N/A	0.39%	0.40%	0.05%	0.32%	-0.35%	0.24%	0.16%	0.38%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	#N/A	#N/A	#N/A	-1.45%	-0.99%	-0.85%	-0.57%	0.00%	0.00%	0.00%
Charity and Schools		#N/A	#N/A	#N/A	#N/A	#N/A	-1.66%	-1.35%	-1.57%	-0.65%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	#N/A	#N/A	4.43%	3.81%	2.92%	-0.36%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	#N/A	#N/A	-1.66%	0.00%	-0.60%	-0.45%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	8.45%	8.45%	8.45%	8.45%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	#N/A	#N/A	#N/A	1.72%	2.81%	1.58%	-1.54%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	0.01%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Total		#N/A	#N/A	#N/A	#N/A	#N/A	-0.34%	0.22%	0.14%	0.33%	0.00%	0.00%	0.00%
Fire Service (Unmetered)		#N/A	#N/A	#N/A	10.56%	#N/A	5.60%	5.57%	3.88%	1.85%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						Customer - 2
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Water Only													
Accounts													
Senior Citizens													
5/8" Meter	Account - No Growth	9	13	17	17	19	19	19	19	19	19	19	19
> 5/8" Meter	Account - No Growth	1	1	1	1	2	2	2	2	2	2	2	2
Total Senior Citizens		10	14	18	18	21	21	21	21	21	21	21	21
General Service (Residential)													
5/8" Meter	Account - No Growth	805	1,039	1,267	1,259	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262
> 5/8" Meter	Account - No Growth	590	713	797	893	803	803	803	803	803	803	803	803
Total General Service (Residential)		1,395	1,752	2,064	2,152	2,065	2,065	2,065	2,065	2,065	2,065	2,065	2,065
General Service (Commercial)													
5/8" Meter	Account - No Growth	73	92	103	105	105	105	105	105	105	105	105	105
> 5/8" Meter	Account - No Growth	509	553	598	682	621	621	621	621	621	621	621	621
Total General Service (Commercial)		582	645	701	787	726	726	726	726	726	726	726	726
General Service (Industrial)													
5/8" Meter	Account - No Growth	2	3	3	3	4	4	4	4	4	4	4	4
> 5/8" Meter	Account - No Growth	31	36	38	40	38	38	38	38	38	38	38	38
Total General Service (Industrial)		33	39	41	43	42	42	42	42	42	42	42	42
General Service (Public Utilities)													
5/8" Meter	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
> 5/8" Meter	Account - No Growth	2	3	3	3	3	3	3	3	3	3	3	3
Total General Service (Public Utilities)		2	3	3	3	3	3	3	3	3	3	3	3
General Service (Excluding Senior Citizens)													
5/8" Meter		880	1,134	1,373	1,367	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371
> 5/8" Meter		1,132	1,305	1,436	1,618	1,465	1,465	1,465	1,465	1,465	1,465	1,465	1,465
Total General Service (excluding SC)		2,012	2,439	2,809	2,985	2,836	2,836	2,836	2,836	2,836	2,836	2,836	2,836
General Service (Including Senior Citizens)													
5/8" Meter		889	1,147	1,390	1,384	1,390	1,390	1,390	1,390	1,390	1,390	1,390	1,390
> 5/8" Meter		1,133	1,306	1,437	1,619	1,467	1,467	1,467	1,467	1,467	1,467	1,467	1,467
Total General Service (including SC)		2,022	2,453	2,827	3,003	2,857	2,857	2,857	2,857	2,857	2,857	2,857	2,857

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
PHA	Account - No Growth	99	119	124	135	112	112	112	112	112	112	112	112
Charities & Schools	Account - No Growth	108	108	125	107	99	99	99	99	99	99	99	99
Hospital/University	Account - No Growth	46	44	52	71	67	67	67	67	67	67	67	67
Hand Bill	Account - No Growth	16	16	18	23	22	22	22	22	22	22	22	22
Scheduled	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Fire Service	Account - No Growth	3,397	3,221	3,430	4,030	3,720	3,720	3,720	3,720	3,720	3,720	3,720	3,720
Fire Hydrants	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Total		5,688	5,961	6,576	7,369	6,877	6,877	6,877	6,877	6,877	6,877	6,877	6,877
Billed Volume (Mcf)													
Senior Citizens													
5/8" Meter	Volume - No Growth	54	68	83	71	88	88	88	88	88	88	88	88
> 5/8" Meter	Volume - No Growth	-	-	-	-	6	6	6	6	6	6	6	6
Total Senior Citizens		54	68	83	71	94	94	94	94	94	94	94	94
General Service (Residential)													
5/8" Meter	Volume - No Growth	6,441	8,952	10,177	10,747	10,686	10,686	10,686	10,686	10,686	10,686	10,686	10,686
> 5/8" Meter	Volume - No Growth	1,552	3,461	2,959	3,320	3,153	3,153	3,153	3,153	3,153	3,153	3,153	3,153
Total General Service (Residential)		7,993	12,413	13,136	14,067	13,839	13,839	13,839	13,839	13,839	13,839	13,839	13,839
General Service (Commercial)													
5/8" Meter	Volume - No Growth	1,214	1,674	1,532	1,741	1,809	1,809	1,809	1,809	1,809	1,809	1,809	1,809
> 5/8" Meter	Volume - No Growth	14,910	19,790	22,847	34,108	32,692	32,692	32,692	32,692	32,692	32,692	32,692	32,692
Total General Service (Commercial)		16,124	21,464	24,380	35,849	34,500	34,500	34,500	34,500	34,500	34,500	34,500	34,500
General Service (Industrial)													
5/8" Meter	Volume - No Growth	20	28	48	35	43	43	43	43	43	43	43	43
> 5/8" Meter	Volume - No Growth	16,690	8,548	11,701	5,893	6,441	6,441	6,441	6,441	6,441	6,441	6,441	6,441
Total General Service (Industrial)		16,710	8,576	11,749	5,927	6,484	6,484	6,484	6,484	6,484	6,484	6,484	6,484
General Service (Public Utilities)													
5/8" Meter	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
> 5/8" Meter	Volume - No Growth	1	1	1	1	1	1	1	1	1	1	1	1
Total General Service (Public Utilities)		1	1	1	1	1	1	1	1	1	1	1	1
General Service (Excluding Senior Citizens)													
5/8" Meter		7,675	10,654	11,757	12,523	12,538	12,538	12,538	12,538	12,538	12,538	12,538	12,538
> 5/8" Meter		33,153	31,800	37,508	43,322	42,287	42,287	42,287	42,287	42,287	42,287	42,287	42,287
Total General Service (excluding SC)		40,828	42,454	49,266	55,844	54,824	54,824	54,824	54,824	54,824	54,824	54,824	54,824
General Service (Including Senior Citizens)													
5/8" Meter		7,729	10,722	11,840	12,594	12,625	12,625	12,625	12,625	12,625	12,625	12,625	12,625
> 5/8" Meter		33,153	31,800	37,508	43,322	42,293	42,293	42,293	42,293	42,293	42,293	42,293	42,293
Total General Service (including SC)		40,882	42,522	49,348	55,916	54,919	54,919	54,919	54,919	54,919	54,919	54,919	54,919

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
PHA	Volume - No Growth	-	12	23	34	45	45	45	45	45	45	45	45
Charities & Schools	Volume - No Growth	695	929	6,057	1,291	988	988	988	988	988	988	988	988
Hospital/University	Volume - No Growth	69	60	51	42	38	38	38	38	38	38	38	38
Hand Bill	Volume - No Growth	28,205	39,032	37,723	76,304	127,689	127,689	127,689	127,689	127,689	127,689	127,689	127,689
Scheduled	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Fire Service	Volume - No Growth	5,407	6,123	6,286	8,904	8,588	8,588	8,588	8,588	8,588	8,588	8,588	8,588
Fire Hydrants	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Total		75,258	88,679	99,489	142,491	192,267	192,267	192,267	192,267	192,267	192,267	192,267	192,267

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Only Customer Account Growth													Customer - 2A
Annual Growth													
Senior Citizens													
5/8" Meter		-25.00%	44.44%	30.77%	0.00%	11.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-16.67%	40.00%	28.57%	0.00%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	29.07%	21.94%	-0.63%	0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	20.85%	11.78%	12.05%	-10.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	25.59%	17.81%	4.26%	-4.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	26.03%	11.96%	1.94%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	8.64%	8.14%	14.05%	-8.94%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	10.82%	8.68%	12.27%	-7.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	50.00%	0.00%	0.00%	33.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	16.13%	5.56%	5.26%	-5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	18.18%	5.13%	4.88%	-2.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-29.15%	28.86%	21.08%	-0.44%	0.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		362.04%	15.28%	10.04%	12.67%	-9.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		35.31%	21.22%	15.17%	6.27%	-4.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-29.11%	29.02%	21.19%	-0.43%	0.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		362.45%	15.27%	10.03%	12.67%	-9.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		34.89%	21.32%	15.25%	6.23%	-4.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		#N/A	20.20%	4.20%	8.87%	-17.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		208.57%	0.00%	15.74%	-14.40%	-7.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	-4.35%	18.18%	36.54%	-5.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	0.00%	12.50%	27.78%	-4.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	-5.18%	6.49%	17.49%	-7.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	4.80%	10.32%	12.06%	-6.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2-Year Average Growth													
Senior Citizens													
5/8" Meter		-16.53%	4.08%	37.44%	14.35%	5.72%	5.72%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	0.00%	0.00%	41.42%	41.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-12.01%	8.01%	34.16%	13.39%	8.01%	8.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	25.46%	10.08%	-0.20%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	16.23%	11.91%	0.38%	-5.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	21.64%	10.83%	0.02%	-2.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	18.78%	6.83%	0.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	8.39%	11.05%	1.90%	-4.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	9.75%	10.46%	1.77%	-3.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	22.47%	0.00%	15.47%	15.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	10.72%	5.41%	0.00%	-2.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	11.46%	5.00%	1.21%	-1.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	#N/A	22.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	22.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-17.69%	-4.45%	24.91%	9.79%	-0.07%	0.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		111.53%	130.79%	12.63%	11.35%	1.00%	-4.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		13.86%	28.07%	18.16%	10.63%	0.48%	-2.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-17.68%	-4.36%	25.04%	9.85%	0.00%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		111.62%	130.88%	12.62%	11.34%	1.04%	-4.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		13.67%	27.92%	18.24%	10.64%	0.53%	-2.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	11.92%	6.51%	-4.96%	-8.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		65.01%	75.66%	7.58%	-0.46%	-11.01%	-3.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	6.32%	27.03%	13.51%	-2.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	6.07%	19.90%	10.55%	-2.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	0.48%	11.86%	4.14%	-3.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	7.52%	11.18%	2.26%	-3.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3-Year Average Growth													
Senior Citizens													
5/8" Meter		-15.66%	0.21%	12.31%	23.61%	13.48%	3.78%	3.78%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	0.00%	25.99%	25.99%	25.99%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-12.64%	2.72%	14.47%	21.64%	14.47%	5.27%	5.27%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	16.08%	6.70%	-0.13%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	14.82%	4.04%	0.25%	-3.48%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	15.55%	5.63%	0.02%	-1.37%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	12.88%	4.50%	0.64%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	10.24%	3.94%	1.27%	-3.08%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	10.58%	4.02%	1.17%	-2.65%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	14.47%	10.06%	10.06%	10.06%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	8.87%	1.82%	0.00%	-1.70%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	9.22%	2.50%	0.81%	-0.78%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	#N/A	#N/A	14.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	14.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-12.77%	-4.43%	3.40%	15.81%	6.53%	-0.05%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		58.18%	72.78%	80.30%	12.64%	3.93%	0.67%	-3.26%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		7.67%	16.26%	23.62%	14.05%	5.16%	0.32%	-1.69%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-12.81%	-4.38%	3.49%	15.90%	6.61%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		58.23%	72.83%	80.34%	12.63%	3.95%	0.69%	-3.23%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		7.51%	16.16%	23.55%	14.09%	5.21%	0.35%	-1.65%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	#N/A	10.89%	-2.00%	-3.34%	-6.04%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		34.89%	39.64%	52.86%	-0.31%	-2.86%	-7.48%	-2.56%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	15.57%	15.05%	8.82%	-1.91%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	12.86%	11.20%	6.92%	-1.47%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	#N/A	5.86%	4.92%	2.74%	-2.63%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	9.01%	4.88%	1.50%	-2.28%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
5-Year Average Growth													
Senior Citizens													
5/8" Meter		-13.34%	-6.73%	2.53%	5.65%	9.63%	16.12%	7.89%	2.25%	2.25%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	14.87%	14.87%	14.87%	14.87%	0.00%	0.00%	0.00%
Total Senior Citizens		-11.50%	-5.34%	3.71%	6.86%	11.84%	16.00%	8.45%	3.13%	3.13%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	9.41%	3.97%	-0.08%	0.05%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	6.36%	2.41%	0.15%	-2.10%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	#N/A	#N/A	8.16%	3.34%	0.01%	-0.82%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	7.54%	2.68%	0.39%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	4.06%	2.35%	0.76%	-1.86%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	#N/A	#N/A	4.52%	2.39%	0.70%	-1.60%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	14.87%	5.92%	5.92%	5.92%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	4.16%	1.09%	0.00%	-1.02%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	#N/A	#N/A	4.94%	1.49%	0.48%	-0.47%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	8.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	#N/A	#N/A	8.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-8.51%	-3.91%	0.70%	1.03%	2.00%	9.27%	3.87%	-0.03%	0.06%	0.00%	0.00%	0.00%
> 5/8" Meter		28.99%	33.57%	38.09%	44.93%	43.00%	5.29%	2.34%	0.40%	-1.97%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		3.55%	7.60%	11.75%	13.98%	13.78%	7.11%	3.06%	0.19%	-1.02%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-8.57%	-3.94%	0.72%	1.08%	2.08%	9.35%	3.92%	0.00%	0.09%	0.00%	0.00%	0.00%
> 5/8" Meter		29.01%	33.59%	38.11%	44.95%	43.04%	5.30%	2.35%	0.41%	-1.95%	0.00%	0.00%	0.00%
Total General Service (including SC)		3.43%	7.49%	11.68%	13.92%	13.77%	7.16%	3.10%	0.21%	-0.99%	0.00%	0.00%	0.00%
PHA		0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	-1.21%	-2.02%	-3.67%	0.00%	0.00%	0.00%
Charity and Schools		32.95%	32.95%	23.22%	21.95%	23.12%	-1.73%	-1.73%	-4.56%	-1.54%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	#N/A	#N/A	7.81%	8.77%	5.20%	-1.15%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	#N/A	#N/A	6.58%	6.58%	4.10%	-0.89%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	#N/A	#N/A	#N/A	1.83%	2.92%	1.64%	-1.59%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	#N/A	#N/A	3.87%	2.90%	0.90%	-1.37%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Only Billed Volume Growth													Customer - 2B
Annual Growth													
Senior Citizens													
5/8" Meter		-28.95%	25.93%	21.91%	-13.87%	22.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-28.95%	25.93%	21.91%	-13.87%	31.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	38.98%	13.68%	5.60%	-0.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	123.00%	-14.50%	12.20%	-5.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	55.30%	5.82%	7.09%	-1.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	37.89%	-8.47%	13.62%	3.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	32.73%	15.45%	49.29%	-4.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	33.12%	13.58%	47.05%	-3.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	40.00%	71.43%	-27.71%	23.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	-48.78%	36.89%	-49.64%	9.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	-48.68%	37.00%	-49.55%	9.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-40.05%	38.81%	10.36%	6.51%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-60.65%	-4.08%	17.95%	15.50%	-2.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-57.93%	3.98%	16.04%	13.35%	-1.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-39.99%	38.72%	10.43%	6.37%	0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-60.65%	-4.08%	17.95%	15.50%	-2.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-57.91%	4.01%	16.05%	13.31%	-1.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	88.62%	47.84%	31.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-77.72%	33.67%	551.99%	-78.68%	-23.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	-13.04%	-15.00%	-17.25%	-9.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	38.39%	-3.35%	102.27%	67.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	13.24%	2.66%	41.64%	-3.54%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		-24.93%	17.83%	12.19%	43.22%	34.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2-Year Average Growth													
Senior Citizens													
5/8" Meter		-18.05%	-5.41%	23.90%	2.47%	2.85%	10.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-18.05%	-5.41%	23.90%	2.47%	6.54%	14.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	25.70%	9.57%	2.47%	-0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	38.08%	-2.06%	3.23%	-2.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	28.20%	6.45%	2.64%	-0.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	12.34%	1.98%	8.65%	1.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	23.79%	31.28%	19.62%	-2.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	22.96%	29.24%	18.96%	-1.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	54.92%	11.32%	-5.35%	11.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	-16.27%	-16.97%	-25.81%	4.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	-16.15%	-16.86%	-25.71%	4.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-18.16%	-8.78%	23.77%	8.42%	3.27%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-29.77%	-38.57%	6.37%	16.72%	6.18%	-1.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-27.97%	-33.86%	9.85%	14.69%	5.49%	-0.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-18.16%	-8.76%	23.77%	8.38%	3.26%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-29.77%	-38.57%	6.37%	16.72%	6.19%	-1.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-27.96%	-33.84%	9.87%	14.67%	5.49%	-0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	#N/A	66.99%	39.27%	14.54%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-23.89%	-45.43%	195.21%	17.90%	-59.61%	-12.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	-14.03%	-16.14%	-13.68%	-5.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	15.65%	39.82%	83.98%	29.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	7.82%	20.58%	16.89%	-1.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		-2.99%	-5.95%	14.98%	26.76%	39.02%	16.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3-Year Average Growth													
Senior Citizens													
5/8" Meter		-20.13%	-5.43%	2.94%	9.76%	8.85%	1.89%	7.09%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-20.13%	-5.43%	2.94%	9.76%	11.44%	4.31%	9.64%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	18.61%	6.08%	1.64%	-0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	28.85%	-3.06%	2.14%	-1.71%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	20.73%	3.69%	1.75%	-0.54%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	12.77%	2.62%	5.69%	1.28%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	31.76%	18.21%	12.69%	-1.40%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	30.52%	17.14%	12.27%	-1.27%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	20.16%	15.37%	-3.60%	7.41%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	-29.32%	-9.00%	-18.04%	3.01%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	-29.21%	-8.90%	-17.97%	3.04%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-16.84%	-2.40%	-2.80%	17.73%	5.58%	2.17%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-29.54%	-22.08%	-23.64%	9.33%	9.97%	4.08%	-0.80%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-27.72%	-18.59%	-20.23%	11.00%	8.90%	3.63%	-0.61%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-16.87%	-2.42%	-2.76%	17.67%	5.60%	2.16%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-29.54%	-22.08%	-23.64%	9.33%	9.97%	4.08%	-0.80%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-27.71%	-18.57%	-20.21%	11.00%	8.90%	3.63%	-0.60%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	#N/A	#N/A	54.09%	24.71%	9.47%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-54.85%	-8.18%	24.75%	22.94%	2.07%	-45.36%	-8.54%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	-15.12%	-14.12%	-9.34%	-3.43%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	39.34%	48.45%	50.15%	18.72%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	#N/A	18.09%	11.94%	10.96%	-1.20%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		-13.37%	3.51%	-0.26%	23.71%	29.43%	24.56%	10.50%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
5-Year Average Growth													
Senior Citizens													
5/8" Meter		-16.62%	-48.66%	-4.80%	-2.35%	2.91%	10.18%	5.22%	1.13%	4.20%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.00%	0.00%
Total Senior Citizens		-16.62%	-48.66%	-4.80%	-2.35%	4.37%	11.75%	6.71%	2.57%	5.68%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	10.66%	3.60%	0.98%	-0.11%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	15.23%	-1.85%	1.28%	-1.03%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	#N/A	#N/A	11.60%	2.20%	1.05%	-0.33%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	8.30%	1.56%	3.37%	0.77%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	17.00%	10.56%	7.43%	-0.84%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	#N/A	#N/A	16.43%	9.96%	7.19%	-0.76%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	16.54%	8.96%	-2.18%	4.38%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-17.34%	-5.50%	-11.25%	1.80%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	#N/A	#N/A	-17.25%	-5.44%	-11.21%	1.81%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		-8.19%	-5.56%	-2.50%	1.79%	-0.42%	10.31%	3.31%	1.29%	0.02%	0.00%	0.00%	0.00%
> 5/8" Meter		-20.78%	-26.72%	-16.92%	-8.41%	-12.88%	4.99%	5.87%	2.43%	-0.48%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-19.13%	-23.75%	-14.55%	-6.63%	-10.80%	6.07%	5.25%	2.16%	-0.37%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		-8.27%	-7.80%	-2.52%	1.76%	-0.40%	10.31%	3.32%	1.29%	0.05%	0.00%	0.00%	0.00%
> 5/8" Meter		-20.78%	-26.72%	-16.92%	-8.41%	-12.88%	4.99%	5.87%	2.43%	-0.48%	0.00%	0.00%	0.00%
Total General Service (including SC)		-19.13%	-23.90%	-14.54%	-6.62%	-10.78%	6.08%	5.25%	2.16%	-0.36%	0.00%	0.00%	0.00%
PHA		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	29.62%	14.17%	5.58%	0.00%	0.00%	0.00%
Charity and Schools		-2.68%	-15.47%	-4.31%	1.48%	-20.55%	7.29%	1.24%	-30.42%	-5.21%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	#N/A	#N/A	-11.25%	-8.73%	-5.71%	-2.07%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	#N/A	#N/A	35.26%	26.75%	27.62%	10.85%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		#N/A	#N/A	#N/A	#N/A	#N/A	9.69%	7.00%	6.44%	-0.72%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		-8.75%	-12.08%	-2.99%	12.25%	13.91%	20.63%	16.74%	14.08%	6.18%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Billed Volume (Mcf)													Customer - 3
Senior Citizens													
5/8" Meter		106,297	110,057	109,915	115,925	117,758	119,750	117,612	115,474	113,549	111,624	109,700	107,775
> 5/8" Meter		56	73	48	28	31	33	33	33	33	33	33	33
Total Senior Citizens		106,353	110,129	109,963	115,954	117,789	119,783	117,645	115,507	113,582	111,657	109,733	107,808
General Service (Residential)													
5/8" Meter		3,034,519	3,021,077	2,901,905	2,864,109	2,794,005	2,875,929	2,826,627	2,777,326	2,728,024	2,678,722	2,633,529	2,588,336
> 5/8" Meter		387,069	379,139	366,322	356,604	352,830	381,156	381,156	381,156	381,156	381,156	381,156	381,156
Total General Service (Residential)		3,421,588	3,400,216	3,268,227	3,220,713	3,146,835	3,257,085	3,207,783	3,158,482	3,109,180	3,059,878	3,014,685	2,969,492
General Service (Commercial)													
5/8" Meter		319,424	323,744	319,577	329,723	318,358	323,737	318,106	312,476	307,127	301,779	296,430	291,363
> 5/8" Meter		1,137,773	1,158,232	1,132,777	1,218,360	1,215,869	1,218,588	1,218,588	1,218,588	1,218,588	1,218,588	1,218,588	1,218,588
Total General Service (Commercial)		1,457,197	1,481,977	1,452,354	1,548,083	1,534,227	1,542,325	1,536,694	1,531,064	1,525,715	1,520,367	1,515,018	1,509,951
General Service (Industrial)													
5/8" Meter		5,814	5,761	5,758	6,221	5,908	5,914	5,808	5,708	5,607	5,507	5,412	5,317
> 5/8" Meter		100,862	85,902	90,318	84,463	91,021	87,360	87,360	87,360	87,360	87,360	87,360	87,360
Total General Service (Industrial)		106,676	91,663	96,076	90,683	96,929	93,274	93,168	93,068	92,967	92,867	92,772	92,677
General Service (Public Utilities)													
5/8" Meter		417	462	424	394	476	480	472	464	456	447	440	432
> 5/8" Meter		6,433	8,472	8,085	10,318	10,508	10,350	10,350	10,350	10,350	10,350	10,350	10,350
Total General Service (Public Utilities)		6,850	8,934	8,508	10,712	10,984	10,830	10,822	10,814	10,806	10,797	10,790	10,782
General Service (Excluding Senior Citizens)													
5/8" Meter		3,360,174	3,351,045	3,227,663	3,200,447	3,118,747	3,206,059	3,151,014	3,095,973	3,041,214	2,986,456	2,935,811	2,885,448
> 5/8" Meter		1,632,136	1,631,745	1,597,502	1,669,745	1,670,228	1,697,454	1,697,454	1,697,454	1,697,454	1,697,454	1,697,454	1,697,454
Total General Service (excluding SC)		4,992,310	4,982,790	4,825,166	4,870,192	4,788,975	4,903,513	4,848,468	4,793,427	4,738,668	4,683,910	4,633,265	4,582,902
General Service (Including Senior Citizens)													
5/8" Meter		3,466,471	3,461,102	3,337,578	3,316,372	3,236,505	3,325,810	3,268,626	3,211,447	3,154,763	3,098,080	3,045,511	2,993,223
> 5/8" Meter		1,632,192	1,631,818	1,597,550	1,669,773	1,670,259	1,697,487	1,697,487	1,697,487	1,697,487	1,697,487	1,697,487	1,697,487
Total General Service (including SC)		5,098,663	5,092,919	4,935,129	4,986,145	4,906,764	5,023,297	4,966,113	4,908,934	4,852,250	4,795,567	4,742,998	4,690,710
PHA		176,852	166,971	165,984	178,327	163,222	166,199	166,199	166,199	166,199	166,199	166,199	166,199
Charities & Schools		215,860	216,268	217,250	192,057	179,950	189,225	189,225	189,225	189,225	189,225	189,225	189,225
Hospital/University		270,914	261,941	262,373	272,764	300,850	290,870	290,870	290,870	290,870	290,870	290,870	290,870
Hand Bill		571,226	566,551	562,496	573,950	573,219	554,400	554,400	554,400	554,400	554,400	554,400	554,400
Scheduled		12	16	22	21	16	24	24	24	24	24	24	24
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		16,208	15,986	9,277	11,569	14,981	11,391	11,391	11,391	11,391	11,391	11,391	11,391
Fire Hydrants		-	-	-	-	-	-	-	-	-	-	-	-
Total		6,349,734	6,320,652	6,152,531	6,214,832	6,139,002	6,235,406	6,178,222	6,121,043	6,064,359	6,007,676	5,955,107	5,902,819
Annual Change		-2.60%	-0.46%	-2.66%	1.01%	-1.22%	1.57%	-0.92%	-0.93%	-0.93%	-0.93%	-0.88%	-0.88%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Billed Volume Per Account (Mcf/Account)													Customer - 4
Senior Citizens													
5/8" Meter	Volume - Small Decrease	5.55	5.72	5.63	5.74	5.51	5.60	5.50	5.40	5.31	5.22	5.13	5.04
> 5/8" Meter	Volume - No Growth	14.05	14.50	9.60	7.05	6.20	6.60	6.60	6.60	6.60	6.60	6.60	6.60
Total Senior Citizens		5.55	5.73	5.63	5.74	5.51	5.60	5.50	5.40	5.31	5.22	5.13	5.04
General Service (Residential)													
5/8" Meter	Volume - Small Decrease	7.15	7.36	7.07	7.09	6.80	7.00	6.88	6.76	6.64	6.52	6.41	6.30
> 5/8" Meter	Volume - No Growth with	111.77	105.70	85.93	73.88	63.87	69.00	69.00	69.00	69.00	69.00	69.00	69.00
Total General Service (Residential)		7.99	8.21	7.88	7.88	7.56	7.82	7.70	7.59	7.47	7.35	7.24	7.13
General Service (Commercial)													
5/8" Meter	Volume - Small Decrease	11.44	11.72	11.33	11.73	11.31	11.50	11.30	11.10	10.91	10.72	10.53	10.35
> 5/8" Meter	Volume - No Growth with	168.56	173.21	159.05	165.22	162.64	163.00	163.00	163.00	163.00	163.00	163.00	163.00
Total General Service (Commercial)		42.03	43.18	41.11	43.62	43.06	43.29	43.13	42.97	42.82	42.67	42.52	42.38
General Service (Industrial)													
5/8" Meter	Volume - Small Decrease	10.63	10.73	10.72	11.74	11.19	11.20	11.00	10.81	10.62	10.43	10.25	10.07
> 5/8" Meter	Volume - No Growth with	181.41	168.77	163.92	153.57	166.71	160.00	160.00	160.00	160.00	160.00	160.00	160.00
Total General Service (Industrial)		96.71	87.63	88.31	83.97	90.25	86.85	86.75	86.66	86.56	86.47	86.38	86.29
General Service (Public Utilities)													
5/8" Meter	Volume - Small Decrease	12.26	13.60	11.45	8.96	9.92	10.00	9.83	9.66	9.49	9.32	9.16	9.00
> 5/8" Meter	Volume - No Growth	100.51	114.49	98.59	124.31	116.76	115.00	115.00	115.00	115.00	115.00	115.00	115.00
Total General Service (Public Utilities)		69.89	82.73	71.50	84.35	79.59	78.48	78.42	78.36	78.30	78.24	78.19	78.13
General Service (Excluding Senior Citizens)													
5/8" Meter		7.42	7.63	7.35	7.40	7.09	7.29	7.17	7.04	6.92	6.79	6.68	6.56
> 5/8" Meter		150.66	150.29	132.93	130.10	122.49	124.48	124.48	124.48	124.48	124.48	124.48	124.48
Total General Service (excluding SC)		10.76	11.08	10.69	10.93	10.57	10.82	10.70	10.58	10.46	10.33	10.22	10.11
General Service (Including Senior Citizens)													
5/8" Meter		7.34	7.55	7.27	7.32	7.02	7.21	7.09	6.97	6.84	6.72	6.61	6.49
> 5/8" Meter		150.61	150.23	132.87	130.06	122.44	124.44	124.44	124.44	124.44	124.44	124.44	124.44
Total General Service (including SC)		10.55	10.86	10.48	10.71	10.34	10.58	10.46	10.34	10.22	10.10	9.99	9.88
PHA	Volume - No Growth	28.69	27.72	27.75	30.25	28.48	29.00	29.00	29.00	29.00	29.00	29.00	29.00
Charities & Schools	Volume - No Growth	78.69	80.07	79.55	73.67	71.32	75.00	75.00	75.00	75.00	75.00	75.00	75.00
Hospital/University	Volume - No Growth	682.40	640.44	614.46	543.35	610.24	590.00	590.00	590.00	590.00	590.00	590.00	590.00
Hand Bill	Volume - No Growth	1,990.33	2,146.03	2,068.00	2,125.74	2,171.28	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00
Scheduled	Volume - No Growth	5.75	7.80	11.00	10.35	5.33	8.00	8.00	8.00	8.00	8.00	8.00	8.00
xxxxxxxxxx	Volume - No Growth	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
xxxxxxxxxx	Volume - No Growth	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fire Service	Volume - No Growth	4.65	4.84	2.64	2.82	3.95	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Fire Hydrants	Volume - No Growth	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		12.18	12.46	12.08	12.32	11.97	12.16	12.05	11.94	11.83	11.72	11.61	11.51

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Billed Volume Per Account Growth													Customer - 4A
Annual Growth													
Senior Citizens													
5/8" Meter		-3.81%	3.12%	-1.60%	1.97%	-4.10%	1.69%	-1.79%	-1.82%	-1.67%	-1.69%	-1.72%	-1.75%
> 5/8" Meter		-12.19%	3.20%	-33.79%	-26.56%	-12.06%	6.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-3.81%	3.13%	-1.62%	1.95%	-4.10%	1.69%	-1.79%	-1.82%	-1.67%	-1.69%	-1.72%	-1.75%
General Service (Residential)													
5/8" Meter		#N/A	2.91%	-3.90%	0.30%	-4.08%	2.93%	-1.71%	-1.74%	-1.78%	-1.81%	-1.69%	-1.72%
> 5/8" Meter		#N/A	-5.43%	-18.70%	-14.03%	-13.54%	8.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	2.67%	-3.99%	-0.01%	-4.07%	3.50%	-1.51%	-1.54%	-1.56%	-1.59%	-1.48%	-1.50%
General Service (Commercial)													
5/8" Meter		#N/A	2.41%	-3.29%	3.49%	-3.56%	1.69%	-1.74%	-1.77%	-1.71%	-1.74%	-1.77%	-1.71%
> 5/8" Meter		#N/A	2.76%	-8.17%	3.88%	-1.57%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	2.74%	-4.79%	6.10%	-1.27%	0.53%	-0.37%	-0.37%	-0.35%	-0.35%	-0.35%	-0.33%
General Service (Industrial)													
5/8" Meter		#N/A	0.93%	-0.06%	9.46%	-4.66%	0.09%	-1.79%	-1.73%	-1.76%	-1.79%	-1.73%	-1.76%
> 5/8" Meter		#N/A	-6.97%	-2.87%	-6.31%	8.55%	-4.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	-9.39%	0.77%	-4.91%	7.48%	-3.77%	-0.11%	-0.11%	-0.11%	-0.11%	-0.10%	-0.10%
General Service (Public Utilities)													
5/8" Meter		#N/A	10.97%	-15.84%	-21.69%	10.63%	0.84%	-1.70%	-1.73%	-1.76%	-1.79%	-1.72%	-1.75%
> 5/8" Meter		#N/A	13.90%	-13.88%	26.09%	-6.08%	-1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	18.36%	-13.57%	17.98%	-5.64%	-1.40%	-0.08%	-0.08%	-0.08%	-0.08%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-6.78%	2.94%	-3.76%	0.68%	-4.08%	2.80%	-1.72%	-1.75%	-1.77%	-1.80%	-1.70%	-1.72%
> 5/8" Meter		-30.09%	-0.24%	-11.56%	-2.12%	-5.85%	1.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-15.41%	2.94%	-3.49%	2.25%	-3.34%	2.39%	-1.12%	-1.14%	-1.14%	-1.16%	-1.08%	-1.09%
General Service (Including Senior Citizens)													
5/8" Meter		-6.73%	2.86%	-3.71%	0.69%	-4.10%	2.71%	-1.66%	-1.69%	-1.87%	-1.75%	-1.64%	-1.82%
> 5/8" Meter		-30.10%	-0.25%	-11.56%	-2.11%	-5.86%	1.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-15.19%	2.88%	-3.47%	2.15%	-3.44%	2.37%	-1.14%	-1.15%	-1.15%	-1.17%	-1.10%	-1.10%
PHA		-6.21%	-3.38%	0.11%	8.99%	-5.84%	1.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-52.11%	1.75%	-0.65%	-7.39%	-3.18%	5.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	-6.15%	-4.06%	-11.57%	12.31%	-3.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	7.82%	-3.64%	2.79%	2.14%	-3.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	35.65%	41.03%	-5.91%	-48.47%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		203.92%	4.00%	-45.35%	6.68%	39.97%	-23.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	2.38%	-3.06%	1.95%	-2.82%	1.57%	-0.92%	-0.93%	-0.93%	-0.93%	-0.88%	-0.88%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2-Year Average Growth													
Senior Citizens													
5/8" Meter		-1.22%	-0.38%	0.73%	0.17%	-1.11%	-1.25%	-0.06%	-1.80%	-1.74%	-1.68%	-1.71%	-1.74%
> 5/8" Meter		-13.09%	-4.80%	-17.34%	-30.27%	-19.64%	-3.24%	3.18%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-1.22%	-0.37%	0.73%	0.15%	-1.12%	-1.25%	-0.06%	-1.80%	-1.74%	-1.68%	-1.71%	-1.74%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	-0.55%	-1.82%	-1.91%	-0.63%	0.58%	-1.73%	-1.76%	-1.79%	-1.75%	-1.70%
> 5/8" Meter		#N/A	#N/A	-12.32%	-16.40%	-13.79%	-3.36%	3.94%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	-0.72%	-2.02%	-2.06%	-0.35%	0.96%	-1.53%	-1.55%	-1.57%	-1.53%	-1.49%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	-0.48%	0.05%	-0.10%	-0.97%	-0.04%	-1.75%	-1.74%	-1.73%	-1.76%	-1.74%
> 5/8" Meter		#N/A	#N/A	-2.86%	-2.33%	1.12%	-0.68%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	-1.10%	0.51%	2.35%	-0.38%	0.08%	-0.37%	-0.36%	-0.35%	-0.35%	-0.34%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	0.43%	4.59%	2.16%	-2.31%	-0.85%	-1.76%	-1.74%	-1.77%	-1.76%	-1.74%
> 5/8" Meter		#N/A	#N/A	-4.94%	-4.61%	0.85%	2.07%	-2.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	-4.45%	-2.11%	1.10%	1.70%	-1.96%	-0.11%	-0.11%	-0.11%	-0.11%	-0.10%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	-3.36%	-18.82%	-6.92%	5.62%	-0.44%	-1.71%	-1.74%	-1.78%	-1.75%	-1.73%
> 5/8" Meter		#N/A	#N/A	-0.96%	4.20%	8.82%	-3.82%	-0.75%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	1.14%	0.98%	5.51%	-3.54%	-0.74%	-0.08%	-0.08%	-0.08%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-3.75%	-2.09%	-0.47%	-1.57%	-1.73%	-0.70%	0.52%	-1.73%	-1.76%	-1.78%	-1.75%	-1.71%
> 5/8" Meter		-17.00%	-16.49%	-6.07%	-6.96%	-4.01%	-2.18%	0.81%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-8.52%	-6.69%	-0.33%	-0.66%	-0.58%	-0.51%	0.62%	-1.13%	-1.14%	-1.15%	-1.12%	-1.08%
General Service (Including Senior Citizens)													
5/8" Meter		-3.67%	-2.05%	-0.48%	-1.53%	-1.73%	-0.75%	0.50%	-1.68%	-1.78%	-1.81%	-1.70%	-1.73%
> 5/8" Meter		-17.01%	-16.50%	-6.07%	-6.95%	-4.01%	-2.18%	0.81%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-8.37%	-6.59%	-0.35%	-0.70%	-0.68%	-0.57%	0.60%	-1.14%	-1.15%	-1.16%	-1.13%	-1.10%
PHA		-3.92%	-4.80%	-1.65%	4.45%	1.30%	-2.08%	0.91%	0.00%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-28.48%	-30.20%	0.54%	-4.08%	-5.31%	0.90%	2.54%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	-5.11%	-7.89%	-0.34%	4.20%	-1.67%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	1.93%	-0.47%	2.47%	-0.61%	-1.66%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	38.31%	15.19%	-30.37%	-12.08%	22.47%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		26.62%	78.00%	-24.61%	-23.65%	22.20%	3.16%	-12.80%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	-0.38%	-0.58%	-0.46%	-0.65%	0.32%	-0.92%	-0.93%	-0.93%	-0.90%	-0.88%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3-Year Average Growth													
Senior Citizens													
5/8" Meter		-1.51%	0.18%	-0.82%	1.14%	-1.28%	-0.19%	-1.43%	-0.65%	-1.76%	-1.73%	-1.70%	-1.72%
> 5/8" Meter		-3.22%	-7.97%	-15.66%	-20.54%	-24.66%	-11.74%	-2.17%	2.11%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-1.51%	0.23%	-0.82%	1.13%	-1.29%	-0.19%	-1.43%	-0.65%	-1.76%	-1.73%	-1.69%	-1.72%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	-0.27%	-2.58%	-0.32%	-0.99%	-0.20%	-1.74%	-1.78%	-1.76%	-1.74%
> 5/8" Meter		#N/A	#N/A	#N/A	-12.89%	-15.46%	-7.05%	-2.25%	2.61%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	-0.48%	-2.71%	-0.24%	-0.74%	0.12%	-1.54%	-1.56%	-1.54%	-1.52%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	0.83%	-1.17%	0.50%	-1.23%	-0.62%	-1.74%	-1.74%	-1.74%	-1.74%
> 5/8" Meter		#N/A	#N/A	#N/A	-0.66%	-2.08%	0.82%	-0.45%	0.07%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	1.24%	-0.09%	1.74%	-0.37%	-0.07%	-0.36%	-0.36%	-0.35%	-0.35%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	3.36%	1.41%	1.46%	-2.14%	-1.14%	-1.76%	-1.76%	-1.76%	-1.76%
> 5/8" Meter		#N/A	#N/A	#N/A	-5.40%	-0.41%	-0.80%	1.38%	-1.36%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	-4.60%	0.99%	-0.55%	1.09%	-1.35%	-0.11%	-0.11%	-0.11%	-0.10%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	-9.90%	-9.99%	-4.40%	3.12%	-0.87%	-1.73%	-1.76%	-1.76%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	7.34%	0.66%	5.26%	-2.56%	-0.50%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	6.47%	-1.28%	3.15%	-2.40%	-0.52%	-0.08%	-0.08%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-4.47%	-1.61%	-2.62%	-0.09%	-2.41%	-0.24%	-1.04%	-0.24%	-1.74%	-1.77%	-1.76%	-1.74%
> 5/8" Meter		-13.06%	-11.76%	-14.87%	-4.77%	-6.59%	-2.16%	-1.46%	0.54%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-7.60%	-4.84%	-5.63%	0.53%	-1.56%	0.40%	-0.72%	0.03%	-1.13%	-1.14%	-1.13%	-1.11%
General Service (Including Senior Citizens)													
5/8" Meter		-4.40%	-1.54%	-2.61%	-0.09%	-2.40%	-0.28%	-1.06%	-0.24%	-1.74%	-1.77%	-1.75%	-1.74%
> 5/8" Meter		-13.07%	-11.76%	-14.88%	-4.77%	-6.59%	-2.16%	-1.46%	0.54%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-7.48%	-4.76%	-5.55%	0.48%	-1.62%	0.33%	-0.76%	0.01%	-1.15%	-1.16%	-1.14%	-1.12%
PHA		-4.56%	-3.74%	-3.20%	1.77%	0.90%	1.48%	-1.39%	0.60%	0.00%	0.00%	0.00%	0.00%
Charity and Schools		-23.54%	-19.57%	-21.48%	-2.18%	-3.78%	-1.94%	0.60%	1.69%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	-7.31%	-1.60%	-1.34%	2.78%	-1.12%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	2.22%	0.39%	0.51%	-0.41%	-1.11%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	21.64%	-11.90%	-10.07%	-8.23%	14.47%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		94.70%	18.62%	19.94%	-15.36%	-6.55%	4.32%	2.10%	-8.73%	0.00%	0.00%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	0.39%	-1.34%	0.21%	-0.74%	-0.10%	-0.92%	-0.93%	-0.91%	-0.90%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
5-Year Average Growth													
Senior Citizens													
5/8" Meter		-1.48%	-1.47%	-0.63%	0.18%	-0.92%	0.18%	-0.79%	-0.84%	-1.55%	-1.06%	-1.74%	-1.73%
> 5/8" Meter		7.54%	11.80%	-9.14%	-17.64%	-17.27%	-14.02%	-14.57%	-7.22%	-1.31%	1.26%	0.00%	0.00%
Total Senior Citizens		-1.48%	-1.44%	-0.63%	0.18%	-0.92%	0.17%	-0.80%	-0.84%	-1.55%	-1.06%	-1.74%	-1.73%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.41%	-1.33%	-0.89%	-1.30%	-0.84%	-1.75%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-9.20%	-8.18%	-4.29%	-1.36%	1.56%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	#N/A	#N/A	-0.43%	-1.26%	-0.76%	-1.07%	-0.56%	-1.53%	-1.53%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	0.10%	-0.72%	-0.41%	-1.43%	-1.06%	-1.75%	-1.74%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.67%	-1.21%	0.49%	-0.27%	0.04%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	#N/A	#N/A	0.59%	-0.02%	0.89%	-0.37%	-0.18%	-0.36%	-0.35%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	1.05%	0.50%	0.16%	-1.98%	-1.40%	-1.76%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-2.48%	-1.06%	-0.48%	0.82%	-0.82%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	#N/A	#N/A	-2.13%	-0.20%	-0.38%	0.61%	-0.85%	-0.11%	-0.11%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-3.99%	-6.29%	-3.34%	1.15%	-1.23%	-1.74%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	2.73%	0.09%	3.13%	-1.55%	-0.30%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	#N/A	#N/A	2.34%	-1.06%	1.85%	-1.48%	-0.34%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-3.87%	-3.86%	-2.89%	-1.57%	-2.29%	-0.33%	-1.25%	-0.84%	-1.33%	-0.86%	-1.75%	-1.75%
> 5/8" Meter		-7.89%	-9.00%	-10.33%	-9.87%	-10.68%	-3.75%	-3.70%	-1.30%	-0.88%	0.32%	0.00%	0.00%
Total General Service (excluding SC)		-5.70%	-5.79%	-4.76%	-3.20%	-3.64%	0.11%	-0.69%	-0.21%	-0.89%	-0.44%	-1.13%	-1.12%
General Service (Including Senior Citizens)													
5/8" Meter		-3.82%	-3.81%	-2.85%	-1.54%	-2.26%	-0.36%	-1.25%	-0.84%	-1.35%	-0.87%	-1.72%	-1.75%
> 5/8" Meter		-7.89%	-9.01%	-10.33%	-9.87%	-10.69%	-3.75%	-3.70%	-1.30%	-0.88%	0.32%	0.00%	0.00%
Total General Service (including SC)		-5.62%	-5.73%	-4.68%	-3.15%	-3.63%	0.06%	-0.74%	-0.26%	-0.92%	-0.46%	-1.14%	-1.13%
PHA		-2.77%	-4.07%	-3.41%	-0.54%	-1.42%	0.21%	0.91%	0.88%	-0.84%	0.36%	0.00%	0.00%
Charity and Schools		-12.75%	-14.39%	-14.69%	-13.70%	-15.37%	-0.96%	-1.30%	-1.17%	0.36%	1.01%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	#N/A	#N/A	-2.87%	-1.63%	-0.81%	1.66%	-0.67%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	#N/A	#N/A	1.08%	-0.43%	0.31%	-0.24%	-0.67%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	6.83%	0.51%	-6.17%	-5.02%	8.45%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		56.84%	63.05%	33.18%	-0.56%	20.89%	-8.39%	-9.11%	2.57%	1.25%	-5.33%	0.00%	0.00%
Fire Hydrants		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	#N/A	#N/A	-0.03%	-0.68%	-0.24%	-0.81%	-0.43%	-0.92%	-0.91%

Description	Escalation	Historical					Study Period						Customer - 5	
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		2023
Water - Existing Rates														
Actual Rate														
Service Charge (\$/bill)														
5/8"		\$ 6.37	\$ 6.12	\$ 6.44	\$ 6.46	\$ 6.46	\$ 6.58	\$ 6.61	\$ 6.61	\$ 6.61	\$ 6.61	\$ 6.61	\$ 6.61	\$ 6.61
3/4"		7.31	7.11	7.47	7.49	7.49	7.54	7.59	7.59	7.59	7.59	7.59	7.59	7.59
1"		9.65	9.51	9.97	9.98	9.98	9.90	10.02	10.02	10.02	10.02	10.02	10.02	10.02
1 1/4"		12.55	12.51	13.08	13.10	13.10	12.85	13.03	13.03	13.03	13.03	13.03	13.03	13.03
1 1/2"		14.81	14.89	15.56	15.56	15.56	15.13	15.38	15.38	15.38	15.38	15.38	15.38	15.38
2"		21.82	22.10	23.06	23.05	23.05	22.25	22.66	22.66	22.66	22.66	22.66	22.66	22.66
3"		37.27	38.07	39.69	39.64	39.64	37.91	38.70	38.70	38.70	38.70	38.70	38.70	38.70
4"		65.10	66.21	69.05	69.00	69.00	66.31	67.61	67.61	67.61	67.61	67.61	67.61	67.61
6"		125.72	128.30	133.73	133.60	133.60	127.93	130.56	130.56	130.56	130.56	130.56	130.56	130.56
8"		195.78	200.33	208.72	208.47	208.47	199.07	203.32	203.32	203.32	203.32	203.32	203.32	203.32
10"		284.23	290.56	302.78	302.43	302.43	289.09	295.18	295.18	295.18	295.18	295.18	295.18	295.18
12"		495.30	510.02	530.87	530.00	530.00	502.82	514.45	514.45	514.45	514.45	514.45	514.45	514.45
14"		-	-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge (\$/Mcf)														
0 - 2 Mcf		32.85	35.63	37.12	39.05	39.05	41.11	43.08	43.08	43.08	43.08	43.08	43.08	43.08
2 - 100 Mcf		26.62	28.64	30.20	31.54	31.54	35.91	37.67	37.67	37.67	37.67	37.67	37.67	37.67
100 - 2,000 Mcf		24.43	26.30	27.56	28.95	28.95	27.93	29.31	29.31	29.31	29.31	29.31	29.31	29.31
Over 2,000 Mcf		18.60	19.48	20.93	21.98	21.98	27.14	28.51	28.51	28.51	28.51	28.51	28.51	28.51
Private Fire Charge (\$/bill)														
5/8"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
3/4"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
1"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
1 1/4"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
1 1/2"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
2"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
3"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
4"		23.77	22.38	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63	25.63
6"		43.16	40.80	43.11	43.35	43.35	46.33	46.80	46.80	46.80	46.80	46.80	46.80	46.80
8"		63.78	60.53	63.93	64.27	64.27	68.73	69.52	69.52	69.52	69.52	69.52	69.52	69.52
10"		94.43	89.48	94.51	95.03	95.03	101.61	102.72	102.72	102.72	102.72	102.72	102.72	102.72
12"		141.32	135.39	142.90	143.61	143.61	153.78	156.11	156.11	156.11	156.11	156.11	156.11	156.11
14"		-	-	-	-	-	-	-	-	-	-	-	-	-
Public Fire Charge (Annual Charge)		6,951,000	7,391,000	7,874,000	8,162,000	8,162,000	7,617,000	7,866,000	-	-	-	-	-	-

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Effective Rate													
Effective Months													
Service Charge		12.00	6.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Volume Charge		11.50	5.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Service Charge													
5/8"		6.37	6.25	6.44	6.46	6.46	6.58	6.61	6.61	6.61	6.61	6.61	6.61
3/4"		7.31	7.21	7.47	7.49	7.49	7.54	7.59	7.59	7.59	7.59	7.59	7.59
1"		9.65	9.58	9.97	9.98	9.98	9.90	10.02	10.02	10.02	10.02	10.02	10.02
1 1/4"		12.55	12.53	13.08	13.10	13.10	12.85	13.03	13.03	13.03	13.03	13.03	13.03
1 1/2"		14.81	14.85	15.56	15.56	15.56	15.13	15.38	15.38	15.38	15.38	15.38	15.38
2"		21.82	21.96	23.06	23.05	23.05	22.25	22.66	22.66	22.66	22.66	22.66	22.66
3"		37.27	37.67	39.69	39.64	39.64	37.91	38.70	38.70	38.70	38.70	38.70	38.70
4"		65.10	65.66	69.05	69.00	69.00	66.31	67.61	67.61	67.61	67.61	67.61	67.61
6"		125.72	127.01	133.73	133.60	133.60	127.93	130.56	130.56	130.56	130.56	130.56	130.56
8"		195.78	198.06	208.72	208.47	208.47	199.07	203.32	203.32	203.32	203.32	203.32	203.32
10"		284.23	287.40	302.78	302.43	302.43	289.09	295.18	295.18	295.18	295.18	295.18	295.18
12"		495.30	502.66	530.87	530.00	530.00	502.82	514.45	514.45	514.45	514.45	514.45	514.45
14"		-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge													
0 - 2 Mcf		32.97	34.12	37.06	38.97	39.05	41.02	43.00	43.08	43.08	43.08	43.08	43.08
2 - 100 Mcf		26.70	27.55	30.14	31.48	31.54	35.73	37.60	37.67	37.67	37.67	37.67	37.67
100 - 2,000 Mcf		24.51	25.29	27.51	28.89	28.95	27.97	29.25	29.31	29.31	29.31	29.31	29.31
Over 2,000 Mcf		18.64	19.00	20.87	21.94	21.98	26.93	28.45	28.51	28.51	28.51	28.51	28.51
Private Fire Charge													
5/8"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
3/4"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
1"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
1 1/4"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
1 1/2"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
2"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
3"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
4"		23.77	23.08	23.66	23.79	23.79	25.41	25.63	25.63	25.63	25.63	25.63	25.63
6"		43.16	41.98	43.11	43.35	43.35	46.33	46.80	46.80	46.80	46.80	46.80	46.80
8"		63.78	62.16	63.93	64.27	64.27	68.73	69.52	69.52	69.52	69.52	69.52	69.52
10"		94.43	91.96	94.51	95.03	95.03	101.61	102.72	102.72	102.72	102.72	102.72	102.72
12"		141.32	138.36	142.90	143.61	143.61	153.78	156.11	156.11	156.11	156.11	156.11	156.11
14"		-	-	-	-	-	-	-	-	-	-	-	-

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Calculated Billings (prior to adjustment factor)													Customer - 6
Senior Citizens													
5/8" Meter		3,695	3,864	4,151	4,521	4,651	4,921	5,035	4,974	4,912	4,850	4,789	4,727
> 5/8" Meter		2	2	2	1	2	2	2	2	2	2	2	2
Total Senior Citizens		3,697	3,866	4,152	4,523	4,652	4,923	5,037	4,975	4,914	4,852	4,790	4,729
General Service (Residential)													
5/8" Meter		129,633	130,884	136,238	139,705	137,799	147,985	151,673	149,820	147,739	145,658	143,750	141,843
> 5/8" Meter		13,098	13,292	14,101	14,523	14,556	16,459	17,222	17,253	17,253	17,253	17,253	17,253
Total General Service (Residential)		142,731	144,176	150,339	154,229	152,355	164,443	168,895	167,073	164,992	162,911	161,003	159,095
General Service (Commercial)													
5/8" Meter		10,947	11,293	12,109	12,912	12,565	13,628	14,002	13,816	13,618	13,419	13,221	13,033
> 5/8" Meter		33,740	35,337	37,818	42,371	42,403	45,583	47,786	47,873	47,873	47,873	47,873	47,873
Total General Service (Commercial)		44,688	46,630	49,927	55,284	54,967	59,211	61,787	61,689	61,491	61,293	61,094	60,906
General Service (Industrial)													
5/8" Meter		194	196	211	233	223	236	242	239	235	232	229	225
> 5/8" Meter		2,808	2,474	2,836	2,782	2,989	3,037	3,183	3,188	3,188	3,188	3,188	3,188
Total General Service (Industrial)		3,001	2,670	3,047	3,015	3,212	3,273	3,425	3,427	3,424	3,420	3,417	3,414
General Service (Public Utilities)													
5/8" Meter		14	16	16	16	19	21	21	21	21	20	20	20
> 5/8" Meter		203	270	286	369	379	406	426	426	426	426	426	426
Total General Service (Public Utilities)		217	286	302	386	398	427	447	448	447	447	447	446
General Service (Excluding Senior Citizens)													
5/8" Meter		140,788	142,389	148,574	152,867	150,606	161,869	165,938	163,896	161,613	159,330	157,220	155,121
> 5/8" Meter		49,849	51,374	55,040	60,046	60,327	65,485	68,616	68,741	68,741	68,741	68,741	68,741
Total General Service (excluding SC)		190,637	193,762	203,615	212,913	210,933	227,354	234,554	232,637	230,354	228,071	225,961	223,862
General Service (Including Senior Citizens)													
5/8" Meter		144,483	146,252	152,725	157,388	155,256	166,791	170,973	168,870	166,525	164,180	162,009	159,848
> 5/8" Meter		49,851	51,376	55,042	60,048	60,328	65,486	68,618	68,743	68,743	68,743	68,743	68,743
Total General Service (including SC)		194,334	197,628	207,767	217,436	215,585	232,277	239,591	237,612	235,267	232,923	230,752	228,591
PHA		5,277	5,140	5,538	6,165	5,683	6,093	6,372	6,383	6,383	6,383	6,383	6,383
Charities & Schools		5,055	5,203	5,686	5,278	4,971	5,658	5,928	5,939	5,939	5,939	5,939	5,939
Hospital/University		5,430	5,425	5,929	6,478	7,124	7,249	7,600	7,614	7,614	7,614	7,614	7,614
Hand Bill		13,787	14,058	15,234	16,287	16,293	16,744	17,577	17,612	17,612	17,612	17,612	17,612
Scheduled		1	1	1	1	1	1	1	1	1	1	1	1
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		417	424	268	351	455	356	373	374	374	374	374	374
Private Fire (Unmetered)		2,122	2,065	2,299	2,550	2,795	2,987	3,016	3,016	3,016	3,016	3,016	3,016
Public Fire Charge (Hydrants)		6,951	7,391	7,874	8,162	8,162	7,617	7,866	-	-	-	-	-
Total		233,373	237,336	250,596	262,709	261,070	278,982	288,324	278,551	276,206	273,861	271,690	269,529

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Retail - Billings Under Existing Rates													Customer - 7
Senior Citizens													
5/8" Meter		3,695	3,864	4,151	4,521	4,651	4,921	5,035	4,974	4,912	4,850	4,789	4,727
> 5/8" Meter		2	2	2	1	2	2	2	2	2	2	2	2
Total Senior Citizens		3,697	3,866	4,152	4,523	4,652	4,923	5,037	4,975	4,914	4,852	4,790	4,729
General Service (Residential)													
5/8" Meter		129,633	130,884	136,238	139,705	137,799	147,985	151,673	149,820	147,739	145,658	143,750	141,843
> 5/8" Meter		13,098	13,292	14,101	14,523	14,556	16,459	17,222	17,253	17,253	17,253	17,253	17,253
Total General Service (Residential)		142,731	144,176	150,339	154,229	152,355	164,443	168,895	167,073	164,992	162,911	161,003	159,095
General Service (Commercial)													
5/8" Meter		10,947	11,293	12,109	12,912	12,565	13,628	14,002	13,816	13,618	13,419	13,221	13,033
> 5/8" Meter		33,740	35,337	37,818	42,371	42,403	45,583	47,786	47,873	47,873	47,873	47,873	47,873
Total General Service (Commercial)		44,688	46,630	49,927	55,284	54,967	59,211	61,787	61,689	61,491	61,293	61,094	60,906
General Service (Industrial)													
5/8" Meter		194	196	211	233	223	236	242	239	235	232	229	225
> 5/8" Meter		2,808	2,474	2,836	2,782	2,989	3,037	3,183	3,188	3,188	3,188	3,188	3,188
Total General Service (Industrial)		3,001	2,670	3,047	3,015	3,212	3,273	3,425	3,427	3,424	3,420	3,417	3,414
General Service (Public Utilities)													
5/8" Meter		14	16	16	16	19	21	21	21	21	20	20	20
> 5/8" Meter		203	270	286	369	379	406	426	426	426	426	426	426
Total General Service (Public Utilities)		217	286	302	386	398	427	447	448	447	447	447	446
General Service (Excluding Senior Citizens)													
5/8" Meter		140,788	142,389	148,574	152,867	150,606	161,869	165,938	163,896	161,613	159,330	157,220	155,121
> 5/8" Meter		49,849	51,374	55,040	60,046	60,327	65,485	68,616	68,741	68,741	68,741	68,741	68,741
Total General Service (excluding SC)		190,637	193,762	203,615	212,913	210,933	227,354	234,554	232,637	230,354	228,071	225,961	223,862
General Service (Including Senior Citizens)													
5/8" Meter		144,483	146,252	152,725	157,388	155,256	166,791	170,973	168,870	166,525	164,180	162,009	159,848
> 5/8" Meter		49,851	51,376	55,042	60,048	60,328	65,486	68,618	68,743	68,743	68,743	68,743	68,743
Total General Service (including SC)		194,334	197,628	207,767	217,436	215,585	232,277	239,591	237,612	235,267	232,923	230,752	228,591
PHA		5,277	5,140	5,538	6,165	5,683	6,093	6,372	6,383	6,383	6,383	6,383	6,383
Charities & Schools		5,055	5,203	5,686	5,278	4,971	5,658	5,928	5,939	5,939	5,939	5,939	5,939
Hospital/University		5,430	5,425	5,929	6,478	7,124	7,249	7,600	7,614	7,614	7,614	7,614	7,614
Hand Bill		13,787	14,058	15,234	16,287	16,293	16,744	17,577	17,612	17,612	17,612	17,612	17,612
Scheduled		1	1	1	1	1	1	1	1	1	1	1	1
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		417	424	268	351	455	356	373	374	374	374	374	374
Private Fire (Unmetered)		2,122	2,065	2,299	2,550	2,795	2,987	3,016	3,016	3,016	3,016	3,016	3,016
Public Fire Charge (Hydrants)		6,951	7,391	7,874	8,162	8,162	7,617	7,866	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Total		233,373	237,336	250,596	262,709	261,070	278,982	288,324	278,551	276,206	273,861	271,690	269,529

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - General Service Collections													Customer - 8
Total General Service Billings		223,883	227,455	240,155	251,645	249,657	268,022	277,069	275,161	272,816	270,471	268,300	266,139
Total General Service + xxxxxxxxxx Billings		223,883	227,455	240,155	251,645	249,657	268,022	277,069	275,161	272,816	270,471	268,300	266,139
Collection Factors													
Current Year		84.71%	84.76%	86.14%	87.02%	86.88%	85.90%	85.90%	85.90%	85.90%	85.90%	85.90%	85.90%
First Year Prior		9.08%	9.67%	9.80%	8.61%	8.24%	9.08%	9.08%	9.08%	9.08%	9.08%	9.08%	9.08%
Second Year Prior		1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
Collections													
		Actual	Actual	Actual	Actual	Actual	Calculated						
General Service		209,973	219,325	231,869	244,054	241,253	256,825	266,233	265,702	263,656	261,399	259,285	257,195
xxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Public Fire		6,951	7,391	7,874	8,162	8,162	7,617	7,866	-	-	-	-	-
Private Fire		2,097	2,026	2,236	2,374	2,740	3,343	3,389	3,390	3,390	3,390	3,390	3,390
Total		219,021	228,742	241,979	254,590	252,155	267,785	277,488	269,092	267,046	264,789	262,674	260,584
General Service	Calculated	209,899	217,499	232,653	243,207	241,384				5 Year Total			
General Service + Wholesale	Calculated	220,246	227,402	244,131	246,963	244,945				1,144,641			
General Service + Wholesale	Actual	220,994	229,237	243,405	247,804	245,003				1,183,687			
	Ratio	99.7%	99.2%	100.3%	99.7%	100.0%				99.8%			
General Service + xxxxxxxxxx	Calculated	220,246	227,402	244,131	246,963	244,945				1,183,687			
General Service + xxxxxxxxxx	Actual	220,321	229,229	243,347	247,810	244,815				1,185,521			
	Ratio	100.0%	99.2%	100.3%	99.7%	100.1%				99.8%			
General Service + xxxxxxxxxx	Calculated	98.4%	100.0%	101.7%	98.1%	98.1%							
General Service + xxxxxxxxxx	Actual	98.4%	100.8%	101.3%	98.5%	98.1%							
Collections - Detail													
Senior Citizens							4,722	4,846	4,808	4,751	4,692	4,632	4,573
General Service (Residential)							157,497	162,389	161,416	159,533	157,528	155,668	153,823
General Service (Commercial)							56,716	59,309	59,525	59,386	59,196	59,005	58,822
General Service (Industrial)							3,150	3,289	3,306	3,306	3,302	3,299	3,296
General Service (Public Utilities)							409	429	432	432	432	431	431
PHA							5,846	6,115	6,156	6,162	6,162	6,162	6,162
Charities & Schools							5,394	5,684	5,728	5,733	5,733	5,733	5,733
Hospital/University							6,975	7,298	7,344	7,351	7,351	7,351	7,351
Hand Bill							16,116	16,873	16,986	17,002	17,002	17,002	17,002
Scheduled							1	1	1	1	1	1	1
xxxxxxx							-	-	-	-	-	-	-
xxxxxxx							-	-	-	-	-	-	-
Fire Service							356	373	374	374	374	374	374
Private Fire (Unmetered)							2,987	3,016	3,016	3,016	3,016	3,016	3,016
Public Fire Charge (Hydrants)							7,617	7,866	-	-	-	-	-
xxxxxxx							-	-	-	-	-	-	-
Total							267,785	277,488	269,092	267,046	264,789	262,674	260,584

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Wholesale													Customer - 9
Bucks County													
Commodity Charge (\$/Mcf)		1.651	1.218	1.708	2.279	2.279	-	-	-	-	-	-	-
Demand Charge (\$/mgd of maximum demand)		99,347	109,095	135,048	159,238	159,238	-	-	-	-	-	-	-
Lump Sum Payment (\$/year)		3,036,000	2,784,100	3,226,000	-	-	-	-	-	-	-	-	-
Usage (Mcf)		646,968	535,749	535,000	-	-	-	-	-	-	-	-	-
Max Demand (mgd)		24.50	21.00	21.00	-	-	-	-	-	-	-	-	-
Management Fee		0.00%	12.00%	12.00%	12.00%	12.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Commodity (\$1,000)		1,068	653	914	-	-	-	-	-	-	-	-	-
Demand (\$1,000)		2,434	2,291	2,836	-	-	-	-	-	-	-	-	-
Lump Sum (\$1,000)		3,036	2,784	3,226	-	-	-	-	-	-	-	-	-
Management Fee (\$1,000)		-	687	837	-	-	-	-	-	-	-	-	-
Subtotal (\$1,000)		6,538	6,415	7,813	-	-	-	-	-	-	-	-	-
Aqua PA													
Commodity Charge (\$/Mcf)		3.217	2.448	2.698	2.969	2.969	3.404	3.508	3.508	3.508	3.508	3.508	3.508
Lump Sum Payment (\$/year)		2,816,000	2,775,000	2,933,000	3,030,000	3,030,000	2,695,000	2,707,000	2,707,000	2,707,000	2,707,000	2,707,000	2,707,000
Usage (Mcf)		201,045	161,918	147,909	129,410	69,888	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Management Fee		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Commodity (\$1,000)		647	396	399	384	207	340	351	351	351	351	351	351
Lump Sum (\$1,000)		2,816	2,775	2,933	3,030	3,030	2,695	2,707	2,707	2,707	2,707	2,707	2,707
Management Fee (\$1,000)		346	317	333	341	324	304	306	306	306	306	306	306
Subtotal (\$1,000)		3,809	3,489	3,665	3,756	3,561	3,339	3,364	3,364	3,364	3,364	3,364	3,364
Total (\$1,000)		10,347	9,904	11,478	3,756	3,561	3,339	3,364	3,364	3,364	3,364	3,364	3,364
Actual		11,001	9,912	11,537	3,750	3,561	-	-	-	-	-	-	-

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water - Revenue Summary													Customer - 10
Revenue (\$1,000)													
General Service		209,973	219,325	231,869	244,054	241,253	256,825	266,233	265,702	263,656	261,399	259,285	257,195
xxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Public Fire		6,951	7,391	7,874	8,162	8,162	7,617	7,866	-	-	-	-	-
Private Fire		2,097	2,026	2,236	2,374	2,740	3,343	3,389	3,390	3,390	3,390	3,390	3,390
Wholesale		10,347	9,904	11,478	3,756	3,561	3,339	3,364	3,364	3,364	3,364	3,364	3,364
Total		229,368	238,646	253,457	258,346	255,717	271,124	280,852	272,455	270,409	268,152	266,038	263,948

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Accounts													Customer - 11
Senior Citizens													
5/8" Meter		19,144	19,217	19,501	20,171	21,365	21,365	21,365	21,365	21,365	21,365	21,365	21,365
> 5/8" Meter		3	4	4	3	3	3	3	3	3	3	3	3
Total Senior Citizens		19,147	19,221	19,505	20,174	21,368	21,368	21,368	21,368	21,368	21,368	21,368	21,368
General Service (Residential)													
5/8" Meter		423,794	409,711	409,286	402,733	409,585	409,585	409,585	409,585	409,585	409,585	409,585	409,585
> 5/8" Meter		2,873	2,874	3,466	3,934	4,721	4,721	4,721	4,721	4,721	4,721	4,721	4,721
Total General Service (Residential)		426,667	412,585	412,752	406,667	414,306	414,306	414,306	414,306	414,306	414,306	414,306	414,306
General Service (Commercial)													
5/8" Meter		27,848	27,542	28,102	28,013	28,046	28,046	28,046	28,046	28,046	28,046	28,046	28,046
> 5/8" Meter		6,241	6,134	6,524	6,692	6,855	6,855	6,855	6,855	6,855	6,855	6,855	6,855
Total General Service (Commercial)		34,089	33,676	34,626	34,705	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901
General Service (Industrial)													
5/8" Meter		545	534	534	527	524	524	524	524	524	524	524	524
> 5/8" Meter		525	473	513	510	508	508	508	508	508	508	508	508
Total General Service (Industrial)		1,070	1,007	1,047	1,037	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032
General Service (Public Utilities)													
5/8" Meter		34	34	37	44	48	48	48	48	48	48	48	48
> 5/8" Meter		62	71	79	80	87	87	87	87	87	87	87	87
Total General Service (Public Utilities)		96	105	116	124	135	135	135	135	135	135	135	135
General Service (Excluding Senior Citizens)													
5/8" Meter		452,221	437,821	437,959	431,317	438,203	438,203	438,203	438,203	438,203	438,203	438,203	438,203
> 5/8" Meter		9,701	9,552	10,582	11,216	12,171	12,171	12,171	12,171	12,171	12,171	12,171	12,171
Total General Service (excluding SC)		461,922	447,373	448,541	442,533	450,374	450,374	450,374	450,374	450,374	450,374	450,374	450,374
General Service (Including Senior Citizens)													
5/8" Meter		471,365	457,038	457,460	451,488	459,568	459,568	459,568	459,568	459,568	459,568	459,568	459,568
> 5/8" Meter		9,704	9,556	10,586	11,219	12,174	12,174	12,174	12,174	12,174	12,174	12,174	12,174
Total General Service (including SC)		481,069	466,594	468,046	462,707	471,742	471,742	471,742	471,742	471,742	471,742	471,742	471,742
PHA		6,065	5,904	5,857	5,761	5,619	5,619	5,619	5,619	5,619	5,619	5,619	5,619
Charities & Schools		2,635	2,593	2,606	2,500	2,424	2,424	2,424	2,424	2,424	2,424	2,424	2,424
Hospital/University		351	365	375	431	426	426	426	426	426	426	426	426
Hand Bill		271	248	254	247	242	242	242	242	242	242	242	242
Scheduled		2	2	2	2	3	3	3	3	3	3	3	3
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		89	85	81	74	77	77	77	77	77	77	77	77
Sewer Only	Account - No Growth	36	46	59	66	77	77	77	77	77	77	77	77
Groundwater (Non-City)	Account - No Growth	4	5	5	4	3	3	3	3	3	3	3	3
xxxxxxxxxx	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Total		490,522	475,842	477,285	471,792	480,613	480,613	480,613	480,613	480,613	480,613	480,613	480,613

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer Customer Account Growth													Customer - 11A
Annual Growth													
Senior Citizens													
5/8" Meter		1.91%	0.38%	1.48%	3.44%	5.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		50.00%	33.33%	0.00%	-25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		1.92%	0.39%	1.48%	3.43%	5.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	-3.32%	-0.10%	-1.60%	1.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	0.03%	20.60%	13.50%	20.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	-3.30%	0.04%	-1.47%	1.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	-1.10%	2.03%	-0.32%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	-1.71%	6.36%	2.58%	2.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	-1.21%	2.82%	0.23%	0.56%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	-2.02%	0.00%	-1.31%	-0.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	-9.90%	8.46%	-0.58%	-0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	-5.89%	3.97%	-0.96%	-0.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	0.00%	8.82%	18.92%	9.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	14.52%	11.27%	1.27%	8.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	9.38%	10.48%	6.90%	8.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		3.53%	-3.18%	0.03%	-1.52%	1.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-3.37%	-1.54%	10.78%	5.99%	8.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		3.37%	-3.15%	0.26%	-1.34%	1.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		3.46%	-3.04%	0.09%	-1.31%	1.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-3.36%	-1.53%	10.78%	5.98%	8.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		3.31%	-3.01%	0.31%	-1.14%	1.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		-0.77%	-2.65%	-0.80%	-1.64%	-2.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charities & Schools		-14.64%	-1.59%	0.50%	-4.07%	-3.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	3.99%	2.74%	14.93%	-1.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	-8.49%	2.42%	-2.76%	-2.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		39.06%	-4.49%	-4.71%	-8.64%	4.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Only		38.46%	27.78%	28.26%	11.86%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	25.00%	0.00%	-20.00%	-25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	-2.99%	0.30%	-1.15%	1.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2-Year Average Growth													
Senior Citizens													
5/8" Meter		1.64%	1.14%	0.93%	2.45%	4.67%	2.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		22.47%	41.42%	15.47%	-13.40%	-13.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		1.64%	1.15%	0.93%	2.45%	4.67%	2.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	-1.73%	-0.86%	0.04%	0.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	9.84%	17.00%	16.71%	9.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	-1.64%	-0.72%	0.19%	0.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	0.46%	0.85%	-0.10%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	2.24%	4.45%	2.51%	1.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	0.78%	1.52%	0.40%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	-1.01%	-0.66%	-0.94%	-0.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	-1.15%	3.84%	-0.49%	-0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	-1.08%	1.48%	-0.72%	-0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	4.32%	13.76%	13.90%	4.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	12.88%	6.15%	4.94%	4.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	9.92%	8.67%	7.88%	4.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		2.03%	0.12%	-1.59%	-0.75%	0.03%	0.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-1.56%	-2.46%	4.44%	8.36%	7.25%	4.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		1.96%	0.06%	-1.46%	-0.54%	0.20%	0.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		2.02%	0.16%	-1.49%	-0.61%	0.23%	0.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-1.56%	-2.44%	4.45%	8.35%	7.24%	4.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		1.94%	0.10%	-1.36%	-0.42%	0.39%	0.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		-0.28%	-1.72%	-1.73%	-1.22%	-2.05%	-1.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charities & Schools		-8.17%	-8.35%	-0.55%	-1.81%	-3.56%	-1.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	3.36%	8.67%	6.58%	-0.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	-3.19%	-0.20%	-2.39%	-1.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	0.00%	0.00%	22.47%	22.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		29.59%	15.24%	-4.60%	-6.69%	-2.50%	2.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Only		17.67%	33.01%	28.02%	19.78%	14.24%	8.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	#N/A	11.80%	-10.56%	-22.54%	-13.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	-1.36%	-0.43%	0.35%	0.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3-Year Average Growth													
Senior Citizens													
5/8" Meter		1.51%	1.22%	1.25%	1.76%	3.60%	3.09%	1.94%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		14.47%	25.99%	25.99%	0.00%	-9.14%	-9.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		1.51%	1.22%	1.26%	1.76%	3.59%	3.09%	1.94%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	-1.68%	-0.01%	0.02%	0.56%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	11.05%	17.99%	10.85%	6.27%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	-1.59%	0.14%	0.13%	0.62%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	0.20%	0.61%	-0.07%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	2.35%	3.77%	1.66%	0.81%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	0.60%	1.20%	0.26%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	-1.11%	-0.63%	-0.63%	-0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	-0.96%	2.41%	-0.33%	-0.13%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	-1.04%	0.82%	-0.48%	-0.16%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	8.97%	12.18%	9.06%	2.94%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	8.87%	7.01%	3.27%	2.84%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	8.91%	8.74%	5.19%	2.87%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		1.56%	0.26%	0.09%	-1.57%	0.03%	0.02%	0.53%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-1.00%	-1.55%	1.77%	4.96%	8.41%	4.77%	2.76%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		1.51%	0.22%	0.13%	-1.42%	0.22%	0.14%	0.59%	0.00%	0.00%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		1.56%	0.30%	0.14%	-1.43%	0.18%	0.15%	0.59%	0.00%	0.00%	0.00%	0.00%	0.00%
> 5/8" Meter		-0.99%	-1.55%	1.78%	4.95%	8.41%	4.77%	2.76%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		1.51%	0.26%	0.17%	-1.29%	0.37%	0.26%	0.65%	0.00%	0.00%	0.00%	0.00%	0.00%
PHA		-0.32%	-1.08%	-1.41%	-1.70%	-1.64%	-1.37%	-0.83%	0.00%	0.00%	0.00%	0.00%	0.00%
Charities & Schools		-5.67%	-6.03%	-5.49%	-1.74%	-2.22%	-2.38%	-1.02%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	7.08%	5.29%	4.34%	-0.39%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	-3.04%	-0.81%	-1.60%	-0.68%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	0.00%	14.47%	14.47%	14.47%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		-18.27%	17.05%	8.17%	-5.97%	-3.24%	-1.67%	1.33%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Only		-15.66%	20.95%	31.41%	22.39%	18.73%	9.28%	5.27%	0.00%	0.00%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	#N/A	#N/A	0.00%	-15.66%	-15.66%	-9.14%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	-1.29%	0.33%	0.23%	0.62%	0.00%	0.00%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
5-Year Average Growth													
Senior Citizens													
5/8" Meter		0.56%	1.49%	1.28%	1.71%	2.61%	2.22%	2.14%	1.84%	1.16%	0.00%	0.00%	0.00%
> 5/8" Meter		0.00%	14.87%	14.87%	8.45%	8.45%	0.00%	-5.59%	-5.59%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		0.56%	1.50%	1.28%	1.71%	2.61%	2.22%	2.14%	1.84%	1.16%	0.00%	0.00%	0.00%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.68%	-0.01%	0.01%	0.34%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	10.44%	10.44%	6.38%	3.71%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	#N/A	#N/A	-0.59%	0.08%	0.08%	0.37%	0.00%	0.00%	0.00%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	0.14%	0.36%	-0.04%	0.02%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	1.89%	2.25%	0.99%	0.48%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	#N/A	#N/A	0.47%	0.72%	0.16%	0.11%	0.00%	0.00%	0.00%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.78%	-0.38%	-0.38%	-0.11%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.66%	1.44%	-0.20%	-0.08%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	#N/A	#N/A	-0.72%	0.49%	-0.29%	-0.10%	0.00%	0.00%	0.00%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	7.14%	7.14%	5.34%	1.76%	0.00%	0.00%	0.00%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	7.01%	4.15%	1.95%	1.69%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	#N/A	#N/A	7.06%	5.15%	3.08%	1.71%	0.00%	0.00%	0.00%
General Service (Excluding Senior Citizens)													
5/8" Meter		1.03%	0.36%	0.29%	-0.14%	0.06%	-0.63%	0.02%	0.01%	0.32%	0.00%	0.00%	0.00%
> 5/8" Meter		-1.74%	-1.80%	1.14%	2.30%	3.93%	4.64%	4.97%	2.84%	1.65%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		0.97%	0.32%	0.31%	-0.08%	0.16%	-0.51%	0.13%	0.08%	0.35%	0.00%	0.00%	0.00%
General Service (Including Senior Citizens)													
5/8" Meter		1.01%	0.41%	0.33%	-0.06%	0.17%	-0.51%	0.11%	0.09%	0.36%	0.00%	0.00%	0.00%
> 5/8" Meter		-1.74%	-1.80%	1.15%	2.30%	3.93%	4.64%	4.96%	2.83%	1.65%	0.00%	0.00%	0.00%
Total General Service (including SC)		0.95%	0.36%	0.35%	-0.01%	0.26%	-0.39%	0.22%	0.16%	0.39%	0.00%	0.00%	0.00%
PHA		-0.42%	-0.88%	-0.88%	-1.13%	-1.67%	-1.52%	-0.98%	-0.83%	-0.50%	0.00%	0.00%	0.00%
Charities & Schools		-3.77%	-3.81%	-3.65%	-4.36%	-4.72%	-1.66%	-1.34%	-1.44%	-0.62%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	#N/A	#N/A	3.95%	3.14%	2.58%	-0.23%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	#N/A	#N/A	-2.24%	-0.49%	-0.96%	-0.41%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	8.45%	8.45%	8.45%	8.45%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		-11.40%	-13.74%	-13.05%	6.90%	3.77%	-2.86%	-1.96%	-1.01%	0.80%	0.00%	0.00%	0.00%
Sewer Only		-12.20%	-5.49%	-0.34%	20.48%	24.25%	16.42%	10.85%	5.47%	3.13%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	#N/A	#N/A	#N/A	#N/A	-5.59%	-9.71%	-9.71%	-5.59%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	#N/A	#N/A	-0.41%	0.20%	0.14%	0.37%	0.00%	0.00%	0.00%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Billed Volume (Mcf)													Customer - 12
Senior Citizens													
5/8" Meter		106,243	109,989	109,832	115,854	117,670	119,663	117,524	115,386	113,461	111,537	109,612	107,688
> 5/8" Meter		56	73	48	28	25	27	27	27	27	27	27	27
Total Senior Citizens		106,299	110,061	109,880	115,882	117,695	119,689	117,551	115,413	113,488	111,563	109,639	107,714
General Service (Residential)													
5/8" Meter		3,028,078	3,012,125	2,891,728	2,853,362	2,783,319	2,865,243	2,815,941	2,766,640	2,717,338	2,668,036	2,622,843	2,577,650
> 5/8" Meter		385,517	375,678	363,363	353,284	349,677	378,003	378,003	378,003	378,003	378,003	378,003	378,003
Total General Service (Residential)		3,413,595	3,387,803	3,255,091	3,206,646	3,132,996	3,243,246	3,193,944	3,144,643	3,095,341	3,046,039	3,000,846	2,955,653
General Service (Commercial)													
5/8" Meter		318,210	322,071	318,045	327,982	316,549	321,928	316,298	310,668	305,319	299,970	294,621	289,554
> 5/8" Meter		1,122,862	1,138,442	1,109,930	1,184,252	1,183,177	1,185,896	1,185,896	1,185,896	1,185,896	1,185,896	1,185,896	1,185,896
Total General Service (Commercial)		1,441,073	1,460,513	1,427,975	1,512,234	1,499,726	1,507,824	1,502,194	1,496,564	1,491,215	1,485,866	1,480,518	1,475,450
General Service (Industrial)													
5/8" Meter		5,794	5,733	5,710	6,186	5,865	5,871	5,765	5,665	5,564	5,464	5,369	5,274
> 5/8" Meter		84,172	77,354	78,617	78,570	84,580	80,919	80,919	80,919	80,919	80,919	80,919	80,919
Total General Service (Industrial)		89,966	83,087	84,327	84,756	90,445	86,790	86,684	86,584	86,483	86,383	86,288	86,193
General Service (Public Utilities)													
5/8" Meter		417	462	424	394	476	480	472	464	456	447	440	432
> 5/8" Meter		6,432	8,471	8,084	10,317	10,507	10,349	10,349	10,349	10,349	10,349	10,349	10,349
Total General Service (Public Utilities)		6,849	8,933	8,507	10,711	10,983	10,829	10,821	10,813	10,805	10,796	10,789	10,781
General Service (Excluding Senior Citizens)													
5/8" Meter		3,352,499	3,340,391	3,215,906	3,187,924	3,106,209	3,193,522	3,138,476	3,083,436	3,028,677	2,973,918	2,923,273	2,872,910
> 5/8" Meter		1,598,983	1,599,945	1,559,994	1,626,423	1,627,941	1,655,167	1,655,167	1,655,167	1,655,167	1,655,167	1,655,167	1,655,167
Total General Service (excluding SC)		4,951,482	4,940,336	4,775,900	4,814,347	4,734,150	4,848,689	4,793,643	4,738,603	4,683,844	4,629,085	4,578,441	4,528,078
General Service (Including Senior Citizens)													
5/8" Meter		3,458,742	3,450,380	3,325,738	3,303,778	3,223,879	3,313,184	3,256,000	3,198,821	3,142,138	3,085,455	3,032,886	2,980,598
> 5/8" Meter		1,599,039	1,600,018	1,560,042	1,626,452	1,627,966	1,655,194	1,655,194	1,655,194	1,655,194	1,655,194	1,655,194	1,655,194
Total General Service (including SC)		5,057,781	5,050,398	4,885,780	4,930,230	4,851,845	4,968,378	4,911,194	4,854,015	4,797,332	4,740,649	4,688,079	4,635,792
PHA		176,852	166,958	165,961	178,292	163,177	166,154	166,154	166,154	166,154	166,154	166,154	166,154
Charities & Schools		215,165	215,339	211,193	190,766	178,962	188,237	188,237	188,237	188,237	188,237	188,237	188,237
Hospital/University		270,845	261,881	262,322	272,722	300,812	290,832	290,832	290,832	290,832	290,832	290,832	290,832
Hand Bill		543,021	527,519	524,773	497,646	445,530	426,711	426,711	426,711	426,711	426,711	426,711	426,711
Scheduled		12	16	22	21	16	24	24	24	24	24	24	24
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		10,801	9,863	2,991	2,665	6,393	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Sewer Only		32,453	57,061	76,652	70,303	83,596	77,000	77,000	77,000	77,000	77,000	77,000	77,000
Groundwater (Non-City)		159,607	161,399	157,872	276,587	211,684	210,000	210,000	210,000	210,000	210,000	210,000	210,000
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Total		6,466,536	6,450,432	6,287,566	6,419,231	6,242,015	6,331,836	6,274,652	6,217,473	6,160,790	6,104,107	6,051,537	5,999,250

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Billed Volume Per Account (Mcf/Account)													Customer - 13
Senior Citizens													
5/8" Meter		5.55	5.72	5.63	5.74	5.51	5.60	5.50	5.40	5.31	5.22	5.13	5.04
> 5/8" Meter		18.73	18.13	12.00	9.40	8.20	8.87	8.87	8.87	8.87	8.87	8.87	8.87
Total Senior Citizens		5.55	5.73	5.63	5.74	5.51	5.60	5.50	5.40	5.31	5.22	5.13	5.04
General Service (Residential)													
5/8" Meter		7.15	7.35	7.07	7.08	6.80	7.00	6.88	6.75	6.63	6.51	6.40	6.29
> 5/8" Meter		134.19	130.72	104.84	89.80	74.07	80.07	80.07	80.07	80.07	80.07	80.07	80.07
Total General Service (Residential)		8.00	8.21	7.89	7.89	7.56	7.83	7.71	7.59	7.47	7.35	7.24	7.13
General Service (Commercial)													
5/8" Meter		11.43	11.69	11.32	11.71	11.29	11.48	11.28	11.08	10.89	10.70	10.50	10.32
> 5/8" Meter		179.92	185.60	170.13	176.97	172.60	173.00	173.00	173.00	173.00	173.00	173.00	173.00
Total General Service (Commercial)		42.27	43.37	41.24	43.57	42.97	43.20	43.04	42.88	42.73	42.57	42.42	42.28
General Service (Industrial)													
5/8" Meter		10.63	10.74	10.69	11.74	11.19	11.20	11.00	10.81	10.62	10.43	10.25	10.06
> 5/8" Meter		160.33	163.54	153.25	154.06	166.50	159.29	159.29	159.29	159.29	159.29	159.29	159.29
Total General Service (Industrial)		84.08	82.51	80.54	81.73	87.64	84.10	84.00	83.90	83.80	83.70	83.61	83.52
General Service (Public Utilities)													
5/8" Meter		12.26	13.60	11.45	8.96	9.92	10.00	9.83	9.66	9.49	9.32	9.16	9.00
> 5/8" Meter		103.74	119.31	102.33	128.96	120.77	118.95	118.95	118.95	118.95	118.95	118.95	118.95
Total General Service (Public Utilities)		71.34	85.08	73.34	86.38	81.36	80.21	80.15	80.09	80.03	79.97	79.92	79.86
General Service (Excluding Senior Citizens)													
5/8" Meter		7.41	7.63	7.34	7.39	7.09	7.29	7.16	7.04	6.91	6.79	6.67	6.56
> 5/8" Meter		164.83	167.50	147.42	145.01	133.76	135.99	135.99	135.99	135.99	135.99	135.99	135.99
Total General Service (excluding SC)		10.72	11.04	10.65	10.88	10.51	10.77	10.64	10.52	10.40	10.28	10.17	10.05
General Service (Including Senior Citizens)													
5/8" Meter		7.34	7.55	7.27	7.32	7.02	7.21	7.08	6.96	6.84	6.71	6.60	6.49
> 5/8" Meter		164.78	167.44	147.37	144.97	133.72	135.96	135.96	135.96	135.96	135.96	135.96	135.96
Total General Service (including SC)		10.51	10.82	10.44	10.66	10.28	10.53	10.41	10.29	10.17	10.05	9.94	9.83
PHA		29.16	28.28	28.34	30.95	29.04	29.57	29.57	29.57	29.57	29.57	29.57	29.57
Charities & Schools		81.66	83.05	81.04	76.31	73.83	77.66	77.66	77.66	77.66	77.66	77.66	77.66
Hospital/University		771.64	717.48	699.52	632.77	706.13	682.70	682.70	682.70	682.70	682.70	682.70	682.70
Hand Bill		2,003.77	2,127.09	2,066.03	2,014.76	1,841.03	1,763.27	1,763.27	1,763.27	1,763.27	1,763.27	1,763.27	1,763.27
Scheduled		5.75	7.80	11.00	10.35	5.33	8.00	8.00	8.00	8.00	8.00	8.00	8.00
xxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		121.36	116.03	36.93	36.01	83.03	58.44	58.44	58.44	58.44	58.44	58.44	58.44
Sewer Only		901.47	1,240.45	1,299.18	1,065.20	1,085.66	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Groundwater (Non-City)		39,901.83	32,279.72	31,574.38	69,146.70	70,561.33	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00	70,000.00
xxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Total		13.18	13.56	13.17	13.61	12.99	13.17	13.06	12.94	12.82	12.70	12.59	12.48

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Billed Volume Per Account Growth													Customer - 13A
Annual Growth													
Senior Citizens													
5/8" Meter		-3.76%	3.13%	-1.60%	1.98%	-4.11%	1.69%	-1.79%	-1.82%	-1.67%	-1.70%	-1.73%	-1.76%
> 5/8" Meter		17.08%	-3.25%	-33.79%	-21.67%	-12.77%	8.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-3.75%	3.14%	-1.62%	1.97%	-4.11%	1.69%	-1.79%	-1.82%	-1.67%	-1.70%	-1.73%	-1.76%
General Service (Residential)													
5/8" Meter		#N/A	2.89%	-3.90%	0.28%	-4.09%	2.94%	-1.72%	-1.75%	-1.78%	-1.81%	-1.69%	-1.72%
> 5/8" Meter		#N/A	-2.59%	-19.80%	-14.34%	-17.52%	8.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	2.63%	-3.96%	-0.01%	-4.10%	3.52%	-1.52%	-1.54%	-1.57%	-1.59%	-1.48%	-1.51%
General Service (Commercial)													
5/8" Meter		#N/A	2.34%	-3.22%	3.45%	-3.60%	1.70%	-1.75%	-1.78%	-1.72%	-1.75%	-1.78%	-1.72%
> 5/8" Meter		#N/A	3.16%	-8.33%	4.02%	-2.47%	0.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	2.59%	-4.91%	5.66%	-1.38%	0.54%	-0.37%	-0.37%	-0.36%	-0.36%	-0.36%	-0.34%
General Service (Industrial)													
5/8" Meter		#N/A	0.99%	-0.41%	9.78%	-4.64%	0.10%	-1.80%	-1.74%	-1.77%	-1.80%	-1.74%	-1.77%
> 5/8" Meter		#N/A	2.00%	-6.29%	0.53%	8.07%	-4.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	-1.87%	-2.38%	1.48%	7.23%	-4.04%	-0.12%	-0.12%	-0.12%	-0.12%	-0.11%	-0.11%
General Service (Public Utilities)													
5/8" Meter		#N/A	10.97%	-15.84%	-21.69%	10.63%	0.84%	-1.70%	-1.73%	-1.76%	-1.79%	-1.72%	-1.75%
> 5/8" Meter		#N/A	15.01%	-14.24%	26.03%	-6.35%	-1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	19.26%	-13.80%	17.79%	-5.82%	-1.40%	-0.08%	-0.08%	-0.08%	-0.08%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-6.82%	2.92%	-3.76%	0.66%	-4.09%	2.81%	-1.72%	-1.75%	-1.78%	-1.81%	-1.70%	-1.72%
> 5/8" Meter		-22.39%	1.62%	-11.99%	-1.64%	-7.76%	1.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-14.58%	3.02%	-3.58%	2.17%	-3.38%	2.42%	-1.14%	-1.15%	-1.16%	-1.17%	-1.09%	-1.10%
General Service (Including Senior Citizens)													
5/8" Meter		-6.72%	2.89%	-3.70%	0.65%	-4.13%	2.77%	-1.73%	-1.76%	-1.77%	-1.80%	-1.70%	-1.72%
> 5/8" Meter		-22.39%	1.61%	-11.99%	-1.63%	-7.76%	1.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-14.35%	2.95%	-3.56%	2.07%	-3.47%	2.40%	-1.15%	-1.16%	-1.17%	-1.18%	-1.11%	-1.12%
PHA		-4.68%	-3.02%	0.20%	9.22%	-6.16%	1.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charities & Schools		-50.56%	1.70%	-2.41%	-5.84%	-3.25%	5.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	-7.02%	-2.50%	-9.54%	11.59%	-3.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	6.15%	-2.87%	-2.48%	-8.62%	-4.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	35.65%	41.03%	-5.91%	-48.47%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		20.02%	-4.39%	-68.17%	-2.48%	130.53%	-29.61%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Only		-62.28%	37.60%	4.74%	-18.01%	1.92%	-7.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	-19.10%	-2.19%	119.00%	2.05%	-0.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	2.83%	-2.82%	3.28%	-4.55%	1.44%	-0.90%	-0.91%	-0.91%	-0.92%	-0.86%	-0.86%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2-Year Average Growth													
Senior Citizens													
5/8" Meter		-1.22%	-0.38%	0.74%	0.18%	-1.11%	-1.25%	-0.06%	-1.80%	-1.74%	-1.68%	-1.71%	-1.74%
> 5/8" Meter		0.36%	6.43%	-19.96%	-27.98%	-17.34%	-2.88%	3.99%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-1.21%	-0.36%	0.73%	0.16%	-1.12%	-1.25%	-0.06%	-1.80%	-1.74%	-1.68%	-1.71%	-1.74%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	-0.56%	-1.83%	-1.93%	-0.63%	0.58%	-1.74%	-1.77%	-1.80%	-1.75%	-1.71%
> 5/8" Meter		#N/A	#N/A	-11.61%	-17.11%	-15.95%	-5.58%	3.97%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	-0.72%	-2.01%	-2.08%	-0.36%	0.97%	-1.53%	-1.56%	-1.58%	-1.54%	-1.49%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	-0.48%	0.06%	-0.14%	-0.99%	-0.04%	-1.76%	-1.75%	-1.74%	-1.77%	-1.75%
> 5/8" Meter		#N/A	#N/A	-2.76%	-2.35%	0.72%	-1.13%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	-1.23%	0.24%	2.08%	-0.43%	0.08%	-0.37%	-0.37%	-0.36%	-0.36%	-0.35%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	0.28%	4.56%	2.31%	-2.30%	-0.86%	-1.77%	-1.76%	-1.79%	-1.77%	-1.75%
> 5/8" Meter		#N/A	#N/A	-2.23%	-2.94%	4.23%	1.68%	-2.19%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	-2.13%	-0.47%	4.31%	1.44%	-2.10%	-0.12%	-0.12%	-0.12%	-0.11%	-0.11%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	-3.36%	-18.82%	-6.92%	5.62%	-0.44%	-1.71%	-1.74%	-1.78%	-1.75%	-1.73%
> 5/8" Meter		#N/A	#N/A	-0.68%	3.97%	8.64%	-3.96%	-0.75%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	1.39%	0.76%	5.32%	-3.64%	-0.74%	-0.08%	-0.08%	-0.08%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-3.77%	-2.07%	-0.48%	-1.58%	-1.75%	-0.70%	0.52%	-1.74%	-1.76%	-1.79%	-1.76%	-1.71%
> 5/8" Meter		-12.95%	-11.19%	-5.43%	-6.96%	-4.75%	-3.16%	0.83%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-8.22%	-6.19%	-0.33%	-0.74%	-0.64%	-0.52%	0.63%	-1.14%	-1.15%	-1.16%	-1.13%	-1.10%
General Service (Including Senior Citizens)													
5/8" Meter		-3.69%	-2.03%	-0.46%	-1.55%	-1.77%	-0.74%	0.50%	-1.74%	-1.76%	-1.79%	-1.75%	-1.71%
> 5/8" Meter		-12.95%	-11.20%	-5.43%	-6.95%	-4.74%	-3.16%	0.83%	0.00%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-8.08%	-6.10%	-0.36%	-0.78%	-0.74%	-0.58%	0.61%	-1.16%	-1.17%	-1.17%	-1.15%	-1.11%
PHA		-3.14%	-3.85%	-1.42%	4.61%	1.24%	-2.25%	0.91%	0.00%	0.00%	0.00%	0.00%	0.00%
Charities & Schools		-27.52%	-29.09%	-0.38%	-4.14%	-4.55%	0.88%	2.56%	0.00%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	-4.79%	-6.09%	0.47%	3.87%	-1.67%	0.00%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	1.54%	-2.68%	-5.60%	-6.45%	-2.13%	0.00%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	38.31%	15.19%	-30.37%	-12.08%	22.47%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		-26.33%	7.12%	-44.84%	-44.29%	49.94%	27.39%	-16.10%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Only		-48.08%	-27.96%	20.05%	-7.33%	-8.59%	-3.11%	-4.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	#N/A	-11.04%	46.36%	49.49%	0.62%	-0.40%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	-0.04%	0.19%	-0.71%	-1.60%	0.26%	-0.91%	-0.91%	-0.92%	-0.89%	-0.86%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3-Year Average Growth													
Senior Citizens													
5/8" Meter		-1.50%	0.21%	-0.78%	1.15%	-1.27%	-0.19%	-1.43%	-0.65%	-1.76%	-1.73%	-1.70%	-1.73%
> 5/8" Meter		6.52%	-0.86%	-9.14%	-20.54%	-23.23%	-9.59%	-1.93%	2.64%	0.00%	0.00%	0.00%	0.00%
Total Senior Citizens		-1.49%	0.22%	-0.78%	1.14%	-1.29%	-0.19%	-1.43%	-0.65%	-1.76%	-1.73%	-1.70%	-1.73%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	-0.28%	-2.59%	-0.33%	-1.00%	-0.20%	-1.75%	-1.78%	-1.76%	-1.74%
> 5/8" Meter		#N/A	#N/A	#N/A	-12.53%	-17.25%	-8.59%	-3.75%	2.63%	0.00%	0.00%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	-0.48%	-2.71%	-0.25%	-0.75%	0.12%	-1.54%	-1.57%	-1.55%	-1.53%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	0.81%	-1.17%	0.47%	-1.24%	-0.62%	-1.75%	-1.75%	-1.75%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	-0.55%	-2.39%	0.56%	-0.75%	0.08%	0.00%	0.00%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	1.01%	-0.31%	1.56%	-0.41%	-0.07%	-0.37%	-0.36%	-0.36%	-0.35%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	3.35%	1.40%	1.57%	-2.13%	-1.15%	-1.77%	-1.77%	-1.77%	-1.77%
> 5/8" Meter		#N/A	#N/A	#N/A	-1.32%	0.60%	1.30%	1.12%	-1.46%	0.00%	0.00%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	-0.94%	2.03%	1.45%	0.92%	-1.44%	-0.12%	-0.12%	-0.11%	-0.11%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	-9.90%	-9.99%	-4.40%	3.12%	-0.87%	-1.73%	-1.76%	-1.76%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	7.52%	0.41%	5.15%	-2.66%	-0.50%	0.00%	0.00%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	6.59%	-1.48%	3.03%	-2.46%	-0.52%	-0.08%	-0.08%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-4.49%	-1.59%	-2.64%	-0.10%	-2.42%	-0.25%	-1.04%	-0.24%	-1.75%	-1.78%	-1.76%	-1.74%
> 5/8" Meter		-10.04%	-8.34%	-11.46%	-4.18%	-7.22%	-2.65%	-2.12%	0.55%	0.00%	0.00%	0.00%	0.00%
Total General Service (excluding SC)		-7.26%	-4.62%	-5.33%	0.49%	-1.63%	0.37%	-0.73%	0.03%	-1.15%	-1.16%	-1.14%	-1.12%
General Service (Including Senior Citizens)													
5/8" Meter		-4.40%	-1.55%	-2.59%	-0.09%	-2.42%	-0.28%	-1.07%	-0.26%	-1.75%	-1.78%	-1.76%	-1.74%
> 5/8" Meter		-10.04%	-8.35%	-11.46%	-4.18%	-7.22%	-2.65%	-2.12%	0.55%	0.00%	0.00%	0.00%	0.00%
Total General Service (including SC)		-7.16%	-4.54%	-5.26%	0.45%	-1.69%	0.30%	-0.77%	0.01%	-1.16%	-1.17%	-1.15%	-1.14%
PHA		-4.04%	-3.10%	-2.52%	2.00%	0.89%	1.43%	-1.51%	0.60%	0.00%	0.00%	0.00%	0.00%
Charities & Schools		-22.60%	-18.86%	-21.13%	-2.23%	-3.85%	-1.41%	0.59%	1.70%	0.00%	0.00%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	-6.40%	-0.53%	-0.81%	2.56%	-1.12%	0.00%	0.00%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	0.18%	-4.70%	-5.14%	-4.35%	-1.43%	0.00%	0.00%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	21.64%	-11.90%	-10.07%	-8.23%	14.47%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		93.04%	-19.64%	-28.52%	-33.30%	-10.56%	16.53%	17.51%	-11.05%	0.00%	0.00%	0.00%	0.00%
Sewer Only		611.92%	-28.15%	-18.39%	5.72%	-4.35%	-8.35%	-2.08%	-2.70%	0.00%	0.00%	0.00%	0.00%
Groundwater (Non-City)		#N/A	#N/A	#N/A	20.11%	29.78%	30.39%	0.41%	-0.27%	0.00%	0.00%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	1.06%	-1.42%	0.00%	-1.37%	-0.13%	-0.91%	-0.91%	-0.90%	-0.88%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
5-Year Average Growth													
Senior Citizens													
5/8" Meter		-1.49%	-1.13%	-0.61%	0.20%	-0.92%	0.18%	-0.79%	-0.84%	-1.56%	-1.06%	-1.74%	-1.73%
> 5/8" Meter		13.91%	16.91%	-4.99%	-12.76%	-12.51%	-13.89%	-13.32%	-5.87%	-1.16%	1.58%	0.00%	0.00%
Total Senior Citizens		-1.48%	-1.13%	-0.61%	0.19%	-0.92%	0.18%	-0.80%	-0.84%	-1.56%	-1.06%	-1.74%	-1.73%
General Service (Residential)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.42%	-1.33%	-0.89%	-1.31%	-0.84%	-1.75%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-9.81%	-9.34%	-5.25%	-2.27%	1.57%	0.00%	0.00%
Total General Service (Residential)		#N/A	#N/A	#N/A	#N/A	#N/A	-0.43%	-1.25%	-0.76%	-1.07%	-0.56%	-1.54%	-1.54%
General Service (Commercial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	0.09%	-0.72%	-0.43%	-1.45%	-1.07%	-1.76%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.78%	-1.40%	0.33%	-0.45%	0.05%	0.00%	0.00%
Total General Service (Commercial)		#N/A	#N/A	#N/A	#N/A	#N/A	0.44%	-0.15%	0.78%	-0.39%	-0.19%	-0.36%	-0.36%
General Service (Industrial)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	1.05%	0.49%	0.22%	-1.98%	-1.41%	-1.77%	-1.76%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-0.13%	-0.53%	0.78%	0.67%	-0.88%	0.00%	0.00%
Total General Service (Industrial)		#N/A	#N/A	#N/A	#N/A	#N/A	0.00%	0.36%	0.82%	0.50%	-0.91%	-0.12%	-0.11%
General Service (Public Utilities)													
5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	-3.99%	-6.29%	-3.34%	1.15%	-1.23%	-1.74%	-1.75%
> 5/8" Meter		#N/A	#N/A	#N/A	#N/A	#N/A	2.77%	-0.06%	3.06%	-1.60%	-0.30%	0.00%	0.00%
Total General Service (Public Utilities)		#N/A	#N/A	#N/A	#N/A	#N/A	2.37%	-1.19%	1.78%	-1.52%	-0.34%	-0.07%	-0.07%
General Service (Excluding Senior Citizens)													
5/8" Meter		-3.90%	-3.86%	-2.91%	-1.58%	-2.28%	-0.34%	-1.26%	-0.85%	-1.33%	-0.87%	-1.75%	-1.75%
> 5/8" Meter		-5.95%	-6.43%	-8.22%	-7.79%	-8.83%	-3.77%	-4.08%	-1.60%	-1.28%	0.33%	0.00%	0.00%
Total General Service (excluding SC)		-5.49%	-5.45%	-4.55%	-3.09%	-3.48%	0.09%	-0.73%	-0.24%	-0.90%	-0.45%	-1.14%	-1.13%
General Service (Including Senior Citizens)													
5/8" Meter		-3.82%	-3.79%	-2.85%	-1.55%	-2.26%	-0.35%	-1.26%	-0.87%	-1.35%	-0.87%	-1.75%	-1.75%
> 5/8" Meter		-5.95%	-6.44%	-8.22%	-7.79%	-8.83%	-3.77%	-4.08%	-1.60%	-1.28%	0.33%	0.00%	0.00%
Total General Service (including SC)		-5.41%	-5.39%	-4.49%	-3.06%	-3.48%	0.03%	-0.78%	-0.29%	-0.93%	-0.46%	-1.15%	-1.15%
PHA		-2.45%	-3.69%	-3.00%	-0.09%	-1.03%	0.28%	0.90%	0.86%	-0.91%	0.36%	0.00%	0.00%
Charities & Schools		-12.22%	-13.84%	-14.38%	-13.26%	-14.88%	-1.00%	-1.33%	-0.85%	0.35%	1.02%	0.00%	0.00%
Hospital/University		#N/A	#N/A	#N/A	#N/A	#N/A	-2.42%	-0.99%	-0.49%	1.53%	-0.67%	0.00%	0.00%
Hand Bill		#N/A	#N/A	#N/A	#N/A	#N/A	-2.52%	-3.68%	-3.12%	-2.63%	-0.86%	0.00%	0.00%
Scheduled		#N/A	#N/A	#N/A	#N/A	#N/A	6.83%	0.51%	-6.17%	-5.02%	8.45%	0.00%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Fire Service		58.07%	62.30%	16.96%	-30.59%	-3.86%	-13.60%	-12.82%	9.61%	10.17%	-6.78%	0.00%	0.00%
Sewer Only		-15.89%	-18.25%	249.30%	-20.45%	-14.60%	2.10%	-4.22%	-5.10%	-1.26%	-1.63%	0.00%	0.00%
Groundwater (Non-City)		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	11.90%	16.74%	17.26%	0.25%	-0.16%	0.00%
xxxxxxxxxx		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total		#N/A	#N/A	#N/A	#N/A	#N/A	-0.01%	-0.75%	-0.36%	-1.19%	-0.45%	-0.90%	-0.89%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Existing Rates													Customer - 14
Actual Rate													
Service Charge (\$/bill)													
5/8"		4.41	6.30	6.36	6.55	6.55	7.17	7.41	7.41	7.41	7.41	7.41	7.41
3/4"		15.21	7.72	7.81	8.04	8.04	8.76	9.08	9.08	9.08	9.08	9.08	9.08
1"		23.55	10.89	11.05	11.39	11.39	12.34	12.84	12.84	12.84	12.84	12.84	12.84
1 1/4"		34.30	14.92	15.16	15.64	15.64	16.87	17.61	17.61	17.61	17.61	17.61	17.61
1 1/2"		43.92	18.32	18.63	19.24	19.24	20.68	21.63	21.63	21.63	21.63	21.63	21.63
2"		68.92	27.86	28.35	29.31	29.31	31.41	32.90	32.90	32.90	32.90	32.90	32.90
3"		126.64	49.41	50.34	52.07	52.07	55.65	58.40	58.40	58.40	58.40	58.40	58.40
4"		213.19	84.67	86.21	89.15	89.15	95.42	100.05	100.05	100.05	100.05	100.05	100.05
6"		423.20	165.86	168.95	174.77	174.77	186.85	196.03	196.03	196.03	196.03	196.03	196.03
8"		673.29	261.21	266.14	275.38	275.38	294.17	308.78	308.78	308.78	308.78	308.78	308.78
10"		969.86	377.67	384.75	398.07	398.07	425.36	446.41	446.41	446.41	446.41	446.41	446.41
12"		1,787.53	678.16	691.38	715.77	715.77	763.12	801.99	801.99	801.99	801.99	801.99	801.99
14"		-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge (\$/Mcf)													
0 - 2 Mcf		22.14	24.74	26.19	28.07	28.07	30.55	32.46	32.46	32.46	32.46	32.46	32.46
2 - 100 Mcf		22.14	24.74	26.19	28.07	28.07	30.55	32.46	32.46	32.46	32.46	32.46	32.46
100 - 2,000 Mcf		22.14	24.74	26.19	28.07	28.07	30.55	32.46	32.46	32.46	32.46	32.46	32.46
Over 2,000 Mcf		22.14	24.74	26.19	28.07	28.07	30.55	32.46	32.46	32.46	32.46	32.46	32.46
Groundwater Volume Charge (\$/Mcf)		8.98	9.66	10.13	10.76	10.76	11.31	11.93	11.93	11.93	11.93	11.93	11.93
Effective Rate													
Effective Months													
Service Charge		12.00	6.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Volume Charge		11.50	5.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Service Charge (\$/bill)													
5/8"		4.41	5.36	6.36	6.55	6.55	7.17	7.41	7.41	7.41	7.41	7.41	7.41
3/4"		15.21	11.47	7.81	8.04	8.04	8.76	9.08	9.08	9.08	9.08	9.08	9.08
1"		23.55	17.22	11.05	11.39	11.39	12.34	12.84	12.84	12.84	12.84	12.84	12.84
1 1/4"		34.30	24.61	15.16	15.64	15.64	16.87	17.61	17.61	17.61	17.61	17.61	17.61
1 1/2"		43.92	31.12	18.63	19.24	19.24	20.68	21.63	21.63	21.63	21.63	21.63	21.63
2"		68.92	48.39	28.35	29.31	29.31	31.41	32.90	32.90	32.90	32.90	32.90	32.90
3"		126.64	88.03	50.34	52.07	52.07	55.65	58.40	58.40	58.40	58.40	58.40	58.40
4"		213.19	148.93	86.21	89.15	89.15	95.42	100.05	100.05	100.05	100.05	100.05	100.05
6"		423.20	294.53	168.95	174.77	174.77	186.85	196.03	196.03	196.03	196.03	196.03	196.03
8"		673.29	467.25	266.14	275.38	275.38	294.17	308.78	308.78	308.78	308.78	308.78	308.78
10"		969.86	673.77	384.75	398.07	398.07	425.36	446.41	446.41	446.41	446.41	446.41	446.41
12"		1,787.53	1,232.85	691.38	715.77	715.77	763.12	801.99	801.99	801.99	801.99	801.99	801.99
14"		-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge (\$/Mcf)													
0 - 2 Mcf		22.25	23.33	26.13	27.99	28.07	30.45	32.38	32.46	32.46	32.46	32.46	32.46
2 - 100 Mcf		22.25	23.33	26.13	27.99	28.07	30.45	32.38	32.46	32.46	32.46	32.46	32.46
100 - 2,000 Mcf		22.25	23.33	26.13	27.99	28.07	30.45	32.38	32.46	32.46	32.46	32.46	32.46
Over 2,000 Mcf		22.25	23.33	26.13	27.99	28.07	30.45	32.38	32.46	32.46	32.46	32.46	32.46
Groundwater Volume Charge (\$/Mcf)		9.01	9.29	10.11	10.73	10.76	11.29	11.90	11.93	11.93	11.93	11.93	11.93

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Calculated Billings (prior to adjustment factor)												Customer - 15	
Senior Citizens													
5/8" Meter		2,533	2,851	3,269	3,621	3,737	4,111	4,279	4,234	4,187	4,140	4,093	4,046
> 5/8" Meter		2	2	1	1	1	1	1	1	1	1	1	1
Total Senior Citizens		2,534	2,853	3,270	3,622	3,738	4,112	4,280	4,235	4,188	4,141	4,094	4,048
General Service (Residential)													
5/8" Meter		89,797	96,606	106,796	111,525	110,321	122,478	127,602	126,225	124,625	123,025	121,558	120,091
> 5/8" Meter		9,876	9,694	10,179	10,691	10,778	12,546	13,322	13,352	13,352	13,352	13,352	13,352
Total General Service (Residential)		99,673	106,300	116,975	122,216	121,099	135,023	140,924	139,578	137,978	136,377	134,910	133,443
General Service (Commercial)													
5/8" Meter		8,553	9,284	10,455	11,383	11,090	12,215	12,736	12,578	12,404	12,231	12,057	11,893
> 5/8" Meter		30,292	30,234	31,303	35,588	35,710	38,786	41,206	41,300	41,300	41,300	41,300	41,300
Total General Service (Commercial)		38,846	39,519	41,758	46,971	46,800	51,001	53,941	53,878	53,705	53,531	53,357	53,193
General Service (Industrial)													
5/8" Meter		158	168	190	215	206	224	233	230	227	224	221	218
> 5/8" Meter		2,238	2,037	2,204	2,353	2,527	2,628	2,792	2,799	2,799	2,799	2,799	2,799
Total General Service (Industrial)		2,396	2,206	2,394	2,568	2,733	2,852	3,026	3,029	3,026	3,023	3,020	3,017
General Service (Public Utilities)													
5/8" Meter		11	13	14	14	17	19	20	19	19	19	19	18
> 5/8" Meter		218	258	250	329	339	363	385	386	386	386	386	386
Total General Service (Public Utilities)		229	271	264	344	356	381	404	405	405	404	404	404
General Service (Excluding Senior Citizens)													
5/8" Meter		98,519	106,071	117,455	123,137	121,634	134,935	140,590	139,053	137,276	135,498	133,854	132,220
> 5/8" Meter		42,625	42,224	43,936	48,962	49,355	54,323	57,705	57,837	57,837	57,837	57,837	57,837
Total General Service (excluding SC)		141,144	148,295	161,391	172,099	170,989	189,258	198,295	196,890	195,113	193,335	191,691	190,057
General Service (Including Senior Citizens)													
5/8" Meter		101,052	108,922	120,724	126,758	125,371	139,046	144,869	143,287	141,463	139,639	137,948	136,266
> 5/8" Meter		42,627	42,226	43,937	48,963	49,356	54,324	57,706	57,838	57,838	57,838	57,838	57,838
Total General Service (including SC)		143,678	151,148	164,661	175,721	174,726	193,370	202,575	201,125	199,301	197,477	195,786	194,104
PHA		4,309	4,237	4,639	5,268	4,865	5,365	5,691	5,704	5,704	5,704	5,704	5,704
Charities & Schools		4,952	4,732	4,740	4,601	4,346	4,919	5,221	5,232	5,232	5,232	5,232	5,232
Hospital/University		5,041	4,962	5,366	5,994	6,598	6,925	7,360	7,378	7,378	7,378	7,378	7,378
Hand Bill		12,672	12,685	13,935	14,154	12,726	13,227	14,063	14,097	14,097	14,097	14,097	14,097
Scheduled		0	0	1	1	1	1	1	1	1	1	1	1
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		240	230	78	75	179	137	146	146	146	146	146	146
Sewer Only		746	1,354	2,021	1,989	2,371	2,371	2,521	2,527	2,527	2,527	2,527	2,527
Groundwater (Non-City)		1,438	1,500	1,596	2,969	2,278	2,370	2,500	2,505	2,505	2,505	2,505	2,505
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Total		173,077	180,848	197,038	210,771	208,090	228,686	240,079	238,716	236,892	235,067	233,377	231,695

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Retail - Billings Under Existing Rates													Customer - 16
Senior Citizens													
5/8" Meter		2,533	2,851	3,269	3,621	3,737	4,111	4,279	4,234	4,187	4,140	4,093	4,046
> 5/8" Meter		2	2	1	1	1	1	1	1	1	1	1	1
Total Senior Citizens		2,534	2,853	3,270	3,622	3,738	4,112	4,280	4,235	4,188	4,141	4,094	4,048
General Service (Residential)													
5/8" Meter		89,797	96,606	106,796	111,525	110,321	122,478	127,602	126,225	124,625	123,025	121,558	120,091
> 5/8" Meter		9,876	9,694	10,179	10,691	10,778	12,546	13,322	13,352	13,352	13,352	13,352	13,352
Total General Service (Residential)		99,673	106,300	116,975	122,216	121,099	135,023	140,924	139,578	137,978	136,377	134,910	133,443
General Service (Commercial)													
5/8" Meter		8,553	9,284	10,455	11,383	11,090	12,215	12,736	12,578	12,404	12,231	12,057	11,893
> 5/8" Meter		30,292	30,234	31,303	35,588	35,710	38,786	41,206	41,300	41,300	41,300	41,300	41,300
Total General Service (Commercial)		38,846	39,519	41,758	46,971	46,800	51,001	53,941	53,878	53,705	53,531	53,357	53,193
General Service (Industrial)													
5/8" Meter		158	168	190	215	206	224	233	230	227	224	221	218
> 5/8" Meter		2,238	2,037	2,204	2,353	2,527	2,628	2,792	2,799	2,799	2,799	2,799	2,799
Total General Service (Industrial)		2,396	2,206	2,394	2,568	2,733	2,852	3,026	3,029	3,026	3,023	3,020	3,017
General Service (Public Utilities)													
5/8" Meter		11	13	14	14	17	19	20	19	19	19	19	18
> 5/8" Meter		218	258	250	329	339	363	385	386	386	386	386	386
Total General Service (Public Utilities)		229	271	264	344	356	381	404	405	405	404	404	404
General Service (Excluding Senior Citizens)													
5/8" Meter		98,519	106,071	117,455	123,137	121,634	134,935	140,590	139,053	137,276	135,498	133,854	132,220
> 5/8" Meter		42,625	42,224	43,936	48,962	49,355	54,323	57,705	57,837	57,837	57,837	57,837	57,837
Total General Service (excluding SC)		141,144	148,295	161,391	172,099	170,989	189,258	198,295	196,890	195,113	193,335	191,691	190,057
General Service (Including Senior Citizens)													
5/8" Meter		101,052	108,922	120,724	126,758	125,371	139,046	144,869	143,287	141,463	139,639	137,948	136,266
> 5/8" Meter		42,627	42,226	43,937	48,963	49,356	54,324	57,706	57,838	57,838	57,838	57,838	57,838
Total General Service (including SC)		143,678	151,148	164,661	175,721	174,726	193,370	202,575	201,125	199,301	197,477	195,786	194,104
PHA		4,309	4,237	4,639	5,268	4,865	5,365	5,691	5,704	5,704	5,704	5,704	5,704
Charities & Schools		4,952	4,732	4,740	4,601	4,346	4,919	5,221	5,232	5,232	5,232	5,232	5,232
Hospital/University		5,041	4,962	5,366	5,994	6,598	6,925	7,360	7,377	7,377	7,377	7,377	7,377
Hand Bill		12,672	12,685	13,935	14,154	12,726	13,227	14,063	14,097	14,097	14,097	14,097	14,097
Scheduled		0	0	1	1	1	1	1	1	1	1	1	1
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Service		240	230	78	75	179	137	146	146	146	146	146	146
Sewer Only		746	1,354	2,021	1,989	2,371	2,371	2,521	2,527	2,527	2,527	2,527	2,527
Groundwater (non-City)		1,438	1,500	1,596	2,969	2,278	2,370	2,500	2,505	2,505	2,505	2,505	2,505
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Total		173,077	180,848	197,038	210,771	208,090	228,685	240,079	238,716	236,891	235,067	233,376	231,694
Total Excluding xxxxxxxxxxxx & Fire		172,836	180,618	196,960	210,696	207,910	228,548	239,933	238,569	236,745	234,921	233,230	231,548

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Retail - Collections													Customer - 17
Total General Service Billings Excluding xxxxxxxxxx & Fire		164,994	173,209	188,575	202,787	200,628							
Total General Service Billings Excluding Fire		172,836	180,618	196,960	210,696	207,910	228,548	239,933	238,569	236,745	234,921	233,230	231,548
Collection Factors													
Current Year		84.71%	84.76%	86.14%	87.02%	86.88%	85.90%	85.90%	85.90%	85.90%	85.90%	85.90%	85.90%
First Year Prior		9.08%	9.67%	9.80%	8.61%	8.24%	9.08%	9.08%	9.08%	9.08%	9.08%	9.08%	9.08%
Second Year Prior		1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
Collections							Calculated						
General Service		Actual 185,078	Actual 197,460	Actual 211,417	Actual 225,485	Actual 222,408	218,488	230,098	230,282	228,769	227,015	225,369	223,742
xxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire Protection		267	214	100	-	-	137	146	146	146	146	146	146
Total		185,345	197,674	211,517	225,485	222,408	218,625	230,244	230,428	228,915	227,161	225,515	223,888
General Service Calculated		160,048	165,493	181,987	203,124	201,066	218,488	230,098	230,282	228,769	227,015	174,942	223,742
Actual		185,078	197,460	211,417	225,485	222,408	-	-	-	-	-	-	-
Ratio		86.5%	83.8%	86.1%	90.1%	90.4%							
General Service + xxxxxxxxxx Calculated		160,048	165,493	181,987	203,124	201,066	218,488	230,098	230,282	228,769	227,015	174,942	223,742
Actual		185,078	197,460	211,417	225,485	222,408							
Ratio		86.5%	83.8%	86.1%	90.1%	90.4%							
Collections - Detail													
Senior Citizens							3,928	4,108	4,091	4,049	4,004	3,958	3,913
General Service (Residential)							128,887	135,203	134,800	133,395	131,854	130,423	129,005
General Service (Commercial)							48,792	51,697	51,975	51,866	51,700	51,532	51,373
General Service (Industrial)							2,738	2,901	2,921	2,922	2,919	2,916	2,913
General Service (Public Utilities)							365	388	391	391	390	390	390
PHA							5,133	5,452	5,500	5,506	5,506	5,506	5,506
Charities & Schools							4,692	4,999	5,045	5,051	5,051	5,051	5,051
Hospital/University							6,641	7,054	7,114	7,122	7,122	7,122	7,122
Hand Bill							12,738	13,480	13,593	13,609	13,609	13,609	13,609
Scheduled							1	1	1	1	1	1	1
xxxxxxx							-	-	-	-	-	-	-
xxxxxxx							-	-	-	-	-	-	-
Fire Service							137	146	146	146	146	146	146
Sewer Only							2,283	2,418	2,437	2,440	2,440	2,440	2,440
Groundwater (non-City)							2,289	2,398	2,416	2,419	2,419	2,419	2,419
xxxxxxx							-	-	-	-	-	-	-
Total		-	-	-	-	-	218,625	230,244	230,428	228,915	227,161	225,515	223,888

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Surcharge													Customer - 18
Surcharge Accounts		246	217	204	198	180	180	180	180	180	180	180	180
Account Growth		10	(29)	(13)	(6)	(18)	-	-	-	-	-	-	-
Billed lbs													
BOD		13,037,238	14,992,079	14,102,589	15,302,981	15,302,981	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000
SS		2,834,636	3,691,430	2,030,223	1,829,290	1,829,290	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000	2,340,000
lbs per Account													
BOD		52,997	69,088	69,130	77,190	85,017	64,000	64,000	64,000	64,000	64,000	64,000	64,000
SS		11,523	17,011	9,952	9,227	10,163	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Rate (\$/lb)													
BOD		0.322	0.310	0.327	0.350	0.350	0.350	0.372	0.372	0.372	0.372	0.372	0.372
SS		0.310	0.292	0.310	0.332	0.332	0.369	0.393	0.393	0.393	0.393	0.393	0.393
Surcharge Revenue													
BOD		4,197	4,648	4,612	5,356	5,356	4,032	4,285	4,285	4,285	4,285	4,285	4,285
SS		880	1,078	629	607	607	863	920	920	920	920	920	920
Total		5,077	5,726	5,241	5,963	5,963	4,895	5,205	5,205	5,205	5,205	5,205	5,205
Actual - Input		5,110	5,656	4,252	3,407	7,375	-						

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer - Wholesale													Customer - 19
Abington													
Rates													
Volume (\$/Mcf)		1.7154	1.3415	1.4676	1.5385	1.5385	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)		8,007	8,712	9,378	9,591	9,591	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)		204.1477	160.6960	176.9354	186.3307	186.3307	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)		217.9484	176.7907	192.5663	201.1057	201.1057	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)		498,000	503,000	503,000	503,000	503,000	595,000	595,000	595,000	595,000	595,000	595,000	595,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		114,622	97,815	102,068	100,091	95,757	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Capacity (cfs)		9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247
SS (1,000 lbs.)		1,311	1,119	1,167	1,068	963	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BOD (1,000 lbs.)		1,109	949	989	1,295	1,498	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Billings													
Volume		196,623	131,219	149,794	153,989	147,322	156,545	159,769	159,769	159,769	159,769	159,769	159,769
Capacity		74,041	80,560	86,718	88,688	88,688	110,270	113,692	113,692	113,692	113,692	113,692	113,692
SS		267,560	179,774	206,535	198,964	179,468	216,665	223,875	223,875	223,875	223,875	223,875	223,875
BOD		241,752	167,735	190,519	260,357	301,276	338,734	350,397	350,397	350,397	350,397	350,397	350,397
Lump Sum		498,000	503,000	503,000	503,000	503,000	595,000	595,000	595,000	595,000	595,000	595,000	595,000
Management Fee		127,798	106,229	113,657	120,500	121,975	170,066	173,128	173,128	173,128	173,128	173,128	173,128
Total		1,405,774	1,168,516	1,250,224	1,325,499	1,341,730	1,587,281	1,615,862	1,615,862	1,615,862	1,615,862	1,615,862	1,615,862
Bensalem													
Rates													
Volume (\$/Mcf)		1.7154	1.3415	1.4676	1.5385	1.5385	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)		8,007	8,712	9,378	9,591	9,591	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)		204.1477	160.6960	176.9354	186.3307	186.3307	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)		217.9484	176.7907	192.5663	201.1057	201.1057	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)		85,000	93,000	93,000	93,000	93,000	91,000	91,000	91,000	91,000	91,000	91,000	91,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		178,606	170,990	180,864	171,935	165,636	170,000	170,000	170,000	170,000	170,000	170,000	170,000
Capacity (cfs)		11.740	11.740	11.740	11.740	11.740	11.740	11.740	11.740	11.740	11.740	11.740	11.740
SS (1,000 lbs.)		2,212	2,316	2,204	2,189	2,302	2,250	2,250	2,250	2,250	2,250	2,250	2,250
BOD (1,000 lbs.)		2,263	2,218	2,525	2,697	2,754	2,700	2,700	2,700	2,700	2,700	2,700	2,700
Billings													
Volume		306,380	229,383	265,436	264,521	254,831	271,558	277,151	277,151	277,151	277,151	277,151	277,151
Capacity		94,002	102,279	110,098	112,598	112,598	140,000	144,343	144,343	144,343	144,343	144,343	144,343
SS		451,543	372,098	389,985	407,878	428,859	487,496	503,719	503,719	503,719	503,719	503,719	503,719
BOD		493,171	392,054	486,157	542,362	553,885	653,274	675,766	675,766	675,766	675,766	675,766	675,766
Lump Sum		85,000	93,000	93,000	93,000	93,000	91,000	91,000	91,000	91,000	91,000	91,000	91,000
Management Fee		143,010	118,881	134,468	142,036	144,317	164,333	169,198	169,198	169,198	169,198	169,198	169,198
Total		1,573,106	1,307,695	1,479,143	1,562,395	1,587,491	1,807,660	1,861,178	1,861,178	1,861,178	1,861,178	1,861,178	1,861,178

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bucks County													
Rates													
Volume (\$/Mcf)		1.7154	1.3415	1.4676	1.5385	1.5385	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)		8,007	8,712	9,378	9,591	9,591	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)		204.1477	160.6960	176.9354	186.3307	186.3307	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)		217.9484	176.7907	192.5663	201.1057	201.1057	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)		66,000	185,000	185,000	185,000	185,000	564,000	564,000	814,000	814,000	814,000	814,000	814,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		953,586	815,278	945,440	846,849	777,314	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Capacity (cfs)		85,080	85,080	85,080	85,080	85,080	85,080	85,080	85,080	85,080	85,080	85,080	85,080
SS (1,000 lbs.)		7,255	7,640	9,887	11,614	10,111	10,500	10,500	10,500	10,500	10,500	10,500	10,500
BOD (1,000 lbs.)		7,921	9,024	9,067	10,732	9,852	9,900	9,900	9,900	9,900	9,900	9,900	9,900
Billings													
Volume		1,635,781	1,093,696	1,387,528	1,302,877	1,195,898	1,277,920	1,304,240	1,304,240	1,304,240	1,304,240	1,304,240	1,304,240
Capacity		681,236	741,217	797,880	816,002	816,002	1,014,579	1,046,059	1,046,059	1,046,059	1,046,059	1,046,059	1,046,059
SS		1,481,030	1,227,774	1,749,438	2,164,110	1,883,902	2,274,981	2,350,690	2,350,690	2,350,690	2,350,690	2,350,690	2,350,690
BOD		1,726,376	1,595,306	1,746,010	2,158,341	1,981,324	2,395,337	2,477,810	2,477,810	2,477,810	2,477,810	2,477,810	2,477,810
Lump Sum		66,000	185,000	185,000	185,000	185,000	564,000	564,000	814,000	814,000	814,000	814,000	814,000
Management Fee		559,042	484,299	586,586	662,633	606,213	752,682	774,280	799,280	799,280	799,280	799,280	799,280
Total		6,149,465	5,327,292	6,452,442	7,288,963	6,668,339	8,279,499	8,517,078	8,792,078	8,792,078	8,792,078	8,792,078	8,792,078
Cheltenham													
Rates													
Volume (\$/Mcf)		1.6314	1.2610	1.3815	1.4478	1.4478	1.4491	1.5290	1.5290	1.5290	1.5290	1.5290	1.5290
Capacity (\$/cfs)		3,983	4,513	4,870	4,993	4,993	6,489	6,696	6,696	6,696	6,696	6,696	6,696
SS (\$/1,000 lbs.)		204.1477	160.6960	176.9354	186.3307	186.3307	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)		217.9484	176.7907	192.5663	201.1057	201.1057	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)		1,098,000	1,119,000	1,119,000	1,119,000	1,119,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000
Management Fee (%)		12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		522,135	411,325	281,173	356,825	294,940	325,000	325,000	325,000	325,000	325,000	325,000	325,000
Capacity (cfs)		20,750	20,750	20,750	20,750	20,750	20,750	20,750	20,750	20,750	20,750	20,750	20,750
SS (1,000 lbs.)		4,461	3,600	2,522	3,135	2,582	2,800	2,800	2,800	2,800	2,800	2,800	2,800
BOD (1,000 lbs.)		3,887	3,121	2,182	2,726	2,252	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Billings													
Volume		851,811	518,681	388,441	516,612	427,014	470,958	496,925	496,925	496,925	496,925	496,925	496,925
Capacity		82,647	93,645	101,053	103,605	103,605	134,647	138,942	138,942	138,942	138,942	138,942	138,942
SS		910,657	578,476	446,223	584,232	481,123	606,662	626,851	626,851	626,851	626,851	626,851	626,851
BOD		847,268	551,794	420,206	548,260	452,858	580,688	600,681	600,681	600,681	600,681	600,681	600,681
Lump Sum		1,098,000	1,119,000	1,119,000	1,119,000	1,119,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000	1,495,000
Management Fee		454,846	343,391	296,991	344,605	310,032	394,554	403,008	403,008	403,008	403,008	403,008	403,008
Total		4,245,229	3,204,987	2,771,914	3,216,315	2,893,631	3,682,508	3,761,407	3,761,407	3,761,407	3,761,407	3,761,407	3,761,407

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Lower Moreland													
Rates													
Volume (\$/Mcf)		1.7154	1.3415	1.4676	1.5385	1.5385	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)		8,007	8,712	9,378	9,591	9,591	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)		204.1477	160.6960	176.9354	186.3307	186.3307	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)		217.9484	176.7907	192.5663	201.1057	201.1057	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)		261,000	286,000	286,000	286,000	286,000	307,000	307,000	307,000	307,000	307,000	307,000	307,000
Management Fee (%)		12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		65,732	53,690	63,271	57,771	51,038	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Capacity (cfs)		5,941	5,941	5,941	5,941	5,941	5,941	5,941	5,941	5,941	5,941	5,941	5,941
SS (1,000 lbs.)		670	548	647	593	518	600	600	600	600	600	600	600
BOD (1,000 lbs.)		504	412	486	447	389	450	450	450	450	450	450	450
Billings													
Volume		112,757	72,025	92,856	88,881	78,522	87,857	89,667	89,667	89,667	89,667	89,667	89,667
Capacity		47,570	51,758	55,715	56,980	56,980	70,846	73,045	73,045	73,045	73,045	73,045	73,045
SS		136,807	87,987	114,412	110,585	96,448	129,999	134,325	134,325	134,325	134,325	134,325	134,325
BOD		109,841	72,802	93,680	89,864	78,250	108,879	112,628	112,628	112,628	112,628	112,628	112,628
Lump Sum		261,000	286,000	286,000	286,000	286,000	307,000	307,000	307,000	307,000	307,000	307,000	307,000
Management Fee		80,157	68,469	77,120	75,877	71,544	84,550	86,000	86,000	86,000	86,000	86,000	86,000
Total		748,130	639,040	719,783	708,188	667,745	789,131	802,664	802,664	802,664	802,664	802,664	802,664
Lower Southampton													
Rates													
Volume (\$/Mcf)		1.7154	1.3415	1.4676	1.5385	1.5385	1.5974	1.6303	1.6303	1.6303	1.6303	1.6303	1.6303
Capacity (\$/cfs)		8,007	8,712	9,378	9,591	9,591	11,925	12,295	12,295	12,295	12,295	12,295	12,295
SS (\$/1,000 lbs.)		204.1477	160.6960	176.9354	186.3307	186.3307	216.6649	223.8752	223.8752	223.8752	223.8752	223.8752	223.8752
BOD (\$/1,000 lbs.)		217.9484	176.7907	192.5663	201.1057	201.1057	241.9532	250.2838	250.2838	250.2838	250.2838	250.2838	250.2838
Annual Lump Sum (\$)		64,000	1,150,000	1,254,000	1,357,000	1,357,000	1,666,000	1,780,000	1,780,000	1,780,000	1,780,000	1,780,000	1,780,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		249,789	244,778	310,188	255,404	219,604	260,000	260,000	260,000	260,000	260,000	260,000	260,000
Capacity (cfs)		15,790	15,790	15,790	15,790	15,790	15,790	15,790	15,790	15,790	15,790	15,790	15,790
SS (1,000 lbs.)		2,878	4,991	2,436	2,427	2,482	2,500	2,500	2,500	2,500	2,500	2,500	2,500
BOD (1,000 lbs.)		1,905	3,293	2,223	2,139	2,090	2,100	2,100	2,100	2,100	2,100	2,100	2,100
Billings													
Volume		428,489	328,370	455,233	392,938	337,860	415,324	423,878	423,878	423,878	423,878	423,878	423,878
Capacity		126,431	137,562	148,079	151,442	151,442	188,296	194,138	194,138	194,138	194,138	194,138	194,138
SS		587,623	801,998	431,016	452,143	462,547	541,662	559,688	559,688	559,688	559,688	559,688	559,688
BOD		415,168	582,239	428,071	430,155	420,237	508,102	525,596	525,596	525,596	525,596	525,596	525,596
Lump Sum		64,000	1,150,000	1,254,000	1,357,000	1,357,000	1,666,000	1,780,000	1,780,000	1,780,000	1,780,000	1,780,000	1,780,000
Management Fee		162,171	300,017	271,640	278,368	272,909	398,326	417,996	417,996	417,996	417,996	417,996	417,996
Total		1,783,881	3,300,187	2,988,039	3,062,046	3,001,995	3,717,710	3,901,296	3,901,296	3,901,296	3,901,296	3,901,296	3,901,296

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
DELCORA													
Rates													
Volume (\$/Mcf)		1.2821	1.1331	1.2245	1.2626	1.2626	1.3676	1.3979	1.3979	1.3979	1.3979	1.3979	1.3979
Capacity (\$/cfs)		5,635	4,907	5,262	5,365	5,365	6,090	6,258	6,258	6,258	6,258	6,258	6,258
SS (\$/1,000 lbs.)		214.6076	155.8293	171.2878	179.7959	179.7959	211.9856	219.0013	219.0013	219.0013	219.0013	219.0013	219.0013
BOD (\$/1,000 lbs.)		203.8065	174.4212	189.5825	199.1219	199.1219	172.2535	177.8872	177.8872	177.8872	177.8872	177.8872	177.8872
Annual Lump Sum (\$)		-	43,000	43,000	43,000	43,000	892,000	892,000	892,000	892,000	892,000	892,000	892,000
Management Fee (%)		12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		1,364,247	1,113,594	1,292,169	1,110,372	1,061,410	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Capacity (cfs)		155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000
SS (1,000 lbs.)		13,788	12,443	14,026	12,729	12,119	13,000	13,000	13,000	13,000	13,000	13,000	13,000
BOD (1,000 lbs.)		11,371	10,302	11,783	11,305	11,280	11,300	11,300	11,300	11,300	11,300	11,300	11,300
Billings													
Volume		1,749,102	1,261,814	1,582,261	1,401,956	1,340,136	1,641,120	1,677,480	1,677,480	1,677,480	1,677,480	1,677,480	1,677,480
Capacity		873,425	760,585	815,610	831,575	831,575	943,950	969,990	969,990	969,990	969,990	969,990	969,990
SS		2,958,956	1,938,998	2,402,416	2,288,545	2,178,970	2,755,813	2,847,017	2,847,017	2,847,017	2,847,017	2,847,017	2,847,017
BOD		2,317,524	1,796,884	2,233,934	2,250,974	2,246,081	1,946,465	2,010,125	2,010,125	2,010,125	2,010,125	2,010,125	2,010,125
Lump Sum		-	43,000	43,000	43,000	43,000	892,000	892,000	892,000	892,000	892,000	892,000	892,000
Management Fee		947,881	696,154	849,266	817,926	796,771	981,522	1,007,593	1,007,593	1,007,593	1,007,593	1,007,593	1,007,593
Total		8,846,888	6,497,434	7,926,487	7,633,975	7,436,534	9,160,869	9,404,206	9,404,206	9,404,206	9,404,206	9,404,206	9,404,206
Lower Merion													
Rates													
Volume (\$/Mcf)		1.3238	1.1690	1.2633	1.3026	1.3026	1.4142	1.4455	1.4455	1.4455	1.4455	1.4455	1.4455
Capacity (\$/cfs)		5,731	5,018	5,382	5,487	5,487	6,229	6,401	6,401	6,401	6,401	6,401	6,401
SS (\$/1,000 lbs.)		218.7260	158.5951	174.3280	182.9871	182.9871	216.4549	223.6185	223.6185	223.6185	223.6185	223.6185	223.6185
BOD (\$/1,000 lbs.)		204.9121	175.3211	190.5606	200.1492	200.1492	173.2514	178.9177	178.9177	178.9177	178.9177	178.9177	178.9177
Annual Lump Sum (\$)		112,000	126,000	127,000	126,000	126,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		377,929	349,400	366,882	357,219	310,320	350,000	350,000	350,000	350,000	350,000	350,000	350,000
Capacity (cfs)		31,570	31,570	31,570	31,570	31,570	31,570	31,570	31,570	31,570	31,570	31,570	31,570
SS (1,000 lbs.)		3,944	3,653	3,830	3,718	3,245	3,500	3,500	3,500	3,500	3,500	3,500	3,500
BOD (1,000 lbs.)		3,416	3,172	3,310	3,208	2,797	3,100	3,100	3,100	3,100	3,100	3,100	3,100
Billings													
Volume		500,303	408,449	463,482	465,314	404,223	494,970	505,925	505,925	505,925	505,925	505,925	505,925
Capacity		180,928	158,418	169,910	173,225	173,225	196,650	202,080	202,080	202,080	202,080	202,080	202,080
SS		862,615	579,377	667,693	680,408	593,870	757,592	782,665	782,665	782,665	782,665	782,665	782,665
BOD		699,895	556,141	630,738	642,123	559,789	537,079	554,645	554,645	554,645	554,645	554,645	554,645
Lump Sum		112,000	126,000	127,000	126,000	126,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000
Management Fee		235,574	182,839	205,882	208,707	185,711	210,929	216,831	216,831	216,831	216,831	216,831	216,831
Total		2,591,314	2,011,224	2,264,706	2,295,776	2,042,818	2,320,220	2,385,146	2,385,146	2,385,146	2,385,146	2,385,146	2,385,146

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Springfield (less Wyndmoor)													
Rates													
Volume (\$/Mcf)		1.6213	1.4749	1.5786	1.6272	1.6272	1.6307	1.6672	1.6672	1.6672	1.6672	1.6672	1.6672
Capacity (\$/cfs)		10,354	10,146	10,870	11,135	11,135	11,593	11,901	11,901	11,901	11,901	11,901	11,901
SS (\$/1,000 lbs.)		218.7260	158.5951	174.3280	182.9871	182.9871	216.4549	223.6185	223.6185	223.6185	223.6185	223.6185	223.6185
BOD (\$/1,000 lbs.)		204.9121	175.3211	190.5606	200.1492	200.1492	173.2514	178.9177	178.9177	178.9177	178.9177	178.9177	178.9177
Annual Lump Sum (\$)		294,000	388,000	389,000	389,000	389,000	703,000	703,000	703,000	703,000	703,000	703,000	703,000
Management Fee (%)		12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		195,918	148,680	176,441	142,623	138,243	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Capacity (cfs)		4.600	4.600	4.600	4.600	4.600	4.600	4.600	4.600	4.600	4.600	4.600	4.600
SS (1,000 lbs.)		2,093	1,527	1,727	1,845	1,845	1,800	1,800	1,800	1,800	1,800	1,800	1,800
BOD (1,000 lbs.)		1,556	2,050	1,757	1,598	1,801	1,700	1,700	1,700	1,700	1,700	1,700	1,700
Billings													
Volume		317,642	219,288	278,529	232,076	224,949	244,605	250,080	250,080	250,080	250,080	250,080	250,080
Capacity		47,628	46,672	50,002	51,221	51,221	53,328	54,745	54,745	54,745	54,745	54,745	54,745
SS		457,701	242,211	301,073	337,642	337,573	389,619	402,513	402,513	402,513	402,513	402,513	402,513
BOD		318,832	359,368	334,882	319,760	360,453	294,527	304,160	304,160	304,160	304,160	304,160	304,160
Lump Sum		294,000	388,000	389,000	389,000	389,000	703,000	703,000	703,000	703,000	703,000	703,000	703,000
Management Fee		172,296	150,665	162,418	159,564	163,583	202,209	205,740	205,740	205,740	205,740	205,740	205,740
Total		1,608,098	1,406,204	1,515,904	1,489,264	1,526,779	1,887,288	1,920,238	1,920,238	1,920,238	1,920,238	1,920,238	1,920,238
Upper Darby													
Rates													
Volume (\$/Mcf)		1.3238	1.1690	1.2633	1.3026	1.3026	1.4142	1.4455	1.4455	1.4455	1.4455	1.4455	1.4455
Capacity (\$/cfs)		5,731	5,018	5,382	5,487	5,487	6,229	6,401	6,401	6,401	6,401	6,401	6,401
SS (\$/1,000 lbs.)		218.7260	158.5951	174.3280	182.9871	182.9871	216.4549	223.6185	223.6185	223.6185	223.6185	223.6185	223.6185
BOD (\$/1,000 lbs.)		204.9121	175.3211	190.5606	200.1492	200.1492	173.2514	178.9177	178.9177	178.9177	178.9177	178.9177	178.9177
Annual Lump Sum (\$)		37,000	43,000	43,000	43,000	43,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		512,225	437,580	509,725	463,520	450,345	460,000	460,000	460,000	460,000	460,000	460,000	460,000
Capacity (cfs)		35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
SS (1,000 lbs.)		4,985	4,259	4,961	4,511	4,383	4,600	4,600	4,600	4,600	4,600	4,600	4,600
BOD (1,000 lbs.)		4,250	3,631	4,229	3,846	3,737	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Billings													
Volume		678,084	511,531	643,936	603,781	586,619	650,532	664,930	664,930	664,930	664,930	664,930	664,930
Capacity		200,585	175,630	188,370	192,045	192,045	218,015	224,035	224,035	224,035	224,035	224,035	224,035
SS		1,090,395	675,414	864,818	825,491	802,027	995,693	1,028,645	1,028,645	1,028,645	1,028,645	1,028,645	1,028,645
BOD		870,919	636,563	805,969	769,788	747,908	693,006	715,671	715,671	715,671	715,671	715,671	715,671
Lump Sum		37,000	43,000	43,000	43,000	43,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Management Fee		287,698	204,214	254,609	243,411	237,160	261,225	268,828	268,828	268,828	268,828	268,828	268,828
Total		3,164,681	2,246,351	2,800,702	2,677,516	2,608,759	2,873,470	2,957,109	2,957,109	2,957,109	2,957,109	2,957,109	2,957,109

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Springfield (Wyndmoor)													
Rates													
Volume (\$/Mcf)		1.9723	1.7579	1.8977	1.9608	1.9608	1.9311	1.9726	1.9726	1.9726	1.9726	1.9726	1.9726
Capacity (\$/cfs)		11,103	11,938	12,748	12,951	12,951	13,490	13,894	13,894	13,894	13,894	13,894	13,894
SS (\$/1,000 lbs.)		284.3272	229.6040	250.9098	261.4507	261.4507	320.3320	331.3816	331.3816	331.3816	331.3816	331.3816	331.3816
BOD (\$/1,000 lbs.)		133.7348	118.1136	128.1883	133.4719	133.4719	110.9647	114.8652	114.8652	114.8652	114.8652	114.8652	114.8652
Annual Lump Sum (\$)		120,000	138,000	138,000	138,000	138,000	147,000	147,000	147,000	147,000	147,000	147,000	147,000
Management Fee (%)		12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		22,707	18,475	19,785	18,387	18,421	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Capacity (cfs)		1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930
SS (1,000 lbs.)		125	106	112	160	211	160	160	160	160	160	160	160
BOD (1,000 lbs.)		99	85	89	122	156	125	125	125	125	125	125	125
Billings													
Volume		44,785	32,477	37,546	36,054	36,120	36,691	37,479	37,479	37,479	37,479	37,479	37,479
Capacity		21,429	23,040	24,604	24,995	24,995	26,036	26,815	26,815	26,815	26,815	26,815	26,815
SS		35,426	24,365	28,061	41,814	55,292	51,253	53,021	53,021	53,021	53,021	53,021	53,021
BOD		13,278	10,012	11,442	16,273	20,876	13,871	14,358	14,358	14,358	14,358	14,358	14,358
Lump Sum		120,000	138,000	138,000	138,000	138,000	147,000	147,000	147,000	147,000	147,000	147,000	147,000
Management Fee		28,190	27,347	28,758	30,856	33,034	32,982	33,441	33,441	33,441	33,441	33,441	33,441
Total		263,108	255,242	268,410	287,992	308,318	307,832	312,115	312,115	312,115	312,115	312,115	312,115

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Billed Volume Summary (Mcf)													
Abington		114,622	97,815	102,068	100,091	95,757	98,000	98,000	98,000	98,000	98,000	98,000	98,000
Bensalem		178,606	170,990	180,864	171,935	165,636	170,000	170,000	170,000	170,000	170,000	170,000	170,000
Bucks County		953,586	815,278	945,440	846,849	777,314	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Cheltenham		522,135	411,325	281,173	356,825	294,940	325,000	325,000	325,000	325,000	325,000	325,000	325,000
Lower Moreland		65,732	53,690	63,271	57,771	51,038	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Lower Southampton		249,789	244,778	310,188	255,404	219,604	260,000	260,000	260,000	260,000	260,000	260,000	260,000
DELCORA		1,364,247	1,113,594	1,292,169	1,110,372	1,061,410	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Lower Merion		377,929	349,400	366,882	357,219	310,320	350,000	350,000	350,000	350,000	350,000	350,000	350,000
Springfield (less Wyndmoor)		195,918	148,680	176,441	142,623	138,243	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Upper Darby		512,225	437,580	509,725	463,520	450,345	460,000	460,000	460,000	460,000	460,000	460,000	460,000
Springfield (Wyndmoor)		22,707	18,475	19,785	18,387	18,421	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Total		4,557,496	3,861,607	4,248,005	3,880,996	3,583,028	3,887,000	3,887,000	3,887,000	3,887,000	3,887,000	3,887,000	3,887,000
By WPCP													
NE WPCP		2,084,470	1,793,877	1,883,004	1,788,875	1,604,289	1,708,000	1,708,000	1,708,000	1,708,000	1,708,000	1,708,000	1,708,000
SW WPCP		2,450,319	2,049,255	2,345,217	2,073,735	1,960,319	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000
SE WPCP		22,707	18,475	19,785	18,387	18,421	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Billings Summary													
Abington		1,433,486	1,175,552	1,079,428	1,505,854	1,253,583	1,587,281	1,615,862	1,615,862	1,615,862	1,615,862	1,615,862	1,615,862
Bensalem		1,797,944	1,722,599	1,560,644	1,599,973	1,884,725	1,807,660	1,861,178	1,861,178	1,861,178	1,861,178	1,861,178	1,861,178
Bucks County		7,820,704	6,447,843	6,795,793	8,129,534	7,330,114	8,279,499	8,517,078	8,792,078	8,792,078	8,792,078	8,792,078	8,792,078
Cheltenham		4,278,091	3,257,491	2,878,829	3,329,092	3,105,390	3,682,508	3,761,407	3,761,407	3,761,407	3,761,407	3,761,407	3,761,407
Lower Moreland		797,524	654,973	728,027	761,457	706,083	789,131	802,664	802,664	802,664	802,664	802,664	802,664
Lower Southampton		2,200,955	2,909,042	2,868,592	3,107,223	3,055,409	3,717,710	3,901,296	3,901,296	3,901,296	3,901,296	3,901,296	3,901,296
DELCORA		8,440,530	6,712,457	7,680,973	7,886,945	7,595,414	9,160,869	9,404,206	9,404,206	9,404,206	9,404,206	9,404,206	9,404,206
Lower Merion		2,804,665	2,390,651	2,594,719	2,533,305	2,089,501	2,320,220	2,385,146	2,385,146	2,385,146	2,385,146	2,385,146	2,385,146
Springfield (less Wyndmoor)		1,685,156	1,467,661	2,051,437	1,720,964	1,811,441	1,887,288	1,920,238	1,920,238	1,920,238	1,920,238	1,920,238	1,920,238
Upper Darby		3,451,100	2,316,463	3,059,522	2,888,737	2,620,282	2,873,470	2,957,109	2,957,109	2,957,109	2,957,109	2,957,109	2,957,109
Springfield (Wyndmoor)		232,623	248,596	261,047	283,945	308,353	307,832	312,115	312,115	312,115	312,115	312,115	312,115
Total		34,942,778	29,303,329	31,559,011	33,747,029	31,760,293	36,413,468	37,438,296	37,713,296	37,713,296	37,713,296	37,713,296	37,713,296
Actual		34,942,778	29,424,335	31,641,656	33,221,384	32,389,116	-	-	-	-	-	-	-
Wholesale Billing Summary By WPCP													
NE WPCP		18,328,704	16,167,500	15,911,313	18,433,133	17,335,303	19,863,789	20,459,483	20,734,483	20,734,483	20,734,483	20,734,483	20,734,483
SW WPCP		16,381,452	12,887,232	15,386,651	15,029,951	14,116,637	16,241,847	16,666,698	16,666,698	16,666,698	16,666,698	16,666,698	16,666,698
SE WPCP		232,623	248,596	261,047	283,945	308,353	307,832	312,115	312,115	312,115	312,115	312,115	312,115

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sanitary and Stormwater Sewer - Revenue Summary													Customer - 20
Sanitary Sewer Collections													
General Service		185,078	197,460	211,417	203,124	201,066	218,488	230,098	230,282	228,769	227,015	225,369	223,742
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Fire		267	214	100	-	-	137	146	146	146	146	146	146
Surcharge		5,110	5,656	4,252	3,407	7,375	4,895	5,205	5,205	5,205	5,205	5,205	5,205
Wholesale		34,943	29,424	31,642	33,221	32,389	36,413	37,438	37,713	37,713	37,713	37,713	37,713
Subtotal		225,397	232,754	247,410	239,752	240,831	259,934	272,887	273,347	271,833	270,079	268,433	266,806
Stormwater Collections													
Total		-	134,130	146,527	153,092	154,267	153,798	157,931	157,761	156,872	155,697	154,479	153,278
xxxxxxxxxx		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	134,130	146,527	153,092	154,267	153,798	157,931	157,761	156,872	155,697	154,479	153,278
Total		225,397	366,884	393,937	392,845	395,097	413,732	430,818	431,108	428,705	425,776	422,912	420,084
General Service - Sanitary Sewer + Stormwater													
Actual			310,310	331,428	353,592	356,242							
Calculated			331,590	357,944	356,216	355,333							
			106.9%	108.0%	100.7%	99.7%							
xxxxxxxxxx - Sanitary Sewer + Stormwater													
Actual			-	-	-	-							
Calculated			-	-	-	-							
			-	-	-	-							
General Service + xxxxxxxxxxx - Sanitary Sewer + Stormwater													
Actual			310,310	331,428	353,592	356,242							
Calculated			331,590	357,944	356,216	355,333							
			106.9%	108.0%	100.7%	99.7%							
General Service - Water + Sanitary Sewer + Stormwater													
Actual			537,712	575,559	600,555	601,187							
Calculated			560,827	601,349	604,021	600,337							
			104.3%	104.5%	100.6%	99.9%							
xxxxxxxxxx - Water + Sanitary Sewer + Stormwater													
Actual			-	-	-	-							
Calculated			-	-	-	-							
			-	-	-	-							
General Service + xxxxxxxxxxx - Water + Sanitary Sewer + Stormwater													
Actual			537,712	575,559	600,555	601,187							
Calculated			560,827	601,349	604,021	600,337							
			104.3%	104.5%	100.6%	99.9%							

5 Year Total
2,315,013
2,366,533
102.2%

Description	Escalation	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Stormwater - Units of Service													Customer - 21
Number of Non- Exempt Parcels													
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	421,495	423,642	424,881	424,613	424,703	425,574	425,139	425,139	425,139	425,139	425,139	425,139
SW Only	Account - No Growth	12,704	11,129	10,571	10,054	9,265	8,640	8,953	8,953	8,953	8,953	8,953	8,953
Discount: Elderly, Education & Charities													
Water & Sewer	Account - No Growth	20,003	19,918	20,120	21,373	22,369	22,989	22,679	22,679	22,679	22,679	22,679	22,679
SW Only	Account - No Growth	16	14	28	30	31	26	29	29	29	29	29	29
Discount PHA													
Water & Sewer	Account - No Growth	4,459	4,363	4,239	4,185	4,167	4,158	4,163	4,163	4,163	4,163	4,163	4,163
SW Only	Account - No Growth	273	227	189	172	164	168	166	166	166	166	166	166
xxxxxxxx													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		458,950	459,293	460,028	460,427	460,699	461,555	461,129	461,129	461,129	461,129	461,129	461,129
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	32,602	32,509	32,428	32,497	32,800	32,685	32,743	32,743	32,743	32,743	32,743	32,743
SW Only	Account - No Growth	39,273	38,821	38,135	37,106	36,819	36,690	36,755	36,755	36,755	36,755	36,755	36,755
Discount: Elderly, Education & Charities (Includes Fairmount Park City Leased Parcels)													
Water & Sewer	Account - No Growth	1,979	1,982	1,946	1,911	1,894	1,850	1,872	1,872	1,872	1,872	1,872	1,872
SW Only	Account - No Growth	273	283	303	298	326	304	315	315	315	315	315	315
Discount PHA													
Water & Sewer	Account - No Growth	371	365	344	213	194	199	197	197	197	197	197	197
SW Only	Account - No Growth	976	973	981	1,114	1,101	1,120	1,111	1,111	1,111	1,111	1,111	1,111
Subtotal		75,474	74,933	74,137	73,139	73,134	72,848	72,993	72,993	72,993	72,993	72,993	72,993
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	1,502	1,552	1,578	1,639	1,676	1,784	1,730	1,730	1,730	1,730	1,730	1,730
SW Only	Account - No Growth	34	28	24	29	29	27	28	28	28	28	28	28
Discount: Elderly, Education & Charities													
Water & Sewer	Account - No Growth	31	32	30	35	44	47	46	46	46	46	46	46
SW Only	Account - No Growth	-	-	1	1	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer	Account - No Growth	-	1	1	1	1	1	1	1	1	1	1	1
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxx													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		1,567	1,613	1,634	1,705	1,751	1,860	1,806	1,806	1,806	1,806	1,806	1,806
Total		535,991	535,839	535,799	535,271	535,584	536,263	535,928	535,928	535,928	535,928	535,928	535,928

Description	Escalation	Historical					Study Period						Customer - 22
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Number of Parcels-Credits													Customer - 22
Residential													
Non-Discount													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Discount: Elderly, Education & Charities													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxx (Not In Use)													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer		236	342	398	450	486	564	621	669	712	754	797	839
SW Only		172	233	215	220	229	255	281	303	322	342	361	380
Discount: Elderly, Education & Charities													
Water & Sewer		93	137	161	151	155	161	177	191	203	215	227	239
SW Only		-	3	31	12	11	10	11	12	13	13	14	15
Discount PHA													
Water & Sewer		-	1	1	1	1	1	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxx (Not In Use)													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		501	716	806	834	882	991	1,090	1,175	1,250	1,324	1,399	1,473
Condominiums													
Non-Discount													
Water & Sewer		7	16	19	27	30	31	34	37	39	42	44	46
SW Only		-	-	-	1	1	1	-	-	-	-	-	-
Discount: Elderly, Education & Charities													
Water & Sewer		3	2	3	3	3	3	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxx (Not In Use)													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		10	18	22	31	34	35	34	37	39	42	44	46
Total		511	734	828	865	916	1,026	1,124	1,212	1,289	1,366	1,443	1,519

Description	Escalation	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number of Parcels-Appeals (Cumulative Annual Projection)												Customer - 23
Residential												
Non-Discout												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount: Elderly, Education & Charities												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount PHA												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
xxxxxxx (Not In Use)												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-
Non-Residential												
Non-Discout												
Water & Sewer		-	-	-	-	-	332	282	514	696	828	910
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount: Elderly, Education & Charities												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount PHA												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
xxxxxxx (Not In Use)												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	332	282	514	696	828	910
Condominiums												
Non-Discout												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount: Elderly, Education & Charities												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount PHA												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
xxxxxxx (Not In Use)												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-
Total		-	-	-	-	-	332	282	514	696	828	910

Description	Escalation	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number of Community Gardens Parcels												Customer - 24
Residential												
Non-Discount												
Water & Sewer		-	-	-	-	-	-	2	2	2	2	2
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount: Elderly, Education & Charities												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount PHA												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
xxxxxxxx (Not In Use)												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	2	2	2	2	2
Non-Residential												
Non-Discount												
Water & Sewer		-	-	-	-	-	-	6	6	6	6	6
SW Only		-	-	-	-	-	-	124	124	124	124	124
Discount: Elderly, Education & Charities												
Water & Sewer		-	-	-	-	-	-	18	18	18	18	18
SW Only		-	-	-	-	-	-	63	63	63	63	63
Discount PHA												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	11	11	11	11	11
xxxxxxxx (Not In Use)												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	222	222	222	222	222
Condominiums												
Non-Discount												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount: Elderly, Education & Charities												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Discount PHA												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
xxxxxxxx (Not In Use)												
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-
Total		-	-	-	-	-	-	224	224	224	224	224

Description	Escalation	Historical					Study Period						Customer - 25
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Number of Billable Parcels-After Community Gardens													
Residential													
Non-Discount													
Water & Sewer		421,495	423,642	424,881	424,613	424,703	425,574	425,137	425,137	425,137	425,137	425,137	425,137
SW Only		12,704	11,129	10,571	10,054	9,265	8,640	8,953	8,953	8,953	8,953	8,953	8,953
Discount: Elderly, Education & Charities													
Water & Sewer		20,003	19,918	20,120	21,373	22,369	22,989	22,679	22,679	22,679	22,679	22,679	22,679
SW Only		16	14	28	30	31	26	29	29	29	29	29	29
Discount PHA													
Water & Sewer		4,459	4,363	4,239	4,185	4,167	4,158	4,163	4,163	4,163	4,163	4,163	4,163
SW Only		273	227	189	172	164	168	166	166	166	166	166	166
xxxxxxxx (Not In Use)													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		458,950	459,293	460,028	460,427	460,699	461,555	461,127	461,127	461,127	461,127	461,127	461,127
Non-Residential													
Non-Discount													
Water & Sewer		32,602	32,509	32,428	32,497	32,800	32,685	32,737	32,737	32,737	32,737	32,737	32,737
SW Only		39,273	38,821	38,135	37,106	36,819	36,690	36,631	36,631	36,631	36,631	36,631	36,631
Discount: Elderly, Education & Charities													
Water & Sewer		1,979	1,982	1,946	1,911	1,894	1,850	1,854	1,854	1,854	1,854	1,854	1,854
SW Only		273	283	303	298	326	304	252	252	252	252	252	252
Discount PHA													
Water & Sewer		371	365	344	213	194	199	197	197	197	197	197	197
SW Only		976	973	981	1,114	1,101	1,120	1,100	1,100	1,100	1,100	1,100	1,100
xxxxxxxx (Not In Use)													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		75,474	74,933	74,137	73,139	73,134	72,848	72,771	72,771	72,771	72,771	72,771	72,771
Condominiums													
Non-Discount													
Water & Sewer		1,502	1,552	1,578	1,639	1,676	1,784	1,730	1,730	1,730	1,730	1,730	1,730
SW Only		34	28	24	29	29	27	28	28	28	28	28	28
Discount: Elderly, Education & Charities													
Water & Sewer		31	32	30	35	44	47	46	46	46	46	46	46
SW Only		-	-	1	1	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer		-	1	1	1	1	1	1	1	1	1	1	1
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
xxxxxxxx (Not In Use)													
Water & Sewer		-	-	-	-	-	-	-	-	-	-	-	-
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		1,567	1,613	1,634	1,705	1,751	1,860	1,806	1,806	1,806	1,806	1,806	1,806
Total		535,991	535,839	535,799	535,271	535,584	536,263	535,704	535,704	535,704	535,704	535,704	535,704

FINPLAN17.XLS

BILLTAB

Index	Description	Table
Bill Tab	Bill Tabulation Data Worksheet	
Bill Tab - 1	Water Bill Tabulation Data	
Bill Tab - 2	Sewer Bill Tabulation Data	

Water Bill Tabulation Data

Bill Tab - 1

SELECTED BILL TAB DISTRIBUTION

2016

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)
Water Accounts											
Meters											
5/8	96.99%	99.98%	95.24%	47.80%	9.13%	4.17%	100.00%	100.00%	100.00%	1.98%	0.89%
3/4	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.47%
1	1.44%	0.01%	1.17%	12.60%	7.10%	4.92%	0.00%	0.00%	0.00%	1.11%	17.10%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.43%	0.00%	0.72%	5.98%	3.25%	3.79%	0.00%	0.00%	0.00%	1.32%	2.69%
2	0.64%	0.00%	1.31%	9.75%	12.78%	13.64%	0.00%	0.00%	0.00%	22.57%	27.37%
3	0.20%	0.00%	0.66%	8.76%	21.10%	26.89%	0.00%	0.00%	0.00%	4.03%	2.55%
4	0.13%	0.00%	0.42%	11.57%	25.15%	27.27%	0.00%	0.00%	0.00%	22.31%	15.60%
6	0.10%	0.00%	0.35%	2.85%	18.05%	13.26%	0.00%	0.00%	0.00%	34.16%	24.18%
8	0.03%	0.00%	0.14%	0.59%	2.64%	4.55%	0.00%	0.00%	0.00%	10.72%	7.87%
10	0.01%	0.00%	0.00%	0.08%	0.81%	1.52%	0.00%	0.00%	0.00%	1.58%	1.08%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%	0.20%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
0 - 2 Mcf	63.06%	93.75%	33.04%	18.92%	2.59%	0.89%	100.00%	100.00%	100.00%	6.21%	
2 - 100 Mcf	28.23%	6.25%	38.46%	72.96%	47.90%	25.80%	0.00%	0.00%	0.00%	31.60%	
100 - 2,000 Mcf	8.21%	0.00%	28.49%	8.12%	47.92%	49.70%	0.00%	0.00%	0.00%	62.19%	
Over 2,000 Mcf	0.27%	0.00%	0.01%	0.00%	1.59%	23.62%	0.00%	0.00%	0.00%	0.00%	
Total	99.77%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

2016 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)
Water Accounts Meters											
5/8	96.99%	99.98%	95.24%	47.80%	9.13%	4.17%	100.00%	100.00%	100.00%	1.98%	0.89%
3/4	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.47%
1	1.44%	0.01%	1.17%	12.60%	7.10%	4.92%	0.00%	0.00%	0.00%	1.11%	17.10%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.43%	0.00%	0.72%	5.98%	3.25%	3.79%	0.00%	0.00%	0.00%	1.32%	2.69%
2	0.64%	0.00%	1.31%	9.75%	12.78%	13.64%	0.00%	0.00%	0.00%	22.57%	27.37%
3	0.20%	0.00%	0.66%	8.76%	21.10%	26.89%	0.00%	0.00%	0.00%	4.03%	2.55%
4	0.13%	0.00%	0.42%	11.57%	25.15%	27.27%	0.00%	0.00%	0.00%	22.31%	15.60%
6	0.10%	0.00%	0.35%	2.85%	18.05%	13.26%	0.00%	0.00%	0.00%	34.16%	24.18%
8	0.03%	0.00%	0.14%	0.59%	2.64%	4.55%	0.00%	0.00%	0.00%	10.72%	7.87%
10	0.01%	0.00%	0.00%	0.08%	0.81%	1.52%	0.00%	0.00%	0.00%	1.58%	1.08%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%	0.20%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
0 - 2 Mcf	63.09%	93.75%	33.04%	18.92%	2.59%	0.89%	100.00%	100.00%	100.00%	6.21%	
2 - 100 Mcf	28.40%	6.25%	38.46%	72.96%	47.90%	25.80%	0.00%	0.00%	0.00%	31.60%	
100 - 2,000 Mcf	8.24%	0.00%	28.49%	8.12%	47.92%	49.70%	0.00%	0.00%	0.00%	62.19%	
Over 2,000 Mcf	0.27%	0.00%	0.01%	0.00%	1.59%	23.62%	0.00%	0.00%	0.00%	0.00%	
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

2015 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)
Water Accounts Meters											
5/8	97.28%	99.98%	95.56%	47.53%	9.84%	4.06%	100.00%	100.00%	100.00%	1.87%	0.86%
3/4	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.41%
1	1.19%	0.01%	1.20%	12.50%	6.83%	5.17%	0.00%	0.00%	0.00%	1.03%	11.85%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.42%	0.00%	0.42%	6.10%	2.81%	3.69%	0.00%	0.00%	0.00%	0.88%	2.22%
2	0.62%	0.00%	1.15%	9.63%	12.25%	13.65%	0.00%	0.00%	0.00%	18.75%	24.68%
3	0.20%	0.00%	0.64%	8.75%	21.49%	26.57%	0.00%	0.00%	0.00%	4.34%	3.08%
4	0.13%	0.00%	0.44%	11.66%	24.70%	27.31%	0.00%	0.00%	0.00%	23.34%	17.72%
6	0.10%	0.00%	0.42%	3.07%	18.88%	13.28%	0.00%	0.00%	0.00%	36.43%	28.40%
8	0.04%	0.00%	0.15%	0.69%	2.41%	4.80%	0.00%	0.00%	0.00%	11.41%	9.27%
10	0.01%	0.00%	0.00%	0.08%	0.80%	1.48%	0.00%	0.00%	0.00%	1.69%	1.28%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.23%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
0 - 2 Mcf	63.64%	92.92%	35.91%	17.97%	2.75%	0.95%	100.00%	100.00%	100.00%	7.94%	
2 - 100 Mcf	27.69%	7.03%	38.20%	71.53%	51.92%	27.65%	0.00%	0.00%	0.00%	33.28%	
100 - 2,000 Mcf	8.27%	0.05%	25.89%	10.51%	45.34%	51.42%	0.00%	0.00%	0.00%	58.78%	
Over 2,000 Mcf	0.40%	0.00%	0.00%	0.00%	0.00%	19.97%	0.00%	0.00%	0.00%	0.00%	
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

2014 Data

2014 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)
Water Accounts Meters											
5/8	97.49%	99.97%	96.09%	46.98%	11.01%	4.41%	100.00%	100.00%	100.00%	2.25%	0.89%
3/4	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.28%
1	1.08%	0.02%	1.10%	12.41%	6.56%	5.51%	0.00%	0.00%	0.00%	1.14%	8.92%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.40%	0.01%	0.13%	6.11%	3.04%	4.04%	0.00%	0.00%	0.00%	0.54%	1.89%
2	0.58%	0.01%	1.05%	9.52%	12.65%	13.60%	0.00%	0.00%	0.00%	14.67%	21.81%
3	0.19%	0.00%	0.62%	9.12%	21.08%	26.10%	0.00%	0.00%	0.00%	4.62%	3.48%
4	0.12%	0.00%	0.45%	11.90%	23.65%	28.68%	0.00%	0.00%	0.00%	24.42%	19.48%
6	0.09%	0.00%	0.40%	3.15%	18.97%	12.13%	0.00%	0.00%	0.00%	38.38%	31.35%
8	0.03%	0.00%	0.15%	0.73%	2.34%	4.41%	0.00%	0.00%	0.00%	11.94%	10.22%
10	0.01%	0.00%	0.00%	0.07%	0.70%	1.10%	0.00%	0.00%	0.00%	1.79%	1.43%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.26%	0.25%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
0 - 2 Mcf	63.64%	92.92%	35.91%	17.97%	2.75%	0.95%	100.00%	100.00%	100.00%	7.94%	
2 - 100 Mcf	27.69%	7.03%	38.20%	71.53%	51.92%	27.65%	0.00%	0.00%	0.00%	33.28%	
100 - 2,000 Mcf	8.27%	0.05%	25.89%	10.51%	45.34%	51.42%	0.00%	0.00%	0.00%	58.78%	
Over 2,000 Mcf	0.40%	0.00%	0.00%	0.00%	0.00%	19.97%	0.00%	0.00%	0.00%	0.00%	
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Year Choose: 2016

General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)	Total
453,210	21,389	5,731	2,523	493	264	3	-	-	3,797	7,122	
439,576	21,384	5,458	1,206	45	11	3	-	-	75	64	467,821
77	-	-	-	-	-	-	-	-	-	34	111
6,537	3	67	318	35	13	-	-	-	42	1,218	8,233
-	-	-	-	-	-	-	-	-	-	-	-
1,957	1	41	151	16	10	-	-	-	50	192	2,418
2,907	1	75	246	63	36	-	-	-	857	1,949	6,134
909	-	38	221	104	71	-	-	-	153	182	1,678
610	-	24	292	124	72	-	-	-	847	1,111	3,080
445	-	20	72	89	35	-	-	-	1,297	1,722	3,680
157	-	8	15	13	12	-	-	-	407	560	1,172
30	-	-	2	4	4	-	-	-	60	77	177
5	-	-	-	-	-	-	-	-	9	14	28
-	-	-	-	-	-	-	-	-	-	-	-
453,210	21,389	5,731	2,523	493	264	3	-	-	3,797	7,122	494,532
4,788,975	117,789	163,222	179,950	300,850	573,219	16	-	-	14,981		
3,020,094	110,432	53,931	34,048	7,791	5,075	16	-	-	931		3,232,318
1,351,796	7,357	62,778	131,299	144,116	147,867	-	-	-	4,734		1,849,946
393,102	-	46,499	14,603	144,173	284,864	-	-	-	9,316		892,558
12,814	-	14	-	4,769	135,414	-	-	-	-		153,011
4,777,806	117,789	163,222	179,950	300,850	573,219	16	-	-	14,981		6,127,833

General Service	Senior Citizens Fiscal Year	PHA 2016	Charity and Schools	Hospital/Uni versity	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)	Total
439,574	21,384	5,458	1,206	45	11	3	0	0	75	78	467,834
77	0	0	0	0	0	0			0	42	119
6,537	3	67	318	35	13	0			42	1,503	8,518
-	0	0	0	0	0	0			0	0	-
1,957	1	41	151	16	10	0			50	237	2,463
2,907	1	75	246	63	36	0			857	2,406	6,591
909	0	38	221	104	71	0			153	225	1,721
610	0	24	292	124	72	0			847	1,371	3,340
445	0	20	72	89	35	0			1,297	2,126	4,084
157	0	8	15	13	12	0			407	691	1,303
30	0	0	2	4	4	0			60	95	195
5	0	0	0	0	0	0			9	17	31
-	0	0	0	0	0	0			0		-
453,208	21,389	5,731	2,523	493	264	3	0	0	3,797	8,790	496,198
3,019,500	114,895	56,107	34,813	8,085	5,183	16	0	0	848		3,239,448
1,359,191	7,654	65,312	134,248	149,540	151,032	0			4,315		1,871,292
394,264	0	48,376	14,931	149,599	290,961	0			8,492		906,623
12,805	0	15	0	4,949	138,312	0			0		156,081
4,785,761	122,550	169,810	183,992	312,173	585,488	16	0	0	13,655		6,173,443

General Service	Senior Citizens Fiscal Year	PHA 2015	Charity and Schools	Hospital/Uni versity	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)	Total
439,245	20,183	5,636	1,239	49	11	2	0	0	76	64	466,505
53	0	0	0	0	0	0	0	0	0	30	83
5,372	2	71	326	34	14	0	0	0	42	877	6,738
-	0	0	0	0	0	0	0	0	0	0	-
1,891	1	25	159	14	10	0	0	0	36	164	2,300
2,819	1	68	251	61	37	0	0	0	764	1,827	5,828
885	0	38	228	107	72	0	0	0	177	228	1,735
598	0	26	304	123	74	0	0	0	951	1,312	3,388
450	0	25	80	94	36	0	0	0	1,484	2,102	4,271
164	0	9	18	12	13	0	0	0	465	686	1,367
31	0	0	2	4	4	0	0	0	69	95	205
6	0	0	0	0	0	0	0	0	10	17	33
-	0	0	0	0	0	0	0	0	0	0	-
451,514	20,187	5,898	2,607	498	271	2	0	0	4,074	7,402	492,453
3,130,696	105,015	61,082	36,865	7,624	5,505	22	0	0	684		3,347,493
1,362,213	7,947	64,976	146,768	144,143	159,462	0			2,865		1,888,373
406,861	54	44,039	21,558	125,865	296,530	0			5,060		899,968
19,778	0	0	0	0	115,135	0			0		134,912
4,919,547	113,016	170,098	205,190	277,633	576,632	22	0	0	8,609		6,270,746

General Service	Senior Citizens Fiscal Year	PHA 2014	Charity and Schools	Hospital/Uni versity	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Private Fire (Unmetered)	Total
439,623	19,518	5,747	1,283	47	12	2	0	0	79	58	466,369
37	0	0	0	0	0	0	0	0	0	18	55
4,885	3	66	339	28	15	0	0	0	40	582	5,958
-	0	0	0	0	0	0	0	0	0	0	-
1,782	1	8	167	13	11	0	0	0	19	123	2,124
2,618	1	63	260	54	37	0	0	0	515	1,423	4,971
842	0	37	249	90	71	0	0	0	162	227	1,678
555	0	27	325	101	78	0	0	0	857	1,271	3,214
409	0	24	86	81	33	0	0	0	1,347	2,045	4,025
147	0	9	20	10	12	0	0	0	419	667	1,284
31	0	0	2	3	3	0	0	0	63	94	196
5	0	0	0	0	0	0	0	0	9	16	30
-	0	0	0	0	0	0	0	0	0	0	-
450,934	19,523	5,981	2,731	427	272	2	0	0	3,510	6,524	489,904
3,130,696	105,015	61,082	36,865	7,624	5,505	22	0	0	684		3,347,493
1,362,213	7,947	64,976	146,768	144,143	159,462	0			2,865		1,888,373
406,861	54	44,039	21,558	125,865	296,530	0			5,060		899,968
19,778	0	0	0	0	115,135	0			0		134,912
4,919,547	113,016	170,098	205,190	277,633	576,632	22	0	0	8,609		6,270,746

Water **Bill Tab - 1b**

SELECTED BILL TAB DISTRIBUTION

Year Choose: 2016

Description	Residential	Commercial	Industrial	Public Utilities	Year Choose: 2016				Total
					Residential	Commercial	Industrial	Public Utilities	
Meters	91.87%	7.86%	0.24%	0.03%	416,371	35,627	1,074	138	453,210
5/8	98.67%	79.02%	49.16%	34.78%	410,849	28,151	528	48	439,576
3/4	0.02%	0.04%	0.00%	0.00%	63	14	-	-	77
1	0.83%	7.83%	23.00%	21.01%	3,471	2,790	247	29	6,537
1 1/4	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
1 1/2	0.16%	3.33%	7.54%	7.97%	678	1,187	81	11	1,957
2	0.23%	5.10%	10.89%	16.67%	950	1,817	117	23	2,907
3	0.04%	1.93%	4.84%	10.14%	156	687	52	14	909
4	0.02%	1.39%	1.77%	4.35%	90	495	19	6	610
6	0.02%	0.95%	1.96%	2.90%	83	337	21	4	445
8	0.01%	0.34%	0.65%	1.45%	28	120	7	2	157
10	0.00%	0.07%	0.19%	0.00%	2	26	2	-	30
12	0.00%	0.01%	0.00%	0.72%	1	3	-	1	5
14	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	416,371	35,627	1,074	138	453,210
Volume	65.29%	32.30%	2.18%	0.23%	3,126,484	1,546,799	104,522	11,169	4,788,975
0 - 2 Mcf	85.26%	22.16%	11.27%	12.84%	2,665,503	342,808	11,783	1,434	3,021,528
2 - 100 Mcf	13.88%	56.35%	44.16%	74.39%	434,023	871,613	46,160	8,308	1,360,104
100 - 2,000 Mcf	0.86%	20.98%	39.82%	12.77%	26,958	324,527	41,617	1,426	394,528
Over 2,000 Mcf	0.00%	0.51%	4.75%	0.00%	-	7,852	4,962	-	12,814
Total	100.00%	100.00%	100.00%	100.00%	3,126,484	1,546,799	104,522	11,169	4,788,975

2016 Data

Description	Residential	Commercial	Industrial	Public Utilities
Meters	91.87%	7.86%	0.24%	0.03%
5/8	98.67%	79.02%	49.16%	34.78%
3/4	0.02%	0.04%	0.00%	0.00%
1	0.83%	7.83%	23.00%	21.01%
1 1/4	0.00%	0.00%	0.00%	0.00%
1 1/2	0.16%	3.33%	7.54%	7.97%
2	0.23%	5.10%	10.89%	16.67%
3	0.04%	1.93%	4.84%	10.14%
4	0.02%	1.39%	1.77%	4.35%
6	0.02%	0.95%	1.96%	2.90%
8	0.01%	0.34%	0.65%	1.45%
10	0.00%	0.07%	0.19%	0.00%
12	0.00%	0.01%	0.00%	0.72%
14	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%
Volume	65.29%	32.30%	2.18%	0.23%
0 - 2 Mcf	85.26%	22.16%	11.27%	12.84%
2 - 100 Mcf	13.88%	56.35%	44.16%	74.39%
100 - 2,000 Mcf	0.86%	20.98%	39.82%	12.77%
Over 2,000 Mcf	0.00%	0.51%	4.75%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

Fiscal Year	Residential	Commercial	Industrial	Public Utilities	Total
2016					
	410,847	28,151	528	48	439,574
	63	14	0	0	77
	3,471	2,790	247	29	6,537
	0	0	0	0	-
	678	1,187	81	11	1,957
	950	1,817	117	23	2,907
	156	687	52	14	909
	90	495	19	6	610
	83	337	21	4	445
	28	120	7	2	157
	2	26	2	0	30
	1	3	0	1	5
	0	0	0	0	-
	416,369	35,627	1,074	138	453,208
	2,663,714	342,578	11,776	1,433	3,019,500
	433,732	871,028	46,129	8,303	1,359,191
	26,940	324,309	41,589	1,426	394,264
	0	7,847	4,959	0	12,805
	3,124,386	1,545,761	104,452	11,162	4,785,761

2015 Data

Description	Residential	Commercial	Industrial	Public Utilities
Meters	91.87%	7.86%	0.24%	0.03%
5/8	98.97%	79.22%	49.36%	31.09%
3/4	0.01%	0.05%	0.00%	0.00%
1	0.57%	7.70%	23.44%	23.53%
1 1/4	0.00%	0.00%	0.00%	0.00%
1 1/2	0.15%	3.27%	7.81%	8.40%
2	0.22%	5.05%	10.57%	16.81%
3	0.04%	1.89%	4.60%	10.92%
4	0.02%	1.39%	1.75%	3.36%
6	0.02%	0.99%	1.65%	4.20%
8	0.01%	0.36%	0.64%	0.84%
10	0.00%	0.07%	0.18%	0.00%
12	0.00%	0.01%	0.00%	0.84%
14	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%
Volume	66.51%	31.20%	2.11%	0.18%
0 - 2 Mcf	84.70%	22.50%	11.91%	14.65%
2 - 100 Mcf	14.11%	55.28%	43.57%	77.55%
100 - 2,000 Mcf	1.19%	20.93%	44.52%	7.79%
Over 2,000 Mcf	0.00%	1.29%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

2014 Data

Residential	Commercial	Industrial	Public Utilities	Total
Fiscal Year 2015				
410,553	28,118	537	37	439,245
34	19	0	0	53
2,355	2,734	255	28	5,372
0	0	0	0	-
637	1,159	85	10	1,891
893	1,791	115	20	2,819
152	670	50	13	885
83	492	19	4	598
76	351	18	5	450
28	128	7	1	164
3	26	2	0	31
1	4	0	1	6
0	0	0	0	-
414,815	35,492	1,088	119	451,514
2,771,668	345,371	12,350	1,306	3,130,696
461,698	848,437	45,164	6,914	1,362,213
38,796	321,216	46,154	695	406,861
0	19,778	0	0	19,778
3,272,163	1,534,801	103,668	8,915	4,919,547

2014 Data

Description	Residential	Commercial	Industrial	Public Utilities
Meters	91.91%	7.83%	0.23%	0.02%
5/8	99.13%	79.84%	49.81%	31.19%
3/4	0.00%	0.05%	0.00%	0.00%
1	0.47%	7.61%	23.28%	22.94%
1 1/4	0.00%	0.00%	0.00%	0.00%
1 1/2	0.13%	3.22%	7.54%	8.26%
2	0.18%	4.89%	10.50%	16.51%
3	0.03%	1.80%	4.58%	11.01%
4	0.02%	1.29%	1.91%	3.67%
6	0.02%	0.89%	1.62%	5.50%
8	0.01%	0.32%	0.57%	0.00%
10	0.00%	0.07%	0.19%	0.00%
12	0.00%	0.01%	0.00%	0.92%
14	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%
Volume	66.51%	31.20%	2.11%	0.18%
0 - 2 Mcf	84.70%	22.50%	11.91%	14.65%
2 - 100 Mcf	14.11%	55.28%	43.57%	77.55%
100 - 2,000 Mcf	1.19%	20.93%	44.52%	7.79%
Over 2,000 Mcf	0.00%	1.29%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

Residential	Commercial	Industrial	Public Utilities	Total
Fiscal Year 2014				
410,862	28,205	522	34	439,623
18	19	0	0	37
1,928	2,688	244	25	4,885
0	0	0	0	-
558	1,136	79	9	1,782
761	1,729	110	18	2,618
145	637	48	12	842
76	455	20	4	555
71	315	17	6	409
27	114	6	0	147
3	26	2	0	31
1	3	0	1	5
0	0	0	0	-
414,450	35,327	1,048	109	450,934
2,771,668	345,371	12,350	1,306	3,130,696
461,698	848,437	45,164	6,914	1,362,213
38,796	321,216	46,154	695	406,861
0	19,778	0	0	19,778
3,272,163	1,534,801	103,668	8,915	4,919,547

Sewer Bill Tabulation Data

Bill Tab - 2

SELECTED BILL TAB DISTRIBUTION

2016

	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only
Sewer Accounts Meters											
5/8	97.30%	99.99%	97.06%	48.97%	9.62%	4.13%	100.00%	100.00%	100.00%	64.94%	74.03%
3/4	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.30%
1	1.40%	0.01%	0.32%	12.95%	7.98%	5.37%	0.00%	0.00%	0.00%	7.79%	2.60%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.42%	0.00%	0.73%	6.11%	3.76%	4.13%	0.00%	0.00%	0.00%	5.19%	0.00%
2	0.53%	0.00%	0.55%	9.90%	14.79%	14.88%	0.00%	0.00%	0.00%	12.99%	11.69%
3	0.19%	0.00%	0.68%	8.99%	24.18%	28.93%	0.00%	0.00%	0.00%	1.30%	2.60%
4	0.09%	0.00%	0.34%	11.59%	25.82%	29.34%	0.00%	0.00%	0.00%	5.19%	2.60%
6	0.03%	0.00%	0.21%	1.36%	11.74%	9.50%	0.00%	0.00%	0.00%	2.60%	1.30%
8	0.01%	0.00%	0.11%	0.12%	1.64%	2.48%	0.00%	0.00%	0.00%	0.00%	2.60%
10	0.00%	0.00%	0.00%	0.00%	0.47%	1.24%	0.00%	0.00%	0.00%	0.00%	1.30%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
0 - 2 Mcf	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
2 - 100 Mcf	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
100 - 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Over 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2016 Data

	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only
Sewer Accounts Meters											
5/8	97.30%	99.99%	97.06%	48.97%	9.62%	4.13%	100.00%	100.00%	100.00%	64.94%	74.03%
3/4	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.30%
1	1.40%	0.01%	0.32%	12.95%	7.98%	5.37%	0.00%	0.00%	0.00%	7.79%	2.60%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.42%	0.00%	0.73%	6.11%	3.76%	4.13%	0.00%	0.00%	0.00%	5.19%	0.00%
2	0.53%	0.00%	0.55%	9.90%	14.79%	14.88%	0.00%	0.00%	0.00%	12.99%	11.69%
3	0.19%	0.00%	0.68%	8.99%	24.18%	28.93%	0.00%	0.00%	0.00%	1.30%	2.60%
4	0.09%	0.00%	0.34%	11.59%	25.82%	29.34%	0.00%	0.00%	0.00%	5.19%	2.60%
6	0.03%	0.00%	0.21%	1.36%	11.74%	9.50%	0.00%	0.00%	0.00%	2.60%	1.30%
8	0.01%	0.00%	0.11%	0.12%	1.64%	2.48%	0.00%	0.00%	0.00%	0.00%	2.60%
10	0.00%	0.00%	0.00%	0.00%	0.47%	1.24%	0.00%	0.00%	0.00%	0.00%	1.30%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
All Usage	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2015 Data

	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only
Sewer Accounts Meters											
5/8	97.47%	99.98%	98.06%	48.39%	11.61%	8.36%	100.00%	100.00%	100.00%	67.95%	81.36%
3/4	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.69%
1	1.25%	0.02%	0.22%	12.83%	7.39%	5.82%	0.00%	0.00%	0.00%	10.26%	1.69%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1 1/2	0.42%	0.01%	0.14%	6.24%	3.69%	4.00%	0.00%	0.00%	0.00%	3.85%	0.00%
2	0.52%	0.00%	0.26%	9.84%	14.51%	14.55%	0.00%	0.00%	0.00%	11.54%	6.78%
3	0.19%	0.00%	0.63%	9.42%	23.48%	25.82%	0.00%	0.00%	0.00%	1.28%	1.69%
4	0.09%	0.00%	0.34%	11.79%	24.01%	28.00%	0.00%	0.00%	0.00%	3.85%	0.00%
6	0.03%	0.00%	0.24%	1.30%	13.46%	9.45%	0.00%	0.00%	0.00%	1.28%	3.39%
8	0.01%	0.00%	0.12%	0.19%	1.58%	2.91%	0.00%	0.00%	0.00%	0.00%	3.39%
10	0.00%	0.00%	0.00%	0.00%	0.26%	1.09%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
All Usage	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2014 Data

	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only
Sewer Accounts Meters											
5/8	97.64%	99.98%	98.06%	48.39%	11.61%	8.36%	100.00%	7.69%	7.69%	67.95%	81.36%
3/4	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.69%	7.69%	0.00%	1.69%
1	1.14%	0.02%	0.22%	12.83%	7.39%	5.82%	0.00%	7.69%	7.69%	10.26%	1.69%
1 1/4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.69%	7.69%	0.00%	0.00%
1 1/2	0.41%	0.01%	0.14%	6.24%	3.69%	4.00%	0.00%	7.69%	7.69%	3.85%	0.00%
2	0.49%	0.00%	0.26%	9.84%	14.51%	14.55%	0.00%	7.69%	7.69%	11.54%	6.78%
3	0.18%	0.00%	0.63%	9.42%	23.48%	25.82%	0.00%	7.69%	7.69%	1.28%	1.69%
4	0.09%	0.00%	0.34%	11.79%	24.01%	28.00%	0.00%	7.69%	7.69%	3.85%	0.00%
6	0.03%	0.00%	0.24%	1.30%	13.46%	9.45%	0.00%	7.69%	7.69%	1.28%	3.39%
8	0.01%	0.00%	0.12%	0.19%	1.58%	2.91%	0.00%	7.69%	7.69%	0.00%	3.39%
10	0.00%	0.00%	0.00%	0.00%	0.26%	1.09%	0.00%	7.69%	7.69%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.69%	7.69%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.69%	7.69%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Volume											
All Usage	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Year Choose: 2016

General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only	Total
450,374	21,368	5,619	2,424	426	242	3	-	-	77	77	4,788,975
438,204	21,365	5,454	1,187	41	10	3	-	-	50	57	466,371
74	-	-	-	-	-	-	-	-	-	1	75
6,308	2	18	314	34	13	-	-	-	6	2	6,697
-	-	-	-	-	-	-	-	-	-	-	-
1,906	1	41	148	16	10	-	-	-	4	-	2,126
2,384	-	31	240	63	36	-	-	-	10	9	2,773
875	-	38	218	103	70	-	-	-	1	2	1,307
419	-	19	281	110	71	-	-	-	4	2	906
151	-	12	33	50	23	-	-	-	2	1	272
37	-	6	3	7	6	-	-	-	-	2	61
16	-	-	-	2	3	-	-	-	-	1	22
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
450,374	21,368	5,619	2,424	426	242	3	-	-	77	77	480,610
4,734,150	117,695	163,177	178,962	300,812	445,530	16	-	-	6,393	83,596	
4,788,975	117,695	163,177	178,962	300,812	445,530	16	-	-	6,393	83,596	6,085,156
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
4,788,975	117,695	163,177	178,962	300,812	445,530	16	-	-	6,393	83,596	6,085,156

General Service Fiscal Year:	Senior Citizens 2016	PHA	Charity and Schools	Hospital/Uni versity	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only	Total
438,203	21,365	5,454	1,187	41	10	3	0	0	50	57	466,370
74	0	0	0	0	0	0			0	1	75
6,308	2	18	314	34	13	0			6	2	6,697
-	0	0	0	0	0	0			0		-
1,906	1	41	148	16	10	0			4	0	2,126
2,384	0	31	240	63	36	0			10	9	2,773
875	0	38	218	103	70	0			1	2	1,307
419	0	19	281	110	71	0			4	2	906
151	0	12	33	50	23	0			2	1	272
37	0	6	3	7	6	0			0	2	61
16	0	0	0	2	3	0			0	1	22
-	0	0	0	0	0	0			0	0	-
-	0	0	0	0	0	0			0	0	-
450,373	21,368	5,619	2,424	426	242	3	0	0	77	77	480,609
4,644,658	100	100	100	100	100	100	100	100	100	100	4,645,658
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
4,644,658	100	100	100	100	100	100	100	100	100	100	4,645,658

General Service Fiscal Year:	Senior Citizens 2015	PHA	Charity and Schools	Hospital/Uni versity	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only	Total
431,101	19,509	5,767	1,264	44	23	2	0	0	53	48	457,811
62	0	0	0	0	0	0	0	0	0	1	63
5,544	3	13	335	28	16	0	0	0	8	1	5,948
-	0	0	0	0	0	0	0	0	0	0	-
1,846	1	8	163	14	11	0	0	0	3	0	2,046
2,295	0	15	257	55	40	0	0	0	9	4	2,675
854	0	37	246	89	71	0	0	0	1	1	1,299
400	0	20	308	91	77	0	0	0	3	0	899
144	0	14	34	51	26	0	0	0	1	2	272
34	0	7	5	6	8	0	0	0	0	2	62
16	0	0	0	1	3	0	0	0	0	0	20
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
442,296	19,513	5,881	2,612	379	275	2	0	0	78	59	471,095
4,805,727	100	100	100	100	100	100	100	100	100	100	4,806,727
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
4,805,727	100	100	100	100	100	100	100	100	100	100	4,806,727

General Service Fiscal Year:	Senior Citizens 2014	PHA	Charity and Schools	Hospital/Uni versity	Hand Bill	Scheduled	xxxxxxxxxx	xxxxxxxxxx	Fire Service	Sewer Only	Total
438,231	19,509	5,767	1,264	44	23	2	0	0	53	48	464,941
48	0	0	0	0	0	0	0	0	0	1	49
5,118	3	13	335	28	16	0	0	0	8	1	5,522
-	0	0	0	0	0	0	0	0	0	0	0
1,819	1	8	163	14	11	0	0	0	3	0	2,019
2,218	0	15	257	55	40	0	0	0	9	4	2,598
822	0	37	246	89	71	0	0	0	1	1	1,267
384	0	20	308	91	77	0	0	0	3	0	883
139	0	14	34	51	26	0	0	0	1	2	267
30	0	7	5	6	8	0	0	0	0	2	58
16	0	0	0	1	3	0	0	0	0	0	20
-	0	0	0	0	0	0	0	0	0	0	0
-	0	0	0	0	0	0	0	0	0	0	0
448,825	19,513	5,881	2,612	379	275	2	0	0	78	59	477,624
4,721,768	100	100	100	100	100	100	100	100	100	100	4,722,768
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
-	0	0	0	0	0	0	0	0	0	0	-
4,721,768	100	100	100	100	100	100	100	100	100	100	4,722,768

Sewer **Bill Tab - 2b**

SELECTED BILL TAB DISTRIBUTION Year Choose: 2016

	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
					Year Choose: 2016				
Meters	91.99%	7.75%	0.23%	0.03%	414,306	34,901	1,032	135	450,374
5/8	98.86%	80.36%	50.78%	35.56%	409,586	28,046	524	48	438,204
3/4	0.01%	0.03%	0.00%	0.00%	62	12	-	-	74
1	0.79%	7.89%	23.74%	20.74%	3,281	2,754	245	28	6,308
1 1/4	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
1 1/2	0.16%	3.34%	7.75%	8.15%	649	1,166	80	11	1,906
2	0.13%	4.95%	10.85%	16.30%	524	1,726	112	22	2,384
3	0.03%	1.91%	4.84%	10.37%	143	668	50	14	875
4	0.01%	1.01%	1.26%	4.44%	46	354	13	6	419
6	0.00%	0.36%	0.78%	2.96%	12	127	8	4	151
8	0.00%	0.09%	0.00%	1.48%	3	32	-	2	37
10	0.00%	0.05%	0.00%	0.00%	-	16	-	-	16
12	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
14	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	414,306	34,901	1,032	135	450,374
Volume	67.96%	30.10%	1.76%	0.18%	3,217,429	1,425,184	83,110	8,427	4,734,150
0 - 2 Mcf	100.00%	100.00%	100.00%	100.00%	3,126,484	1,546,799	104,522	11,169	4,788,975
2 - 100 Mcf	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
100 - 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Over 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	3,126,484	1,546,799	104,522	11,169	4,788,975

2016 Data

	Residential	Commercial	Industrial	Public Utilities
Meters	91.99%	7.75%	0.23%	0.03%
5/8	98.86%	80.36%	50.78%	35.56%
3/4	0.01%	0.03%	0.00%	0.00%
1	0.79%	7.89%	23.74%	20.74%
1 1/4	0.00%	0.00%	0.00%	0.00%
1 1/2	0.16%	3.34%	7.75%	8.15%
2	0.13%	4.95%	10.85%	16.30%
3	0.03%	1.91%	4.84%	10.37%
4	0.01%	1.01%	1.26%	4.44%
6	0.00%	0.36%	0.78%	2.96%
8	0.00%	0.09%	0.00%	1.48%
10	0.00%	0.05%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%
Volume	67.43%	30.88%	1.47%	0.23%
All Usage	100.00%	100.00%	100.00%	100.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

Fiscal Year:	Residential	Commercial	Industrial	Public Utilities	Total
2016					
	409,585	28,046	524	48	438,203
	62	12	0	0	74
	3,281	2,754	245	28	6,308
	0	0	0	0	-
	649	1,166	80	11	1,906
	524	1,726	112	22	2,384
	143	668	50	14	875
	46	354	13	6	419
	12	127	8	4	151
	3	32	0	2	37
	0	16	0	0	16
	0	0	0	0	-
	0	0	0	0	-
	414,305	34,901	1,032	135	450,373
	3,131,811	1,434,045	68,350	10,451	4,644,658
	0	0	0	0	-
	0	0	0	0	-
	0	0	0	0	-
	3,131,811	1,434,045	68,350	10,451	4,644,658

2015 Data

	Residential	Commercial	Industrial	Public Utilities
Meters	91.89%	7.85%	0.23%	0.03%
5/8	99.04%	80.72%	50.82%	35.48%
3/4	0.01%	0.04%	0.00%	0.00%
1	0.63%	7.77%	23.92%	22.58%
1 1/4	0.00%	0.00%	0.00%	0.00%
1 1/2	0.15%	3.28%	8.00%	8.06%
2	0.12%	4.86%	10.61%	16.13%
3	0.03%	1.88%	4.73%	10.48%
4	0.01%	0.98%	1.25%	4.03%
6	0.00%	0.35%	0.68%	2.42%
8	0.00%	0.09%	0.00%	0.81%
10	0.00%	0.05%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%
Volume	67.96%	30.10%	1.76%	0.18%
All Usage	100.00%	100.00%	100.00%	100.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

Fiscal Year:	Residential	Commercial	Industrial	Public Utilities	Total
2015					
	402,517	28,013	527	44	431,101
	48	14	0	0	62
	2,571	2,697	248	28	5,544
	0	0	0	0	-
	615	1,138	83	10	1,846
	480	1,685	110	20	2,295
	141	651	49	13	854
	43	339	13	5	400
	12	122	7	3	144
	3	30	0	1	34
	0	16	0	0	16
	0	0	0	0	-
	0	0	0	0	-
	406,430	34,705	1,037	124	442,296
	3,266,074	1,446,732	84,367	8,554	4,805,727
	0	0	0	0	-
	0	0	0	0	-
	0	0	0	0	-
	3,266,074	1,446,732	84,367	8,554	4,805,727

2014 Data

	Residential	Commercial	Industrial	Public Utilities
Meters	92.02%	7.71%	0.23%	0.03%
5/8	99.16%	81.16%	51.05%	31.62%
3/4	0.01%	0.04%	0.00%	0.00%
1	0.53%	7.67%	24.24%	23.08%
1 1/4	0.00%	0.00%	0.00%	0.00%
1 1/2	0.15%	3.22%	7.98%	8.55%
2	0.11%	4.73%	10.36%	16.24%
3	0.03%	1.80%	4.47%	11.11%
4	0.01%	0.94%	1.24%	3.42%
6	0.00%	0.33%	0.67%	5.13%
8	0.00%	0.08%	0.00%	0.85%
10	0.00%	0.05%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%
Volume	69.17%	28.86%	1.79%	0.18%
All Usage	100.00%	100.00%	100.00%	100.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
xxxxxx	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

Fiscal Year:	Residential	Commercial	Industrial	Public Utilities	Total
2014					
	409,555	28,102	537	37	438,231
	33	15	0	0	48
	2,181	2,655	255	27	5,118
	0	0	0	0	-
	610	1,115	84	10	1,819
	453	1,637	109	19	2,218
	140	622	47	13	822
	43	324	13	4	384
	12	114	7	6	139
	3	26	0	1	30
	0	16	0		16
	0	0			-
	0	0	0	0	-
	413,030	34,626	1,052	117	448,825
	3,266,074	1,362,773	84,367	8,554	4,721,768
	0	0	0	0	-
	0	0	0	0	-
	0	0	0	0	-
	3,266,074	1,362,773	84,367	8,554	4,721,768

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OTHER REVENUE

Index	Description	Table
Other Revenue	Other Revenue Worksheet	
Other Revenue - 1	Water System Other Revenue	TABLE W-1
Other Revenue - 2	Sewer System Other Revenue	TABLE WW-1C
Other Revenue - 3	Combined System Other Revenue	

Description	Historical					Study Period						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water System Other Revenue											Other Revenue - 1	
Penalties - Percentage of Billings	1.41%	1.38%	1.39%	1.38%	1.55%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Penalties	3,075	3,078	3,269	3,390	3,792	4,020	4,156	4,127	4,092	4,057	4,025	3,992
Misc City Revenues	555	473	784	703	840	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Other	2,799	3,911	3,881	5,611	5,010	4,100	4,300	5,050	5,450	5,650	5,650	5,650
State & Federal Grants	3,192	2,727	1,299	1,083	944	1,400	1,000	1,000	1,000	1,000	1,000	1,000
Permits Issued by L&I (L&I)	1,199	1,592	1,673	1,920	1,898	1,495	1,260	1,260	1,260	1,260	1,260	1,260
Miscellaneous (Procurement)	131	142	198	164	179	250	250	250	250	250	250	250
City & UESF Grants	(724)	(1,274)	(1,455)	(1,570)	(1,601)	(1,760)	(286)	(286)	(286)	(286)	(286)	(286)
Affordability Program Discount Adjustment	-	-	-	-	-	-	(1,716)	(4,312)	(6,028)	(7,480)	(7,480)	(7,480)
Release from Debt Service Reserve	-	-	-	-	-	3,678	6,470	-	-	-	-	-
Total	10,227	10,649	9,649	11,301	11,062	15,484	17,734	9,389	8,038	6,751	6,719	6,686

Notes: See Assumptions-3

Description	Historical					Study Period						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer System Other Revenue												Other Revenue - 2
Penalties - Percentage of Billings	1.41%	1.38%	1.39%	1.38%	1.55%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Penalties	4,617	4,632	4,941	5,096	5,682	5,876	6,121	6,089	6,045	5,998	5,953	5,908
Misc City Revenues	1,109	945	1,568	1,406	1,680	-	-	-	-	-	-	-
Other	2,799	3,910	3,881	5,612	5,010	4,100	4,300	5,050	5,450	5,650	5,650	5,650
State & Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Permits Issued by L&I (L&I)	1,199	1,592	1,673	1,920	1,897	1,495	1,260	1,260	1,260	1,260	1,260	1,260
Miscellaneous (Procurement)	130	141	198	163	179	250	250	250	250	250	250	250
City & UESF Grants	(1,087)	(1,918)	(2,199)	(2,360)	(2,399)	(2,240)	(364)	(364)	(364)	(364)	(364)	(364)
Affordability Program Discount Adjustment	-	-	-	-	-	-	(2,184)	(5,488)	(7,672)	(9,520)	(9,520)	(9,520)
Release from Debt Service Reserve	-	-	-	-	-	7,322	12,530	-	-	-	-	-
Total	8,767	9,302	10,062	11,837	12,049	16,803	21,913	6,797	4,969	3,274	3,229	3,184

Notes: See Assumptions-3

Description	Historical					Study Period						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Combined System Other Revenue											Other Revenue - 3	
Penalties - Percentage of Billings	1.40%	1.30%	1.31%	1.37%	1.44%	1.44%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
Penalties	7,692	7,710	8,210	8,486	9,474	9,897	10,277	10,217	10,138	10,055	9,978	9,901
Misc City Revenues	1,664	1,418	2,352	2,109	2,520	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Other	5,598	7,821	7,762	11,223	10,020	8,200	8,600	10,100	10,900	11,300	11,300	11,300
State & Federal Grants leave	3,192	2,727	1,299	1,083	944	1,400	1,000	1,000	1,000	1,000	1,000	1,000
Permits Issued by L&I (L&I) leave	2,398	3,184	3,346	3,840	3,795	2,990	2,520	2,520	2,520	2,520	2,520	2,520
Miscellaneous (Employee Benefit + Procurement)	261	283	396	327	358	500	500	500	500	500	500	500
City & UESF Grants	(1,811)	(3,192)	(3,654)	(3,930)	(4,000)	(4,000)	(650)	(650)	(650)	(650)	(650)	(650)
Affordability Program Discount Adjustment	-	-	-	-	-	-	(3,900)	(9,800)	(13,700)	(17,000)	(17,000)	(17,000)
Release from Debt Service Reserve	0	0	0	0	0	11,000	19,000	-	-	-	-	-
Total	18,994	19,951	19,711	23,138	23,111	32,287	39,647	16,187	13,008	10,025	9,948	9,871

Notes: See Assumptions - 3 and DS - 7 (Cumulative Revenue Bond Debt Service)

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DIRECT O&M

Index	Description	Table
Direct O&M	Direct Water Department O&M Worksheet	
Direct O&M - 1	PWD Direct O&M	
Direct O&M - 2	PWD O&M Adjustments	
Direct O&M - 3	PWD Adjusted O&M	TABLE C-6
Direct O&M - 4	Water System O&M	TABLE W-2
Direct O&M - 5	Wastewater System O&M	TABLE WW-2
Direct O&M - 6	Liquidated Encumbrances	TABLE C-6, TABLE W-2, and TABLE W-2
Direct O&M - 7	Detailed Allocation Finance & Admin	
Direct O&M - 8	Detailed Allocation of Operations Class 100	
Direct O&M - 9A	Detailed Allocation of Operations Power	
Direct O&M - 9B	Detailed Allocation of Operations Gas	
Direct O&M - 10	Detailed Allocation of Operations Class 200 Excl. Power and Gas	
Direct O&M - 11	Detailed Allocation of Operations Chemicals	
Direct O&M - 12	Detailed Allocation of Operations Class 300 Excl. Chemicals	
Direct O&M - 13	Detailed Allocation of Operations Class 400	
Direct O&M - 14	PWD Projected Direct O&M Budget	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
PWD Direct O&M													Direct O&M - 1	
Human Resources and Administration														
100	Salaries & Wages	Labor	\$ 6,591,224	\$ 6,911,366	\$ 7,650,763	\$ 8,502,816	\$ 8,190,963	\$ 7,948,131	\$ 9,403,454	\$ 9,638,541	\$ 9,927,697	\$ 10,225,528	\$ 10,532,294	\$ 10,848,262
200	Services	Other 200	2,676,000	2,019,108	3,277,947	4,562,319	3,406,310	3,710,260	4,446,567	4,597,750	4,754,074	4,915,712	5,082,847	5,255,663
300	Materials and Supplies	Other 300	474,539	575,822	632,835	725,233	660,930	664,311	677,510	680,898	684,302	687,723	691,162	694,618
400	Equipment	Other 400	111,049	46,389	140,816	413,078	188,501	783,911	374,277	379,143	384,072	389,065	394,122	399,246
500	Indemnities	Constant	-	-	-	-	-	-	0	0	0	0	0	
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	
Subtotal Human Resources and Administration			\$ 9,852,812	\$ 9,552,685	\$ 11,702,361	\$ 14,203,446	\$ 12,446,704	\$ 13,106,613	\$ 14,901,809	\$ 15,296,331	\$ 15,750,144	\$ 16,218,028	\$ 16,700,425	\$ 17,197,790
Finance														
100	Salaries & Wages	Labor	\$ 1,388,706	\$ 1,472,571	\$ 1,849,144	\$ 2,170,853	\$ 2,273,794	\$ 2,725,589	\$ 2,700,221	\$ 2,767,726	\$ 2,850,758	\$ 2,936,281	\$ 3,024,369	\$ 3,115,100
200	Services	Other 200	9,206,767	5,577,954	4,366,100	4,811,153	1,961,689	8,384,056	3,653,559	3,777,780	3,906,225	4,039,036	4,176,364	4,318,360
2xx	SMIP/GARP	Constant	5,025,000	4,925,776	5,020,143	11,598,134	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	
300	Materials and Supplies	Other 300	598,960	383,299	124,596	23,023	16,054	60,298	7,204	7,240	7,276	7,312	7,349	
400	Equipment	Other 400	527,642	244,778	521,252	-	-	-	-	-	-	-	-	
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	
800	Transfers	Transfers	9,074,729	10,792,914	7,714,419	6,244,621	8,100,186	12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	
Subtotal Finance			\$ 25,821,804	\$ 23,397,293	\$ 19,595,654	\$ 24,847,784	\$ 27,351,723	\$ 38,267,007	\$ 27,791,798	\$ 28,144,331	\$ 28,520,633	\$ 28,907,913	\$ 29,306,497	\$ 29,716,722
Planning and Engineering														
100	Salaries & Wages	Labor	\$ 1,028,722	\$ 1,057,108	\$ 1,043,846	\$ 1,199,514	\$ 1,075,392	\$ 1,187,885	\$ 1,711,983	\$ 1,754,783	\$ 1,807,426	\$ 1,861,649	\$ 1,917,499	\$ 1,975,024
200	Services	Other 200	259,551	235,838	155,719	297,188	237,504	346,543	554,721	573,582	593,084	613,249	634,099	
300	Materials and Supplies	Other 300	133,233	191,888	105,252	102,067	54,541	46,356	78,576	78,969	79,364	79,761	80,160	
400	Equipment	Other 400	28,435	30,333	27,449	14,614	3,873	21,649	9,612	9,737	9,863	9,991	10,121	
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	
Subtotal Planning and Engineering			\$ 1,449,941	\$ 1,515,167	\$ 1,332,266	\$ 1,613,383	\$ 1,371,310	\$ 1,602,433	\$ 2,354,893	\$ 2,417,070	\$ 2,489,737	\$ 2,564,650	\$ 2,641,878	\$ 2,721,495
Operations														
100	Salaries & Wages	Labor	\$ 62,092,417	\$ 63,390,240	\$ 65,710,338	\$ 71,789,745	\$ 71,318,230	\$ 74,937,545	\$ 80,208,101	\$ 82,213,304	\$ 84,679,703	\$ 87,220,094	\$ 89,836,697	\$ 92,531,798
200	Services	Other 200	46,354,228	50,321,374	51,604,806	51,086,665	54,441,610	65,263,449	62,531,116	64,657,174	66,855,518	69,128,605	71,478,978	
220	Power	Energy	24,841,360	24,375,674	21,440,579	20,427,534	20,071,556	18,223,847	18,384,858	18,384,858	18,384,858	18,936,404	19,504,496	
221	Gas	Gas	3,545,811	3,458,000	3,561,029	4,190,988	4,013,404	3,176,528	4,735,091	4,924,494	4,924,494	5,072,229	5,224,396	
300	Materials and Supplies	Other 300	15,651,859	16,475,057	14,625,464	14,703,881	15,057,143	17,507,515	16,552,992	16,635,757	16,718,935	16,802,530	16,886,543	
307	Chemicals	Chemicals	20,239,205	22,602,203	24,446,114	22,324,969	21,075,520	18,596,601	20,527,623	21,902,973	22,735,286	22,962,639	23,192,265	
400	Equipment	Other 400	1,356,406	994,870	1,172,215	1,219,613	1,486,260	964,973	1,588,590	1,609,242	1,630,162	1,651,354	1,672,821	
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	
Subtotal Operations			\$ 174,081,286	\$ 181,617,418	\$ 182,560,545	\$ 185,743,395	\$ 187,463,723	\$ 198,670,458	\$ 204,528,370	\$ 210,327,801	\$ 215,928,956	\$ 221,773,855	\$ 227,796,196	\$ 234,001,551
Planning & Environmental Services														
100	Salaries & Wages	Labor	\$ 9,163,710	\$ 10,315,992	\$ 11,080,774	\$ 12,135,854	\$ 12,946,501	\$ 13,465,491	\$ 14,420,404	\$ 14,780,914	\$ 15,224,341	\$ 15,681,071	\$ 16,151,504	\$ 16,636,049
200	Services	Other 200	16,447,254	18,442,417	17,411,374	22,388,075	22,364,997	23,055,720	17,624,827	18,224,071	18,843,690	19,484,375	20,146,844	
300	Materials and Supplies	Other 300	962,010	867,520	1,015,983	989,788	1,101,182	1,448,059	1,083,396	1,088,813	1,094,258	1,099,729	1,105,227	
400	Equipment	Other 400	55,839	470,735	556,793	187,954	285,682	348,946	269,740	273,246	276,799	280,397	284,042	
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	
Subtotal Planning & Environmental Services			\$ 26,628,813	\$ 30,096,664	\$ 30,064,924	\$ 35,701,671	\$ 36,698,362	\$ 38,318,216	\$ 33,398,367	\$ 34,367,045	\$ 35,439,087	\$ 36,545,573	\$ 37,687,617	\$ 38,866,374

Cost Center/Expense Class	Escalation Reference	Historical					Study Period							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Public Affairs														
100	Salaries & Wages	Labor	\$ 2,110,095	\$ 2,110,697	\$ 2,260,265	\$ 2,644,067	\$ 2,354,115	\$ 2,420,693	\$ 4,694,141	\$ 4,811,495	\$ 4,955,839	\$ 5,104,515	\$ 5,257,650	\$ 5,415,380
200	Services	Other 200	4,525,982	6,591,039	7,244,654	8,001,034	8,040,229	7,167,949	7,554,971	7,811,840	8,077,442	8,352,075	8,636,046	8,929,671
300	Materials and Supplies	Other 300	206,542	219,959	168,011	156,358	279,935	264,012	313,998	315,568	317,146	318,732	320,325	321,927
400	Equipment	Other 400	2,688	17,734	1,134	13,757	27,829	681	20,793	21,063	21,337	21,615	21,896	22,180
500	Indemnities	Constant	-	-	-	-	-	400,000	500,000	500,000	500,000	500,000	500,000	500,000
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Affairs			\$ 6,845,307	\$ 8,939,429	\$ 9,674,064	\$ 10,815,216	\$ 10,702,108	\$ 10,253,335	\$ 13,083,903	\$ 13,459,966	\$ 13,871,765	\$ 14,296,936	\$ 14,735,917	\$ 15,189,158
PWD Operating and Maintenance Expenses Summary														
100	Salaries & Wages		\$ 82,374,874	\$ 85,257,975	\$ 89,595,130	\$ 98,442,849	\$ 98,158,995	\$ 102,685,334	\$ 113,138,305	\$ 115,966,762	\$ 119,445,765	\$ 123,029,138	\$ 126,720,012	\$ 130,521,613
200	Services		79,469,782	83,187,730	84,060,600	91,146,434	90,452,339	107,927,977	96,365,761	99,642,197	103,030,032	106,533,053	110,155,177	113,900,453
220	Power		24,841,360	24,375,674	21,440,579	20,427,534	20,071,556	18,223,847	18,384,858	18,384,858	18,384,858	18,936,404	19,504,496	20,089,631
221	Gas		3,545,811	3,458,000	3,561,029	4,190,988	4,013,404	3,176,528	4,735,091	4,924,494	4,924,494	5,072,229	5,224,396	5,381,128
2xx	SMIP/GARP		5,025,000	4,925,776	5,020,143	11,598,134	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies		18,027,143	18,713,545	16,672,141	16,700,350	17,169,785	19,990,551	18,713,676	18,807,245	18,901,281	18,995,787	19,090,766	19,186,220
307	Chemicals		20,239,205	22,602,203	24,446,114	22,324,969	21,075,520	18,596,601	20,527,623	21,902,973	22,735,286	22,962,639	23,192,265	23,424,188
400	Equipment		2,082,059	1,804,839	2,419,659	1,849,016	1,992,145	2,120,160	2,263,012	2,292,431	2,322,232	2,352,421	2,383,003	2,413,982
500	Indemnities		-	-	-	-	-	400,000	500,000	500,000	500,000	500,000	500,000	500,000
800	Transfers		9,074,729	10,792,914	7,714,419	6,244,621	8,100,186	12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Total PWD Operating and Maintenance Expenses Summary			\$ 244,679,963	\$ 255,118,655	\$ 254,929,814	\$ 272,924,895	\$ 276,033,930	\$ 300,218,062	\$ 296,059,139	\$ 304,012,544	\$ 312,000,322	\$ 320,306,955	\$ 328,868,530	\$ 337,693,089
CHECK			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
						89.5%	88.3%	92.6%	88.5%	94.1%	89.6%			
PWD Operating and Maintenance Expenses Summary - Annual Increase														
100	Salaries & Wages		-0.16%	3.50%	5.09%	9.88%	-0.29%	4.61%	10.18%	2.50%	3.00%	3.00%	3.00%	3.00%
200	Services		7.69%	4.68%	1.05%	8.43%	-0.76%	19.32%	-10.71%	3.40%	3.40%	3.40%	3.40%	3.40%
220	Power		-9.04%	-1.87%	-12.04%	-4.72%	-1.74%	-9.21%	0.88%	0.00%	0.00%	3.00%	3.00%	3.00%
221	Gas		0.00%	-2.48%	2.98%	17.69%	-4.24%	-20.85%	49.06%	4.00%	0.00%	3.00%	3.00%	3.00%
2xx	SMIP/GARP		0.00%	-1.97%	1.92%	131.03%	29.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies		18.79%	3.81%	-10.91%	0.17%	2.81%	16.43%	-6.39%	0.50%	0.50%	0.50%	0.50%	0.50%
307	Chemicals		4.32%	11.68%	8.16%	-8.68%	-5.60%	-11.76%	10.38%	6.70%	3.80%	1.00%	1.00%	1.00%
400	Equipment		33.12%	-13.31%	34.07%	-23.58%	7.74%	6.43%	6.74%	1.30%	1.30%	1.30%	1.30%	1.30%
500	Indemnities		0.00%						25.00%	0.00%	0.00%	0.00%	0.00%	0.00%
800	Transfers		17.03%	18.93%	-28.52%	-19.05%	29.71%	49.34%	-46.84%	2.50%	2.50%	2.50%	2.50%	2.50%
Total PWD Operating and Maintenance Expenses Summary - Annual			6.49%	4.27%	-0.07%	7.06%	1.14%	8.76%	-1.39%	2.69%	2.63%	2.66%	2.67%	2.68%
PWD Operating and Maintenance Expenses Summary - 2 Year Average Increase														
100	Salaries & Wages				4.29%	7.45%	4.67%	2.13%	7.36%	6.27%	2.75%	3.00%	3.00%	3.00%
200	Services				2.85%	4.67%	3.73%	8.82%	3.22%	-3.92%	3.40%	3.40%	3.40%	3.40%
220	Power				-7.10%	-8.46%	-3.25%	-5.55%	-4.29%	0.44%	0.00%	1.49%	3.00%	3.00%
221	Gas				0.21%	10.09%	6.16%	-12.94%	8.62%	24.51%	1.98%	1.49%	3.00%	3.00%
2xx	SMIP/GARP				0.00%	32.16%	44.95%	13.72%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies				-3.83%	-5.53%	1.48%	9.41%	4.40%	-3.00%	0.50%	0.50%	0.50%	0.50%
307	Chemicals				9.90%	-0.62%	-7.15%	-8.73%	-1.31%	8.53%	5.24%	2.39%	1.00%	1.00%
400	Equipment				7.80%	1.22%	-9.26%	7.08%	6.58%	3.98%	1.30%	1.30%	1.30%	1.30%
500	Indemnities				0.00%	0.00%	0.00%				7.72%	0.00%	0.00%	0.00%
800	Transfers				-7.80%	-23.94%	2.47%	39.18%	-10.90%	-26.18%	2.50%	2.50%	2.50%	2.50%
Total PWD Operating and Maintenance Expenses Summary - 2 Year Average Increase					2.07%	3.43%	4.06%	4.88%	3.56%	0.63%	2.66%	2.64%	2.67%	2.68%

Cost Center/Expense Class	Escalation Reference	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
PWD O&M Adjustments												Direct O&M - 2
Human Resources and Administration												
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-
Subtotal Human Resources and Administration							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance												
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-
2xx	SMIP/GARP						-	5,000,000	10,000,000	10,000,000	10,000,000	10,000,000
300	Materials and Supplies						-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-
Subtotal Finance							\$ -	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
Planning and Engineering												
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-
Subtotal Planning and Engineering							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations												
100	Salaries & Wages						\$ -	\$ -	\$ 445,000	\$ 899,000	\$ 1,366,000	\$ 1,847,000
200	Services						-	-	-	-	-	-
220	Power						-	-	-	-	-	-
221	Gas						-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-
Subtotal Operations							\$ -	\$ -	\$ 445,000	\$ 899,000	\$ 1,366,000	\$ 1,847,000
Planning & Environmental Services												
100	Salaries & Wages						\$ -	\$ -	\$ 138,800	\$ 286,000	\$ 368,000	\$ 379,000
200	Services						-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-
Subtotal Planning & Environmental Services							\$ -	\$ -	\$ 138,800	\$ 286,000	\$ 368,000	\$ 379,000

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Public Affairs													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Public Affairs							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD Operating and Maintenance Expenses Adjustments Summary													
100	Salaries & Wages						\$ -	\$ -	\$ 583,800	\$ 1,185,000	\$ 1,734,000	\$ 2,226,000	\$ 2,292,500
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
221	Gas						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	5,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Operating and Maintenance Expenses Adjustments Summary							\$ -	\$ 5,000,000	\$ 10,583,800	\$ 11,185,000	\$ 11,734,000	\$ 12,226,000	\$ 12,292,500
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
PWD Adjusted O&M													Direct O&M - 3
Human Resources and Administration													
100	Salaries & Wages	\$ 6,591,224	\$ 6,911,366	\$ 7,650,763	\$ 8,502,816	\$ 8,190,963	\$ 7,948,131	\$ 9,403,454	\$ 9,638,541	\$ 9,927,697	\$ 10,225,528	\$ 10,532,294	\$ 10,848,262
200	Services	2,676,000	2,019,108	3,277,947	4,562,319	3,406,310	3,710,260	4,446,567	4,597,750	4,754,074	4,915,712	5,082,847	5,255,663
300	Materials and Supplies	474,539	575,822	632,835	725,233	660,930	664,311	677,510	680,898	684,302	687,723	691,162	694,618
400	Equipment	111,049	46,389	140,816	413,078	188,501	783,911	374,277	379,143	384,072	389,065	394,122	399,246
500	Indemnities	-	-	-	-	-	-	0	0	0	0	0	0
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration		\$ 9,852,812	\$ 9,552,685	\$ 11,702,361	\$ 14,203,446	\$ 12,446,704	\$ 13,106,613	\$ 14,901,809	\$ 15,296,331	\$ 15,750,144	\$ 16,218,028	\$ 16,700,425	\$ 17,197,790
Finance													
100	Salaries & Wages	\$ 1,388,706	\$ 1,472,571	\$ 1,849,144	\$ 2,170,853	\$ 2,273,794	\$ 2,725,589	\$ 2,700,221	\$ 2,767,726	\$ 2,850,758	\$ 2,936,281	\$ 3,024,369	\$ 3,115,100
200	Services	9,206,767	5,577,954	4,366,100	4,811,153	1,961,689	8,384,056	3,653,559	3,777,780	3,906,225	4,039,036	4,176,364	4,318,360
2xx	SMIP/GARP	5,025,000	4,925,776	5,020,143	11,598,134	15,000,000	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
300	Materials and Supplies	598,960	383,299	124,596	23,023	16,054	60,298	7,204	7,240	7,276	7,312	7,349	7,386
400	Equipment	527,642	244,778	521,252	-	-	-	-	-	-	-	-	-
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	9,074,729	10,792,914	7,714,419	6,244,621	8,100,186	12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Subtotal Finance		\$ 25,821,804	\$ 23,397,293	\$ 19,595,654	\$ 24,847,784	\$ 27,351,723	\$ 38,267,007	\$ 32,791,798	\$ 38,144,331	\$ 38,520,633	\$ 38,907,913	\$ 39,306,497	\$ 39,716,722
Planning and Engineering													
100	Salaries & Wages	\$ 1,028,722	\$ 1,057,108	\$ 1,043,846	\$ 1,199,514	\$ 1,075,392	\$ 1,187,885	\$ 1,711,983	\$ 1,754,783	\$ 1,807,426	\$ 1,861,649	\$ 1,917,499	\$ 1,975,024
200	Services	259,551	235,838	155,719	297,188	237,504	346,543	554,721	573,582	593,084	613,249	634,099	655,658
300	Materials and Supplies	133,233	191,888	105,252	102,067	54,541	46,356	78,576	78,969	79,364	79,761	80,160	80,560
400	Equipment	28,435	30,333	27,449	14,614	3,873	21,649	9,612	9,737	9,863	9,991	10,121	10,253
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning and Engineering		\$ 1,449,941	\$ 1,515,167	\$ 1,332,266	\$ 1,613,383	\$ 1,371,310	\$ 1,602,433	\$ 2,354,893	\$ 2,417,070	\$ 2,489,737	\$ 2,564,650	\$ 2,641,878	\$ 2,721,495
Operations													
100	Salaries & Wages	\$ 62,092,417	\$ 63,390,240	\$ 65,710,338	\$ 71,789,745	\$ 71,318,230	\$ 74,937,545	\$ 80,208,101	\$ 82,658,304	\$ 85,578,703	\$ 88,586,094	\$ 91,683,697	\$ 94,433,798
200	Services	46,354,228	50,321,374	51,604,806	51,086,665	54,441,610	65,263,449	62,531,116	64,657,174	66,855,518	69,128,605	71,478,978	73,909,263
220	Power	24,841,360	24,375,674	21,440,579	20,427,534	20,071,556	18,223,847	18,384,858	18,384,858	18,384,858	18,936,404	19,504,496	20,089,631
221	Gas	3,545,811	3,458,000	3,561,029	4,190,988	4,013,404	3,176,528	4,735,091	4,924,494	4,924,494	5,072,229	5,224,396	5,381,128
300	Materials and Supplies	15,651,859	16,475,057	14,625,464	14,703,881	15,057,143	17,507,515	16,552,992	16,635,757	16,718,935	16,802,530	16,886,543	16,970,975
307	Chemicals	20,239,205	22,602,203	24,446,114	22,324,969	21,075,520	18,596,601	20,527,623	21,902,973	22,735,286	22,962,639	23,192,265	23,424,188
400	Equipment	1,356,406	994,870	1,172,215	1,219,613	1,486,260	964,973	1,588,590	1,609,242	1,630,162	1,651,354	1,672,821	1,694,568
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Operations		\$ 174,081,286	\$ 181,617,418	\$ 182,560,545	\$ 185,743,395	\$ 187,463,723	\$ 198,670,458	\$ 204,528,370	\$ 210,772,801	\$ 216,827,956	\$ 223,139,855	\$ 229,643,196	\$ 235,903,551
Planning & Environmental Services													
100	Salaries & Wages	\$ 9,163,710	\$ 10,315,992	\$ 11,080,774	\$ 12,135,854	\$ 12,946,501	\$ 13,465,491	\$ 14,420,404	\$ 14,919,714	\$ 15,510,341	\$ 16,049,071	\$ 16,530,504	\$ 17,026,549
200	Services	16,447,254	18,442,417	17,411,374	22,388,075	22,364,997	23,055,720	17,624,827	18,224,071	18,843,690	19,484,375	20,146,844	20,831,837
300	Materials and Supplies	962,010	867,520	1,015,983	989,788	1,101,182	1,448,059	1,083,396	1,088,813	1,094,258	1,099,729	1,105,227	1,110,754
400	Equipment	55,839	470,735	556,793	187,954	285,682	348,946	269,740	273,246	276,799	280,397	284,042	287,735
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning & Environmental Services		\$ 26,628,813	\$ 30,096,664	\$ 30,064,924	\$ 35,701,671	\$ 36,698,362	\$ 38,318,216	\$ 33,398,367	\$ 34,505,845	\$ 35,725,087	\$ 36,913,573	\$ 38,066,617	\$ 39,256,874

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Public Affairs													
100	Salaries & Wages	\$ 2,110,095	\$ 2,110,697	\$ 2,260,265	\$ 2,644,067	\$ 2,354,115	\$ 2,420,693	\$ 4,694,141	\$ 4,811,495	\$ 4,955,839	\$ 5,104,515	\$ 5,257,650	\$ 5,415,380
200	Services	4,525,982	6,591,039	7,244,654	8,001,034	8,040,229	7,167,949	7,554,971	7,811,840	8,077,442	8,352,075	8,636,046	8,929,671
300	Materials and Supplies	206,542	219,959	168,011	156,358	279,935	264,012	313,998	315,568	317,146	318,732	320,325	321,927
400	Equipment	2,688	17,734	1,134	13,757	27,829	681	20,793	21,063	21,337	21,615	21,896	22,180
500	Indemnities	-	-	-	-	-	400,000	500,000	500,000	500,000	500,000	500,000	500,000
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Affairs		\$ 6,845,307	\$ 8,939,429	\$ 9,674,064	\$ 10,815,216	\$ 10,702,108	\$ 10,253,335	\$ 13,083,903	\$ 13,459,966	\$ 13,871,765	\$ 14,296,936	\$ 14,735,917	\$ 15,189,158
PWD Operating and Maintenance Expenses Summary													
100	Salaries & Wages	\$ 82,374,874	\$ 85,257,975	\$ 89,595,130	\$ 98,442,849	\$ 98,158,995	\$ 102,685,334	\$ 113,138,305	\$ 116,550,562	\$ 120,630,765	\$ 124,763,138	\$ 128,946,012	\$ 132,814,113
200	Services	79,469,782	83,187,730	84,060,600	91,146,434	90,452,339	107,927,977	96,365,761	99,642,197	103,030,032	106,533,053	110,155,177	113,900,453
220	Power	24,841,360	24,375,674	21,440,579	20,427,534	20,071,556	18,223,847	18,384,858	18,384,858	18,384,858	18,936,404	19,504,496	20,089,631
221	Gas	3,545,811	3,458,000	3,561,029	4,190,988	4,013,404	3,176,528	4,735,091	4,924,494	4,924,494	5,072,229	5,224,396	5,381,128
2xx	SMIP/GARP	5,025,000	4,925,776	5,020,143	11,598,134	15,000,000	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
300	Materials and Supplies	18,027,143	18,713,545	16,672,141	16,700,350	17,169,785	19,990,551	18,713,676	18,807,245	18,901,281	18,995,787	19,090,766	19,186,220
307	Chemicals	20,239,205	22,602,203	24,446,114	22,324,969	21,075,520	18,596,601	20,527,623	21,902,973	22,735,286	22,962,639	23,192,265	23,424,188
400	Equipment	2,082,059	1,804,839	2,419,659	1,849,016	1,992,145	2,120,160	2,263,012	2,292,431	2,322,232	2,352,421	2,383,003	2,413,982
500	Indemnities	-	-	-	-	-	400,000	500,000	500,000	500,000	500,000	500,000	500,000
800	Transfers	9,074,729	10,792,914	7,714,419	6,244,621	8,100,186	12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Total PWD Operating and Maintenance Expenses Summary		\$ 244,679,963	\$ 255,118,655	\$ 254,929,814	\$ 272,924,895	\$ 276,033,930	\$ 300,218,062	\$ 301,059,139	\$ 314,596,344	\$ 323,185,322	\$ 332,040,955	\$ 341,094,530	\$ 349,985,589
CHECK		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD Operating and Maintenance Expenses Summary - Annual Increase													
100	Salaries & Wages		3.50%	5.09%	9.88%	-0.29%	4.61%	10.18%	3.02%	3.50%	3.43%	3.35%	3.00%
200	Services		4.68%	1.05%	8.43%	-0.76%	19.32%	-10.71%	3.40%	3.40%	3.40%	3.40%	3.40%
220	Power		-1.87%	-12.04%	-4.72%	-1.74%	-9.21%	0.88%	0.00%	0.00%	3.00%	3.00%	3.00%
221	Gas		-2.48%	2.98%	17.69%	-4.24%	-20.85%	49.06%	4.00%	0.00%	3.00%	3.00%	3.00%
2xx	SMIP/GARP		-1.97%	1.92%	131.03%	29.33%	0.00%	33.33%	25.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies		3.81%	-10.91%	0.17%	2.81%	16.43%	-6.39%	0.50%	0.50%	0.50%	0.50%	0.50%
307	Chemicals		11.68%	8.16%	-8.68%	-5.60%	-11.76%	10.38%	6.70%	3.80%	1.00%	1.00%	1.00%
400	Equipment		-13.31%	34.07%	-23.58%	7.74%	6.43%	6.74%	1.30%	1.30%	1.30%	1.30%	1.30%
500	Indemnities							25.00%	0.00%	0.00%	0.00%	0.00%	0.00%
800	Transfers		18.93%	-28.52%	-19.05%	29.71%	49.34%	-46.84%	2.50%	2.50%	2.50%	2.50%	2.50%
Total PWD Operating and Maintenance Expenses Summary - Annual Increase			4.27%	-0.07%	7.06%	1.14%	8.76%	0.28%	4.50%	2.73%	2.74%	2.73%	2.61%
PWD Operating and Maintenance Expenses Summary - 2 Year Average Increase													
100	Salaries & Wages			4.29%	7.45%	4.67%	2.13%	7.36%	6.54%	3.26%	3.46%	3.39%	3.18%
200	Services			2.85%	4.67%	3.73%	8.82%	3.22%	-3.92%	3.40%	3.40%	3.40%	3.40%
220	Power			-7.10%	-8.46%	-3.25%	-5.55%	-4.29%	0.44%	0.00%	1.49%	3.00%	3.00%
221	Gas			0.21%	10.09%	6.16%	-12.94%	8.62%	24.51%	1.98%	1.49%	3.00%	3.00%
2xx	SMIP/GARP			-0.05%	53.45%	72.86%	13.72%	15.47%	29.10%	11.80%	0.00%	0.00%	0.00%
300	Materials and Supplies			-3.83%	-5.53%	1.48%	9.41%	4.40%	-3.00%	0.50%	0.50%	0.50%	0.50%
307	Chemicals			9.90%	-0.62%	-7.15%	-8.73%	-1.31%	8.53%	5.24%	2.39%	1.00%	1.00%
400	Equipment			7.80%	1.22%	-9.26%	7.08%	6.58%	3.98%	1.30%	1.30%	1.30%	1.30%
500	Indemnities									7.72%	0.00%	0.00%	0.00%
800	Transfers			-7.80%	-23.94%	2.47%	39.18%	-10.90%	-26.18%	2.50%	2.50%	2.50%	2.50%
Total PWD Operating and Maintenance Expenses Summary - 2 Year Average Increase				2.07%	3.43%	4.06%	4.88%	4.43%	2.37%	3.61%	2.74%	2.73%	2.67%

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water System O&M													
												Direct O&M - 4	
Human Resources and Administration													
100	Salaries & Wages						\$ 2,463,921	\$ 2,915,071	\$ 2,987,948	\$ 3,077,586	\$ 3,169,914	\$ 3,265,011	\$ 3,362,961
200	Services						1,150,181	1,378,436	1,425,303	1,473,763	1,523,871	1,575,682	1,629,256
300	Materials and Supplies						205,936	210,028	211,078	212,134	213,194	214,260	215,332
400	Equipment						243,012	116,026	117,534	119,062	120,610	122,178	123,766
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Human Resources and Administration							\$ 4,063,050	\$ 4,619,561	\$ 4,741,863	\$ 4,882,545	\$ 5,027,589	\$ 5,177,131	\$ 5,331,315
Finance													
100	Salaries & Wages						\$ 1,035,724	\$ 1,026,084	\$ 1,051,736	\$ 1,083,288	\$ 1,115,787	\$ 1,149,260	\$ 1,183,738
200	Services						3,185,941	1,388,352	1,435,556	1,484,365	1,534,834	1,587,018	1,640,977
2xx	SMIP & GARP						-	-	-	-	-	-	-
300	Materials and Supplies						22,913	2,737	2,751	2,765	2,779	2,793	2,807
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						4,354,943	2,315,093	2,372,970	2,432,295	2,493,102	2,555,429	2,619,315
Subtotal Finance							\$ 8,599,521	\$ 4,732,266	\$ 4,863,013	\$ 5,002,713	\$ 5,146,502	\$ 5,294,500	\$ 5,446,837
Planning and Engineering													
100	Salaries & Wages						\$ 475,154	\$ 684,793	\$ 701,913	\$ 722,971	\$ 744,660	\$ 766,999	\$ 790,009
200	Services						138,617	221,889	229,433	237,233	245,299	253,640	262,263
300	Materials and Supplies						18,542	31,430	31,588	31,746	31,904	32,064	32,224
400	Equipment						8,660	3,845	3,895	3,945	3,997	4,049	4,101
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Planning and Engineering							\$ 640,973	\$ 941,957	\$ 966,829	\$ 995,895	\$ 1,025,860	\$ 1,056,752	\$ 1,088,597
Operations													
100	Salaries & Wages						\$ 31,522,974	\$ 33,740,069	\$ 34,583,571	\$ 35,621,078	\$ 36,689,710	\$ 37,790,401	\$ 38,924,113
200	Services						12,226,390	11,714,518	12,112,811	12,524,647	12,950,485	13,390,801	13,846,089
220	Power						9,603,967	9,688,820	9,688,820	9,688,820	9,979,484	10,278,869	10,587,235
221	Gas						335,123	499,551	519,533	519,533	535,119	551,173	567,708
300	Materials and Supplies						7,210,168	6,817,064	6,851,149	6,885,405	6,919,832	6,954,431	6,989,203
307	Chemicals						15,773,655	17,411,549	18,578,123	19,284,091	19,476,932	19,671,702	19,868,419
400	Equipment						397,826	654,922	663,436	672,060	680,797	689,647	698,613
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Operations							\$ 77,070,103	\$ 80,526,493	\$ 82,997,443	\$ 85,195,634	\$ 87,232,359	\$ 89,327,024	\$ 91,481,380
Planning & Environmental Services													
100	Salaries & Wages						\$ 3,613,126	\$ 3,869,353	\$ 4,003,331	\$ 4,161,811	\$ 4,306,365	\$ 4,435,546	\$ 4,568,647
200	Services						7,411,775	5,665,894	5,858,534	6,057,724	6,263,687	6,476,652	6,696,858
300	Materials and Supplies						509,843	381,450	383,357	385,274	387,201	389,137	391,082
400	Equipment						135,094	104,430	105,787	107,162	108,555	109,967	111,396
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Planning & Environmental Services							\$ 11,669,838	\$ 10,021,127	\$ 10,351,009	\$ 10,711,971	\$ 11,065,808	\$ 11,411,302	\$ 11,767,983

Cost Center/Expense Class	Escalation Reference	Historical					Study Period							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Public Affairs														
100	Salaries & Wages						\$ 1,210,347	\$ 2,347,071	\$ 2,405,747	\$ 2,477,920	\$ 2,552,257	\$ 2,628,825	\$ 2,707,690	
200	Services						3,365,275	3,546,977	3,667,574	3,792,272	3,921,209	4,054,530	4,192,384	
300	Materials and Supplies						132,006	156,999	157,784	158,573	159,366	160,163	160,964	
400	Equipment						341	10,397	10,532	10,669	10,807	10,948	11,090	
500	Indemnities						200,000	250,000	250,000	250,000	250,000	250,000	250,000	
800	Transfers						-	-	-	-	-	-	-	
Subtotal Public Affairs							\$ 4,907,969	\$ 6,311,444	\$ 6,491,637	\$ 6,689,434	\$ 6,893,639	\$ 7,104,466	\$ 7,322,128	
Water System Operating and Maintenance Expenses Summary														
100	Salaries & Wages						\$ 40,321,246	\$ 44,582,441	\$ 45,734,246	\$ 47,144,654	\$ 48,578,693	\$ 50,036,042	\$ 51,537,158	
200	Services						27,478,179	23,916,066	24,729,211	25,570,004	26,439,385	27,338,323	28,267,827	
220	Power						9,603,967	9,688,820	9,688,820	9,688,820	9,979,484	10,278,869	10,587,235	
221	Gas						335,123	499,551	519,533	519,533	535,119	551,173	567,708	
2xx	SMIP/GARP						-	-	-	-	-	-	-	
300	Materials and Supplies						8,099,408	7,599,708	7,637,707	7,675,897	7,714,276	7,752,848	7,791,612	
307	Chemicals						15,773,655	17,411,549	18,578,123	19,284,091	19,476,932	19,671,702	19,868,419	
400	Equipment						784,933	889,620	901,184	912,898	924,766	936,789	948,966	
500	Indemnities						200,000	250,000	250,000	250,000	250,000	250,000	250,000	
800	Transfers						4,354,943	2,315,093	2,372,970	2,432,295	2,493,102	2,555,429	2,619,315	
Total Water System Operating and Maintenance Expenses Summary							\$ 106,951,454	\$ 107,152,848	\$ 110,411,794	\$ 113,478,192	\$ 116,391,757	\$ 119,371,175	\$ 122,438,240	
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Wastewater System O&M													
												Direct O&M - 5	
Human Resources and Administration													
100	Salaries & Wages						\$ 5,484,210	\$ 6,488,383	\$ 6,650,593	\$ 6,850,111	\$ 7,055,614	\$ 7,267,283	\$ 7,485,301
200	Services						2,560,079	3,068,131	3,172,447	3,280,311	3,391,841	3,507,165	3,626,407
300	Materials and Supplies						458,375	467,482	469,820	472,168	474,529	476,902	479,286
400	Equipment						540,899	258,251	261,609	265,010	268,455	271,944	275,480
500	Indemnities						-	0	0	0	0	0	0
800	Transfers						0	0	0	0	0	0	0
Subtotal Human Resources and Administration							\$ 9,043,563	\$ 10,282,248	\$ 10,554,468	\$ 10,867,599	\$ 11,190,439	\$ 11,523,294	\$ 11,866,475
Finance													
100	Salaries & Wages						\$ 1,689,865	\$ 1,674,137	\$ 1,715,990	\$ 1,767,470	\$ 1,820,494	\$ 1,875,109	\$ 1,931,362
200	Services						5,198,115	2,265,207	2,342,224	2,421,860	2,504,202	2,589,346	2,677,383
2xx	SMIP & GARP						15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
300	Materials and Supplies						37,385	4,467	4,489	4,511	4,533	4,556	4,579
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						7,742,121	4,115,721	4,218,614	4,324,079	4,432,181	4,542,986	4,656,560
Subtotal Finance							\$ 29,667,486	\$ 28,059,532	\$ 33,281,317	\$ 33,517,920	\$ 33,761,411	\$ 34,011,997	\$ 34,269,885
Planning and Engineering													
100	Salaries & Wages						\$ 712,731	\$ 1,027,190	\$ 1,052,870	\$ 1,084,455	\$ 1,116,989	\$ 1,150,500	\$ 1,185,015
200	Services						207,926	332,832	344,149	355,851	367,950	380,459	393,395
300	Materials and Supplies						27,814	47,146	47,381	47,618	47,857	48,096	48,336
400	Equipment						12,989	5,767	5,842	5,918	5,994	6,072	6,152
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Planning and Engineering							\$ 961,460	\$ 1,412,936	\$ 1,450,241	\$ 1,493,842	\$ 1,538,790	\$ 1,585,126	\$ 1,632,898
Operations													
100	Salaries & Wages						\$ 43,414,571	\$ 46,468,032	\$ 48,074,733	\$ 49,957,625	\$ 51,896,384	\$ 53,893,296	\$ 55,509,685
200	Services						53,037,059	50,816,598	52,544,363	54,330,871	56,178,120	58,088,177	60,063,174
220	Power						8,619,880	8,696,038	8,696,038	8,696,038	8,956,920	9,225,627	9,502,396
221	Gas						2,841,405	4,235,540	4,404,961	4,404,961	4,537,110	4,673,223	4,813,420
300	Materials and Supplies						10,297,347	9,735,928	9,784,608	9,833,530	9,882,698	9,932,112	9,981,772
307	Chemicals						2,822,946	3,116,074	3,324,850	3,451,195	3,485,707	3,520,563	3,555,769
400	Equipment						567,147	933,668	945,806	958,102	970,557	983,174	995,955
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Operations							\$ 121,600,355	\$ 124,001,877	\$ 127,775,358	\$ 131,632,322	\$ 135,907,496	\$ 140,316,172	\$ 144,422,171
Planning & Environmental Services													
100	Salaries & Wages						\$ 9,852,365	\$ 10,551,051	\$ 10,916,383	\$ 11,348,530	\$ 11,742,706	\$ 12,094,958	\$ 12,457,902
200	Services						15,643,945	11,958,933	12,365,537	12,785,966	13,220,688	13,670,192	14,134,979
300	Materials and Supplies						938,216	701,946	705,456	708,984	712,528	716,090	719,672
400	Equipment						213,852	165,310	167,459	169,637	171,842	174,075	176,339
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Planning & Environmental Services							\$ 26,648,378	\$ 23,377,240	\$ 24,154,836	\$ 25,013,116	\$ 25,847,765	\$ 26,655,315	\$ 27,488,891

Cost Center/Expense Class	Escalation Reference	Historical					Study Period							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Public Affairs														
100	Salaries & Wages						\$ 1,210,346	\$ 2,347,070	\$ 2,405,748	\$ 2,477,919	\$ 2,552,258	\$ 2,628,825	\$ 2,707,690	
200	Services						3,802,674	4,007,994	4,144,266	4,285,170	4,430,866	4,581,516	4,737,287	
300	Materials and Supplies						132,006	156,999	157,784	158,573	159,366	160,162	160,963	
400	Equipment						340	10,396	10,531	10,668	10,808	10,948	11,090	
500	Indemnities						200,000	250,000	250,000	250,000	250,000	250,000	250,000	
800	Transfers						-	-	-	-	-	-	-	
Subtotal Public Affairs							\$ 5,345,366	\$ 6,772,459	\$ 6,968,329	\$ 7,182,331	\$ 7,403,297	\$ 7,631,451	\$ 7,867,030	
Wastewater System Operating and Maintenance Expenses Summary														
100	Salaries & Wages						\$ 62,364,088	\$ 68,555,864	\$ 70,816,316	\$ 73,486,111	\$ 76,184,445	\$ 78,909,970	\$ 81,276,955	
200	Services						80,449,798	72,449,695	74,912,986	77,460,028	80,093,668	82,816,854	85,632,626	
220	Power						8,619,880	8,696,038	8,696,038	8,696,038	8,956,920	9,225,627	9,502,396	
221	Gas						2,841,405	4,235,540	4,404,961	4,404,961	4,537,110	4,673,223	4,813,420	
2xx	SMIP/GARP						15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	
300	Materials and Supplies						11,891,143	11,113,968	11,169,538	11,225,384	11,281,511	11,337,918	11,394,608	
307	Chemicals						2,822,946	3,116,074	3,324,850	3,451,195	3,485,707	3,520,563	3,555,769	
400	Equipment						1,335,227	1,373,392	1,391,247	1,409,334	1,427,655	1,446,214	1,465,016	
500	Indemnities						200,000	250,000	250,000	250,000	250,000	250,000	250,000	
800	Transfers						7,742,121	4,115,721	4,218,614	4,324,079	4,432,181	4,542,986	4,656,560	
Total Wastewater System Operating and Maintenance Expenses Summary							\$ 193,266,608	\$ 193,906,291	\$ 204,184,550	\$ 209,707,131	\$ 215,649,198	\$ 221,723,355	\$ 227,547,349	
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CHECK - Water & Sewer							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Allocation of Wastewater Costs to WTP Sludge (Linked to SCOS Model)							\$ 12,328,588	\$ 12,604,905	\$ 13,427,971	\$ 14,172,408	\$ 14,993,228	\$ 15,657,182	\$ 16,807,367	
Annual Increase								2.24%	6.53%	5.54%	5.79%	4.43%	7.35%	
Wastewater - Operations O&M Growth								1.97%	3.04%	3.02%	3.25%	3.24%	2.93%	
Wastewater O&M Growth								0.33%	5.30%	2.70%	2.83%	2.82%	2.63%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Liquidated Encumbrances												Direct O&M - 6	
Class 200 (Excluding SMIP/GARP) & Class 300 Costs		\$ 146,123,301	\$ 152,337,151	\$ 150,180,463	\$ 154,790,275	\$ 152,782,604	\$ 167,915,504	\$ 158,727,009	\$ 163,661,767	\$ 167,975,951	\$ 172,500,112	\$ 177,167,100	\$ 181,981,619
Water							\$ 61,290,332	\$ 59,115,694	\$ 61,153,394	\$ 62,738,345	\$ 64,145,196	\$ 65,592,915	\$ 67,082,801
Sewer							\$ 106,625,172	\$ 99,611,315	\$ 102,508,373	\$ 105,237,606	\$ 108,354,916	\$ 111,574,185	\$ 114,898,818
Liquidated Encumbrances		20,802,000	31,148,000	37,436,342	19,389,000	24,088,000	24,549,754	24,000,000	23,239,971	23,852,585	24,495,016	25,157,728	25,841,390
Water Allocation							8,273,267	8,088,000	7,831,870	8,038,321	8,254,820	8,478,154	8,708,548
Sewer Allocation							16,276,487	15,912,000	15,408,101	15,814,264	16,240,196	16,679,574	17,132,842
Direct Expenses Net of Liquidated Encumbrances		223,877,963	223,970,655	217,493,472	253,535,895	251,945,930	275,668,308	277,059,139	291,356,373	299,332,737	307,545,939	315,936,802	324,144,199
Water Allocation							98,678,187	99,064,848	102,579,924	105,439,870	108,136,937	110,893,021	113,729,692
Sewer Allocation							176,990,121	177,994,291	188,776,449	193,892,867	199,409,002	205,043,782	210,414,508
Net Expense Ratio													
Water							86.5%	86.3%	87.2%	87.2%	87.1%	87.1%	87.0%
Sewer							84.7%	84.0%	85.0%	85.0%	85.0%	85.1%	85.1%

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Detailed Allocation Finance & Admin													Direct O&M - 7
Projected O&M Prior to Adjustments													
Class 100 - xxxxxxxxxx	0.00%						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Class 100 - All Other	100.00%						2,725,589	2,700,221	2,767,726	2,850,758	2,936,281	3,024,369	3,115,100
Class 100 - Total	100.00%						2,725,589	2,700,221	2,767,726	2,850,758	2,936,281	3,024,369	3,115,100
Class 200 - Residential Stormwater Program	0.00%						-	-	-	-	-	-	-
Class 200 - Non-Res Stormwater Program	0.00%						-	-	-	-	-	-	-
Class 200 - Wastewater Collection Mains	0.00%						-	-	-	-	-	-	-
Class 200 - Green Initiatives (LTCP)	0.00%						-	-	-	-	-	-	-
Class 200 - Customer (Grants)	0.00%						-	-	-	-	-	-	-
Class 200 - Customer (Basis2)	0.00%						-	-	-	-	-	-	-
Class 200 - All Other	100.00%						8,384,056	3,653,559	3,777,780	3,906,225	4,039,036	4,176,364	4,318,360
Class 200 - Total	100.00%						8,384,056	3,653,559	3,777,780	3,906,225	4,039,036	4,176,364	4,318,360
Class 2xx - xxxxxxxxxx	100.00%						15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Class 2xx - All Other	0.00%						-	-	-	-	-	-	-
Class 2xx - Total (SMIP & GARP)	100.00%						15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Class 300 - xxxxxxxxxx	0.00%						-	-	-	-	-	-	-
Class 300 - All Other	100.00%						60,298	7,204	7,240	7,276	7,312	7,349	7,386
Class 300 - Total	100.00%						60,298	7,204	7,240	7,276	7,312	7,349	7,386
Class 400 - xxxxxxxxxx	0.00%						-	-	-	-	-	-	-
Class 400 - All Other	0.00%						-	-	-	-	-	-	-
Class 400 - Total	0.00%						-	-	-	-	-	-	-
Class 500 - xxxxxxxxxx	0.00%						-	-	-	-	-	-	-
Class 500 - All Other	0.00%						-	-	-	-	-	-	-
Class 500 - Total	0.00%						-	-	-	-	-	-	-
Class 800 - xxxxxxxxxx	0.00%						-	-	-	-	-	-	-
Class 800 - All Other	100.00%						12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Class 800 - Total	100.00%						12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Subtotal Projected O&M Prior to Adjustments							\$ 38,267,007	\$ 27,791,798	\$ 28,144,331	\$ 28,520,633	\$ 28,907,913	\$ 29,306,497	\$ 29,716,722

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adjustments													
Class 100 - xxxxxxxxx													
Class 100 - All Other													
Class 100 - Total							-	-	-	-	-	-	
Class 200 - Residential Stormwater Program													
Class 200 - Non-Res Stormwater Program													
Class 200 - Wastewater Collection Mains													
Class 200 - Green Initiatives (LTCP)													
Class 200 - Customer (Grants)							-	-	-	-	-	-	
Class 200 - Customer (Basis2)													
Class 200 - All Other													
Class 200 - Total							-	-	-	-	-	-	
Class 2xx - xxxxxxxxx							-	5,000,000	10,000,000	10,000,000	10,000,000	10,000,000	
Class 2xx - All Other													
Class 2xx - Total (SMIP & GARP)							-	5,000,000	10,000,000	10,000,000	10,000,000	10,000,000	
Class 300 - xxxxxxxxx													
Class 300 - All Other													
Class 300 - Total							-	-	-	-	-	-	
Class 400 - xxxxxxxxx													
Class 400 - All Other													
Class 400 - Total							-	-	-	-	-	-	
Class 500 - xxxxxxxxx													
Class 500 - All Other													
Class 500 - Total							-	-	-	-	-	-	
Class 800 - xxxxxxxxx													
Class 800 - All Other													
Class 800 - Total							-	-	-	-	-	-	
Subtotal Adjustments							\$ -	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Projected O&M												
Class 100 - xxxxxxxxx						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Class 100 - All Other						2,725,589	2,700,221	2,767,726	2,850,758	2,936,281	3,024,369	3,115,100
Class 100 - Total						2,725,589	2,700,221	2,767,726	2,850,758	2,936,281	3,024,369	3,115,100
Class 200 - Residential Stormwater Program						-	-	-	-	-	-	-
Class 200 - Non-Res Stormwater Program						-	-	-	-	-	-	-
Class 200 - Wastewater Collection Mains						-	-	-	-	-	-	-
Class 200 - Green Initiatives (LTCP)						-	-	-	-	-	-	-
Class 200 - Customer (Grants)						-	-	-	-	-	-	-
Class 200 - Customer (Basis2)						-	-	-	-	-	-	-
Class 200 - All Other						8,384,056	3,653,559	3,777,780	3,906,225	4,039,036	4,176,364	4,318,360
Class 200 - Total						8,384,056	3,653,559	3,777,780	3,906,225	4,039,036	4,176,364	4,318,360
Class 2xx - xxxxxxxxx						15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Class 2xx - All Other						-	-	-	-	-	-	-
Class 2xx - Total (SMIP & GARP)						15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Class 300 - xxxxxxxxx						-	-	-	-	-	-	-
Class 300 - All Other						60,298	7,204	7,240	7,276	7,312	7,349	7,386
Class 300 - Total						60,298	7,204	7,240	7,276	7,312	7,349	7,386
Class 400 - xxxxxxxxx						-	-	-	-	-	-	-
Class 400 - All Other						-	-	-	-	-	-	-
Class 400 - Total						-	-	-	-	-	-	-
Class 500 - xxxxxxxxx						-	-	-	-	-	-	-
Class 500 - All Other						-	-	-	-	-	-	-
Class 500 - Total						-	-	-	-	-	-	-
Class 800 - xxxxxxxxx						-	-	-	-	-	-	-
Class 800 - All Other						12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Class 800 - Total						12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Subtotal Projected O&M						\$ 38,267,007	\$ 32,791,798	\$ 38,144,331	\$ 38,520,633	\$ 38,907,913	\$ 39,306,497	\$ 39,716,722

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Finance													
Class 100 - xxxxxxxxx						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 100 - All Other						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 100 - Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 200 - Residential Stormwater Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 200 - Non-Res Stormwater Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 200 - Wastewater Collection Mains						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 200 - Green Initiatives (LTCP)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 200 - Customer (Grants)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 200 - Customer (Basis2)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 200 - All Other						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 200 - Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 2xx - xxxxxxxxx						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 2xx - All Other						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 2xx - Total (SMIP & GARP)						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 300 - xxxxxxxxx						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 300 - All Other						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 300 - Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 400 - xxxxxxxxx						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 400 - All Other						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 400 - Total						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 500 - xxxxxxxxx						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 500 - All Other						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 500 - Total						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 800 - xxxxxxxxx						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Class 800 - All Other						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Class 800 - Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						Direct O&M - 8
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Detailed Allocation of Operations Class 100													
Projected O&M Prior to Adjustments													
Water Direct Costs													
Baxter Treatment Plant	3.81%						\$ 2,858,150	\$ 3,059,171	\$ 3,135,650	\$ 3,229,720	\$ 3,326,611	\$ 3,426,410	\$ 3,529,202
Queen Lane Treatment Plant	3.76%						2,815,419	3,013,435	3,088,771	3,181,434	3,276,877	3,375,183	3,476,439
Belmont Treatment Plant	3.67%						2,752,653	2,946,255	3,019,911	3,110,509	3,203,824	3,299,939	3,398,937
Conveyance Headquarters	0.00%						-	-	-	-	-	-	-
Load Control	2.19%						1,640,856	1,756,262	1,800,168	1,854,174	1,909,799	1,967,093	2,026,105
Distribution	18.29%						13,706,302	14,670,303	15,037,060	15,488,172	15,952,817	16,431,402	16,924,344
Pumping (b)	3.28%						2,456,409	2,629,175	2,694,904	2,775,751	2,859,024	2,944,795	3,033,139
Emergency & Support Services	0.00%						-	-	-	-	-	-	-
Sewer Direct Costs													
Biosolids Engr Services	0.00%						-	-	-	-	-	-	-
Biosolids Utilization	0.00%						-	-	-	-	-	-	-
Biosolids Processing	0.00%						-	-	-	-	-	-	-
NEWPCP	8.63%						6,465,178	6,919,891	7,092,888	7,305,675	7,524,845	7,750,590	7,983,108
SWWPCP	8.52%						6,384,701	6,833,754	7,004,598	7,214,736	7,431,178	7,654,113	7,883,736
SEWPCP	4.67%						3,498,017	3,744,042	3,837,643	3,952,772	4,071,355	4,193,496	4,319,301
Industrial Waste	2.06%						1,540,033	1,648,348	1,689,557	1,740,243	1,792,451	1,846,224	1,901,611
Sewer Maintenance	12.89%						9,660,732	10,340,197	10,598,702	10,916,663	11,244,163	11,581,487	11,928,932
Inlet Cleaning	6.19%						4,640,624	4,967,012	5,091,187	5,243,923	5,401,240	5,563,278	5,730,176
Interceptors/Flow Control	5.53%						4,143,838	4,435,285	4,546,167	4,682,552	4,823,029	4,967,719	5,116,751
GSI Maintenance	1.22%						917,379	981,901	1,006,448	1,036,642	1,067,741	1,099,773	1,132,767
Collector System Support	1.16%						870,883	932,135	955,438	984,101	1,013,625	1,044,033	1,075,354
Allocated Costs													
Treatment Headquarters (50/50)	0.60%						447,737	479,228	491,209	505,945	521,123	536,757	552,860
Machine Shops (50/50)	0.00%						-	-	-	-	-	-	-
Building Maintenance (50/50)	0.00%						-	-	-	-	-	-	-
Security (50/50)	0.00%						-	-	-	-	-	-	-
Operations Admin/Delinquencies/Plumbing. (50/50)	6.43%						4,815,849	5,154,561	5,283,425	5,441,928	5,605,185	5,773,341	5,946,541
Materials Management (50/50)	2.20%						1,652,258	1,768,466	1,812,678	1,867,058	1,923,070	1,980,762	2,040,185
Customer Service (50/50)	1.91%						1,431,632	1,532,323	1,570,631	1,617,750	1,666,282	1,716,271	1,767,759
Warranty Program	0.00%						-	-	-	-	-	-	-
Meter Shop (50/50)	2.99%						2,238,893	2,396,360	2,456,269	2,529,957	2,605,856	2,684,031	2,764,552
Automotive Maintenance (35/65)	0.00%						-	-	-	-	-	-	-
Total	100.00%						\$ 74,937,545	\$ 80,208,101	\$ 82,213,304	\$ 84,679,703	\$ 87,220,094	\$ 89,836,697	\$ 92,531,798
Adjustments													
Water Direct Costs													
Baxter Treatment Plant	3,059,171												
Queen Lane Treatment	3,013,435												
Belmont Treatment Plant	2,946,255												
Conveyance Headquart	-												
Load Control	1,756,262												
Distribution	14,670,303												
Pumping (b)	2,629,175												
Emergency & Support S	-												
Sewer Direct Costs													
Biosolids Engr Services	-												
Biosolids Utilization	-												
Biosolids Processing	-												
NEWPCP	6,919,891												
SWWPCP	6,833,754												
SEWPCP	3,744,042												
Industrial Waste	1,648,348												
Sewer Maintenance	10,340,197												
Inlet Cleaning	4,967,012												
Interceptors/Flow Conti	4,435,285												
GSI Maintenance	981,901												
Collector System Suppo	932,135												
									445,000	899,000	1,366,000	1,847,000	1,902,000

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Allocated Costs													
Treatment Headquarter	479,228												
Machine Shops (50/50)	-												
Building Maintenance (50/50)	-												
Security (50/50)	-												
Operations Admin/Delinquencies/Plumbing (50/50) (c)	5,154,561												
Materials Management (50/50)	1,768,466												
Customer Service (50/50)	1,532,323												
Warranty Program	-												
Meter Shop (50/50)	2,396,360												
Automotive Maintenance (35/65)	-												
Total	80,208,104						-	-	445,000	899,000	1,366,000	1,847,000	1,902,000
Projected O&M													
Water Direct Costs													
Baxter Treatment Plant							\$ 2,858,150	\$ 3,059,171	\$ 3,135,650	\$ 3,229,720	\$ 3,326,611	\$ 3,426,410	\$ 3,529,202
Queen Lane Treatment Plant							2,815,419	3,013,435	3,088,771	3,181,434	3,276,877	3,375,183	3,476,439
Belmont Treatment Plant							2,752,653	2,946,255	3,019,911	3,110,509	3,203,824	3,299,939	3,398,937
Conveyance Headquarters							-	-	-	-	-	-	-
Load Control							1,640,856	1,756,262	1,800,168	1,854,174	1,909,799	1,967,093	2,026,105
Distribution							13,706,302	14,670,303	15,037,060	15,488,172	15,952,817	16,431,402	16,924,344
Pumping (b)							2,456,409	2,629,175	2,694,904	2,775,751	2,859,024	2,944,795	3,033,139
Emergency & Support Services							-	-	-	-	-	-	-
Sewer Direct Costs													
Biosolids Engr Services							-	-	-	-	-	-	-
Biosolids Utilization							-	-	-	-	-	-	-
Biosolids Processing							-	-	-	-	-	-	-
NEWPCP							6,465,178	6,919,891	7,092,888	7,305,675	7,524,845	7,750,590	7,983,108
SWWPCP							6,384,701	6,833,754	7,004,598	7,214,736	7,431,178	7,654,113	7,883,736
SEWPCP							3,498,017	3,744,042	3,837,643	3,952,772	4,071,355	4,193,496	4,319,301
Industrial Waste							1,540,033	1,648,348	1,689,557	1,740,243	1,792,451	1,846,224	1,901,611
Sewer Maintenance							9,660,732	10,340,197	10,598,702	10,916,663	11,244,163	11,581,487	11,928,932
Inlet Cleaning							4,640,624	4,967,012	5,091,187	5,243,923	5,401,240	5,563,278	5,730,176
Interceptors/Flow Control							4,143,838	4,435,285	4,546,167	4,682,552	4,823,029	4,967,719	5,116,751
GSI Maintenance							917,379	981,901	1,451,448	1,935,642	2,433,741	2,946,773	3,034,767
Collector System Support							870,883	932,135	955,438	984,101	1,013,625	1,044,033	1,075,354
Allocated Costs													
Treatment Headquarters (50/50)							447,737	479,228	491,209	505,945	521,123	536,757	552,860
Machine Shops (50/50)							-	-	-	-	-	-	-
Building Maintenance (50/50)							-	-	-	-	-	-	-
Security (50/50)							-	-	-	-	-	-	-
Operations Admin/Delinquencies/Plumbing (50/50) (c)							4,815,849	5,154,561	5,283,425	5,441,928	5,605,185	5,773,341	5,946,541
Materials Management (50/50)							1,652,258	1,768,466	1,812,678	1,867,058	1,923,070	1,980,762	2,040,185
Customer Service (50/50)							1,431,632	1,532,323	1,570,631	1,617,750	1,666,282	1,716,271	1,767,759
Warranty Program							-	-	-	-	-	-	-
Meter Shop (50/50)							2,238,893	2,396,360	2,456,269	2,529,957	2,605,856	2,684,031	2,764,552
Automotive Maintenance (35/65)							-	-	-	-	-	-	-
Total							\$ 74,937,545	\$ 80,208,101	\$ 82,658,304	\$ 85,578,703	\$ 88,586,094	\$ 91,683,697	\$ 94,433,798

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Distribution													
Water Direct Costs													
Baxter Treatment Plant						3.81%	3.81%	3.79%	3.77%	3.76%	3.74%	3.74%	
Queen Lane Treatment Plant						3.76%	3.76%	3.74%	3.72%	3.70%	3.68%	3.68%	
Belmont Treatment Plant						3.67%	3.67%	3.65%	3.63%	3.62%	3.60%	3.60%	
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Load Control						2.19%	2.19%	2.18%	2.17%	2.16%	2.15%	2.15%	
Distribution						18.29%	18.29%	18.19%	18.10%	18.01%	17.92%	17.92%	
Pumping (b)						3.28%	3.28%	3.26%	3.24%	3.23%	3.21%	3.21%	
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Sewer Direct Costs													
Biosolids Engr Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Utilization						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Processing						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
NEWPCP						8.63%	8.63%	8.58%	8.54%	8.49%	8.45%	8.45%	
SWWPCP						8.52%	8.52%	8.47%	8.43%	8.39%	8.35%	8.35%	
SEWPCP						4.67%	4.67%	4.64%	4.62%	4.60%	4.57%	4.57%	
Industrial Waste						2.06%	2.06%	2.04%	2.03%	2.02%	2.01%	2.01%	
Sewer Maintenance						12.89%	12.89%	12.82%	12.76%	12.69%	12.63%	12.63%	
Inlet Cleaning						6.19%	6.19%	6.16%	6.13%	6.10%	6.07%	6.07%	
Interceptors/Flow Control						5.53%	5.53%	5.50%	5.47%	5.44%	5.42%	5.42%	
GSI Maintenance						1.22%	1.22%	1.76%	2.26%	2.75%	3.21%	3.21%	
Collector System Support						1.16%	1.16%	1.16%	1.15%	1.14%	1.14%	1.14%	
Allocated Costs													
Treatment Headquarters (50/50)						0.60%	0.60%	0.59%	0.59%	0.59%	0.59%	0.59%	
Machine Shops (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Building Maintenance (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Security (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						6.43%	6.43%	6.39%	6.36%	6.33%	6.30%	6.30%	
Materials Management (50/50)						2.20%	2.20%	2.19%	2.18%	2.17%	2.16%	2.16%	
Customer Service (50/50)						1.91%	1.91%	1.90%	1.89%	1.88%	1.87%	1.87%	
Warranty Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Meter Shop (50/50)						2.99%	2.99%	2.97%	2.96%	2.94%	2.93%	2.93%	
Automotive Maintenance (35/65)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						Direct O&M - 9A
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Detailed Allocation of Operations Power													
Projected O&M Prior to Adjustments						Adjustments							
Water Direct Costs													
Baxter Treatment Plant	0.00%						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Queen Lane Treatment Plant	0.00%						-	-	-	-	-	-	
Belmont Treatment Plant	0.00%						-	-	-	-	-	-	
Conveyance Headquarters	0.00%						-	-	-	-	-	-	
Load Control	51.70%						9,421,728	9,504,971	9,504,971	9,504,971	9,790,120	10,083,824	10,386,339
Distribution	0.50%						91,119	91,924	91,924	91,924	94,682	97,522	100,448
Pumping (b)	0.00%						-	-	-	-	-	-	
Emergency & Support Services	0.00%						-	-	-	-	-	-	
Sewer Direct Costs													
Biosolids Engr Services	0.00%						-	-	-	-	-	-	
Biosolids Utilization	0.00%						-	-	-	-	-	-	
Biosolids Processing	0.00%						-	-	-	-	-	-	
NEWPCP	7.90%						1,439,684	1,452,404	1,452,404	1,452,404	1,495,976	1,540,855	1,587,081
SWWPCP	27.10%						4,938,663	4,982,297	4,982,297	4,982,297	5,131,766	5,285,719	5,444,290
SEWPCP	7.30%						1,330,341	1,342,095	1,342,095	1,342,095	1,382,358	1,423,829	1,466,543
Industrial Waste	0.00%						-	-	-	-	-	-	
Sewer Maintenance	0.00%						-	-	-	-	-	-	
Inlet Cleaning	0.00%						-	-	-	-	-	-	
Interceptors/Flow Control	4.10%						747,178	753,779	753,779	753,779	776,392	799,684	823,675
GSI Maintenance	0.00%						-	-	-	-	-	-	
Collector System Support	0.40%						72,895	73,539	73,539	73,539	75,745	78,018	80,358
Allocated Costs													
Treatment Headquarters (50/50)	1.00%						182,239	183,849	183,849	183,849	189,364	195,045	200,897
Machine Shops (50/50)	0.00%						-	-	-	-	-	-	
Building Maintenance (50/50)	0.00%						-	-	-	-	-	-	
Security (50/50)	0.00%						-	-	-	-	-	-	
Operations Admin/Delinquencies/Plumbing. (50/50)	0.00%						-	-	-	-	-	-	
Materials Management (50/50)	0.00%						-	-	-	-	-	-	
Customer Service (50/50)	0.00%						-	-	-	-	-	-	
Warranty Program	0.00%						-	-	-	-	-	-	
Meter Shop (50/50)	0.00%						-	-	-	-	-	-	
Automotive Maintenance (35/65)	0.00%						-	-	-	-	-	-	
Total	100.00%						\$ 18,223,847	\$ 18,384,858	\$ 18,384,858	\$ 18,384,858	\$ 18,936,404	\$ 19,504,496	\$ 20,089,631
Adjustments													
Water Direct Costs													
Baxter Treatment Plant	-												
Queen Lane Treatment	-												
Belmont Treatment Plant	-												
Conveyance Headquart	-												
Load Control	9,504,971												
Distribution	91,924												
Pumping (b)	-												
Emergency & Support S	-												
Sewer Direct Costs													
Biosolids Engr Services	-												
Biosolids Utilization	-												
Biosolids Processing	-												
NEWPCP	1,452,404												
SWWPCP	4,982,297												
SEWPCP	1,342,095												
Industrial Waste	-												
Sewer Maintenance	-												
Inlet Cleaning	-												
Interceptors/Flow Conti	753,779												
GSI Maintenance	-												
Collector System Suppo	73,539												

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Allocated Costs													
Treatment Headquarter	183,849												
Machine Shops (50/50)	-												
Building Maintenance (-												
Security (50/50)	-												
Operations Admin/Deli	-												
Materials Management	-												
Customer Service (50/5	-												
Warranty Program	-												
Meter Shop (50/50)	-												
Automotive Maintenanc	-												
Total	18,384,858												
Projected O&M													
Water Direct Costs													
Baxter Treatment Plant													
Queen Lane Treatment Plant													
Belmont Treatment Plant													
Conveyance Headquarters													
Load Control						9,421,728	9,504,971	9,504,971	9,504,971	9,790,120	10,083,824	10,386,339	
Distribution						91,119	91,924	91,924	91,924	94,682	97,522	100,448	
Pumping (b)						-	-	-	-	-	-	-	
Emergency & Support Services						-	-	-	-	-	-	-	
Sewer Direct Costs													
Biosolids Engr Services						-	-	-	-	-	-	-	
Biosolids Utilization						-	-	-	-	-	-	-	
Biosolids Processing						-	-	-	-	-	-	-	
NEWPCP						1,439,684	1,452,404	1,452,404	1,452,404	1,495,976	1,540,855	1,587,081	
SWWPCP						4,938,663	4,982,297	4,982,297	4,982,297	5,131,766	5,285,719	5,444,290	
SEWPCP						1,330,341	1,342,095	1,342,095	1,342,095	1,382,358	1,423,829	1,466,543	
Industrial Waste						-	-	-	-	-	-	-	
Sewer Maintenance						-	-	-	-	-	-	-	
Inlet Cleaning						-	-	-	-	-	-	-	
Interceptors/Flow Control						747,178	753,779	753,779	753,779	776,392	799,684	823,675	
GSI Maintenance						-	-	-	-	-	-	-	
Collector System Support						72,895	73,539	73,539	73,539	75,745	78,018	80,358	
Allocated Costs													
Treatment Headquarters (50/50)						182,239	183,849	183,849	183,849	189,364	195,045	200,897	
Machine Shops (50/50)						-	-	-	-	-	-	-	
Building Maintenance (50/50)						-	-	-	-	-	-	-	
Security (50/50)						-	-	-	-	-	-	-	
Operations Admin/Delinquencies/Plumbing, (50/50) (c)						-	-	-	-	-	-	-	
Materials Management (50/50)						-	-	-	-	-	-	-	
Customer Service (50/50)						-	-	-	-	-	-	-	
Warranty Program						-	-	-	-	-	-	-	
Meter Shop (50/50)						-	-	-	-	-	-	-	
Automotive Maintenance (35/65)						-	-	-	-	-	-	-	
Total						\$ 18,223,847	\$ 18,384,858	\$ 18,384,858	\$ 18,384,858	\$ 18,936,404	\$ 19,504,496	\$ 20,089,631	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Distribution													
Water Direct Costs													
Baxter Treatment Plant						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Queen Lane Treatment Plant						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Belmont Treatment Plant						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Load Control						51.70%	51.70%	51.70%	51.70%	51.70%	51.70%	51.70%	
Distribution						0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	
Pumping (b)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Sewer Direct Costs													
Biosolids Engr Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Utilization						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Processing						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
NEWPCP						7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	
SWWPCP						27.10%	27.10%	27.10%	27.10%	27.10%	27.10%	27.10%	
SEWPCP						7.30%	7.30%	7.30%	7.30%	7.30%	7.30%	7.30%	
Industrial Waste						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Sewer Maintenance						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Inlet Cleaning						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Interceptors/Flow Control						4.10%	4.10%	4.10%	4.10%	4.10%	4.10%	4.10%	
GSI Maintenance						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Collector System Support						0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	
Allocated Costs													
Treatment Headquarters (50/50)						1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Machine Shops (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Building Maintenance (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Security (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Materials Management (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Customer Service (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Warranty Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Meter Shop (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Automotive Maintenance (35/65)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						Direct O&M - 9B
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Detailed Allocation of Operations Gas													
Projected O&M Prior to Adjustments						Adjustments							
Water Direct Costs													
Baxter Treatment Plant	0.00%												
Queen Lane Treatment Plant	0.00%												
Belmont Treatment Plant	0.00%												
Conveyance Headquarters	0.00%												
Load Control	8.70%					276,357	411,952	428,430	428,430	441,282	454,521	468,157	
Distribution	0.80%					25,412	37,881	39,396	39,396	40,578	41,795	43,049	
Pumping (b)	0.00%												
Emergency & Support Services	0.00%												
Sewer Direct Costs													
Biosolids Engr Services	0.00%												
Biosolids Utilization	0.00%												
Biosolids Processing	67.20%					2,134,627	3,181,981	3,309,260	3,309,260	3,408,538	3,510,794	3,616,118	
NEWPCP	19.60%					622,600	928,078	965,201	965,201	994,157	1,023,982	1,054,701	
SWWPCP	0.00%												
SEWPCP	1.00%					31,765	47,351	49,245	49,245	50,722	52,244	53,811	
Industrial Waste	0.00%												
Sewer Maintenance	0.00%												
Inlet Cleaning	0.00%												
Interceptors/Flow Control	0.00%												
GSI Maintenance	0.00%												
Collector System Support	0.60%					19,059	28,411	29,547	29,547	30,434	31,347	32,287	
Allocated Costs													
Treatment Headquarters (50/50)	2.10%					66,707	99,437	103,414	103,414	106,517	109,712	113,004	
Machine Shops (50/50)	0.00%												
Building Maintenance (50/50)	0.00%												
Security (50/50)	0.00%												
Operations Admin/Delinquencies/Plumbing. (50/50)	0.00%												
Materials Management (50/50)	0.00%												
Customer Service (50/50)	0.00%												
Warranty Program	0.00%												
Meter Shop (50/50)	0.00%												
Automotive Maintenance (35/65)	0.00%												
Total	100.00%					\$ 3,176,528	\$ 4,735,091	\$ 4,924,494	\$ 4,924,494	\$ 5,072,229	\$ 5,224,396	\$ 5,381,128	
Adjustments													
Water Direct Costs													
Baxter Treatment Plant	-												
Queen Lane Treatment	-												
Belmont Treatment Plant	-												
Conveyance Headquart	-												
Load Control	411,952												
Distribution	37,881												
Pumping (b)	-												
Emergency & Support S	-												
Sewer Direct Costs													
Biosolids Engr Services	-												
Biosolids Utilization	-												
Biosolids Processing	3,181,981												
NEWPCP	928,078												
SWWPCP	-												
SEWPCP	47,351												
Industrial Waste	-												
Sewer Maintenance	-												
Inlet Cleaning	-												
Interceptors/Flow Conti	-												
GSI Maintenance	-												
Collector System Suppo	28,411												

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Allocated Costs													
Treatment Headquarter	99,437												
Machine Shops (50/50)	-												
Building Maintenance (-												
Security (50/50)	-												
Operations Admin/Deli	-												
Materials Management	-												
Customer Service (50/5	-												
Warranty Program	-												
Meter Shop (50/50)	-												
Automotive Maintenanc	-												
Total	4,735,091												
Projected O&M													
Water Direct Costs													
Baxter Treatment Plant													
Queen Lane Treatment Plant													
Belmont Treatment Plant													
Conveyance Headquarters													
Load Control						276,357	411,952	428,430	428,430	441,282	454,521	468,157	
Distribution						25,412	37,881	39,396	39,396	40,578	41,795	43,049	
Pumping (b)						-	-	-	-	-	-	-	
Emergency & Support Services						-	-	-	-	-	-	-	
Sewer Direct Costs													
Biosolids Engr Services						-	-	-	-	-	-	-	
Biosolids Utilization						-	-	-	-	-	-	-	
Biosolids Processing						2,134,627	3,181,981	3,309,260	3,309,260	3,408,538	3,510,794	3,616,118	
NEWPCP						622,600	928,078	965,201	965,201	994,157	1,023,982	1,054,701	
SWWPCP						-	-	-	-	-	-	-	
SEWPCP						31,765	47,351	49,245	49,245	50,722	52,244	53,811	
Industrial Waste						-	-	-	-	-	-	-	
Sewer Maintenance						-	-	-	-	-	-	-	
Inlet Cleaning						-	-	-	-	-	-	-	
Interceptors/Flow Control						-	-	-	-	-	-	-	
GSI Maintenance						-	-	-	-	-	-	-	
Collector System Support						19,059	28,411	29,547	29,547	30,434	31,347	32,287	
Allocated Costs													
Treatment Headquarters (50/50)						66,707	99,437	103,414	103,414	106,517	109,712	113,004	
Machine Shops (50/50)						-	-	-	-	-	-	-	
Building Maintenance (50/50)						-	-	-	-	-	-	-	
Security (50/50)						-	-	-	-	-	-	-	
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						-	-	-	-	-	-	-	
Materials Management (50/50)						-	-	-	-	-	-	-	
Customer Service (50/50)						-	-	-	-	-	-	-	
Warranty Program						-	-	-	-	-	-	-	
Meter Shop (50/50)						-	-	-	-	-	-	-	
Automotive Maintenance (35/65)						-	-	-	-	-	-	-	
Total						\$ 3,176,528	\$ 4,735,091	\$ 4,924,494	\$ 4,924,494	\$ 5,072,229	\$ 5,224,396	\$ 5,381,128	
Distribution													
Water Direct Costs													
Baxter Treatment Plant						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Queen Lane Treatment Plant						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Belmont Treatment Plant						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Load Control						8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	
Distribution						0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	
Pumping (b)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sewer Direct Costs													
Biosolids Engr Services							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Biosolids Utilization							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Biosolids Processing							67.20%	67.20%	67.20%	67.20%	67.20%	67.20%	67.20%
NEWPCP							19.60%	19.60%	19.60%	19.60%	19.60%	19.60%	19.60%
SWWPCP							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SEWPCP							1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Industrial Waste							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Maintenance							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inlet Cleaning							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interceptors/Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
GSI Maintenance							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Collector System Support							0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%
Allocated Costs													
Treatment Headquarters (50/50)							2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
Machine Shops (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Building Maintenance (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Security (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operations Admin/Delinquencies/Plumbing. (50/50) (c)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Materials Management (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Customer Service (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Warranty Program							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Automotive Maintenance (35/65)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total							100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Detailed Allocation of Operations Class 200 Excl. Power and Gas													Direct O&M - 10
Projected O&M Prior to Adjustments													
Water Direct Costs													
Baxter Treatment Plant	1.03%						\$ 670,687	\$ 642,608	\$ 664,457	\$ 687,048	\$ 710,408	\$ 734,562	\$ 759,537
Queen Lane Treatment Plant	1.37%						895,315	857,832	886,998	917,156	948,340	980,583	1,013,923
Belmont Treatment Plant	0.89%						583,367	558,944	577,948	597,598	617,917	638,926	660,649
Conveyance Headquarters	0.00%						-	-	-	-	-	-	-
Load Control	1.85%						1,208,514	1,157,918	1,197,287	1,237,995	1,280,087	1,323,610	1,368,612
Distribution	1.84%						1,203,833	1,153,433	1,192,650	1,233,200	1,275,129	1,318,483	1,363,311
Pumping (b)	0.50%						327,669	313,951	324,625	335,663	347,075	358,876	371,077
Emergency & Support Services	0.00%						-	-	-	-	-	-	-
Sewer Direct Costs													
Biosolids Engr Services	0.00%						-	-	-	-	-	-	-
Biosolids Utilization	0.00%						-	-	-	-	-	-	-
Biosolids Processing	32.01%						20,890,860	20,016,239	20,696,791	21,400,482	22,128,098	22,880,453	23,658,389
NEWPCP	16.24%						10,600,646	10,156,837	10,502,169	10,859,243	11,228,457	11,610,225	12,004,972
SWWPCP	4.76%						3,106,501	2,976,444	3,077,643	3,182,283	3,290,481	3,402,357	3,518,037
SEWPCP	1.45%						945,491	905,907	936,708	968,556	1,001,487	1,035,537	1,070,746
Industrial Waste	0.12%						80,716	77,337	79,966	82,685	85,497	88,404	91,409
Sewer Maintenance	4.43%						2,893,001	2,771,882	2,866,126	2,963,574	3,064,336	3,168,523	3,276,253
Inlet Cleaning	0.09%						58,801	56,339	58,255	60,235	62,283	64,401	66,590
Interceptors/Flow Control	5.14%						3,351,812	3,211,484	3,320,674	3,433,577	3,550,319	3,671,030	3,795,845
GSI Maintenance	5.73%						3,742,455	3,585,773	3,707,689	3,833,751	3,964,098	4,098,878	4,238,239
Collector System Support	0.05%						29,771	28,525	29,495	30,498	31,535	32,607	33,715
Allocated Costs													
Treatment Headquarters (50/50)	0.36%						233,115	223,355	230,949	238,801	246,921	255,316	263,997
Machine Shops (50/50)	0.00%						-	-	-	-	-	-	-
Building Maintenance (50/50)	0.00%						-	-	-	-	-	-	-
Security (50/50)	0.00%						-	-	-	-	-	-	-
Operations Admin/Delinquencies/Plumbing. (50/50)	11.47%						7,483,380	7,170,079	7,413,862	7,665,933	7,926,575	8,196,078	8,474,745
Materials Management (50/50)	0.28%						185,491	177,725	183,768	190,016	196,476	203,156	210,064
Customer Service (50/50)	7.17%						4,681,778	4,485,770	4,638,286	4,795,988	4,959,051	5,127,659	5,302,000
Warranty Program	0.00%						-	-	-	-	-	-	-
Meter Shop (50/50)	3.20%						2,090,246	2,002,735	2,070,828	2,141,236	2,214,038	2,289,315	2,367,152
Automotive Maintenance (35/65)	0.00%						-	-	-	-	-	-	-
Total	100.00%						\$ 65,263,449	\$ 62,531,116	\$ 64,657,174	\$ 66,855,518	\$ 69,128,605	\$ 71,478,978	\$ 73,909,263
Adjustments													
Water Direct Costs													
Baxter Treatment Plant	642,608												
Queen Lane Treatment	857,832												
Belmont Treatment Plant	558,944												
Conveyance Headquart	-												
Load Control	1,157,918												
Distribution	1,153,433												
Pumping (b)	313,951												
Emergency & Support S	-												
Sewer Direct Costs													
Biosolids Engr Services	-												
Biosolids Utilization	-												
Biosolids Processing	20,016,239												
NEWPCP	10,156,837												
SWWPCP	2,976,444												
SEWPCP	905,907												
Industrial Waste	77,337												
Sewer Maintenance	2,771,882												
Inlet Cleaning	56,339												
Interceptors/Flow Cont	3,211,484												
GSI Maintenance	3,585,773												
Collector System Suppo	28,525												

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Allocated Costs													
Treatment Headquarter	223,355												
Machine Shops (50/50)	-												
Building Maintenance (-												
Security (50/50)	-												
Operations Admin/Deli	7,170,079												
Materials Management	177,725												
Customer Service (50/5	4,485,770												
Warranty Program	-												
Meter Shop (50/50)	2,002,735												
Automotive Maintenanc	-												
Total	62,531,117												
Projected O&M													
Water Direct Costs													
Baxter Treatment Plant							\$ 670,687	\$ 642,608	\$ 664,457	\$ 687,048	\$ 710,408	\$ 734,562	\$ 759,537
Queen Lane Treatment Plant							895,315	857,832	886,998	917,156	948,340	980,583	1,013,923
Belmont Treatment Plant							583,367	558,944	577,948	597,598	617,917	638,926	660,649
Conveyance Headquarters							-	-	-	-	-	-	-
Load Control							1,208,514	1,157,918	1,197,287	1,237,995	1,280,087	1,323,610	1,368,612
Distribution							1,203,833	1,153,433	1,192,650	1,233,200	1,275,129	1,318,483	1,363,311
Pumping (b)							327,669	313,951	324,625	335,663	347,075	358,876	371,077
Emergency & Support Services							-	-	-	-	-	-	-
Sewer Direct Costs													
Biosolids Engr Services							-	-	-	-	-	-	-
Biosolids Utilization							-	-	-	-	-	-	-
Biosolids Processing							20,890,860	20,016,239	20,696,791	21,400,482	22,128,098	22,880,453	23,658,389
NEWPCP							10,600,646	10,156,837	10,502,169	10,859,243	11,228,457	11,610,225	12,004,972
SWWPCP							3,106,501	2,976,444	3,077,643	3,182,283	3,290,481	3,402,357	3,518,037
SEWPCP							945,491	905,907	936,708	968,556	1,001,487	1,035,537	1,070,746
Industrial Waste							80,716	77,337	79,966	82,685	85,497	88,404	91,409
Sewer Maintenance							2,893,001	2,771,882	2,866,126	2,963,574	3,064,336	3,168,523	3,276,253
Inlet Cleaning							58,801	56,339	58,255	60,235	62,283	64,401	66,590
Interceptors/Flow Control							3,351,812	3,211,484	3,320,674	3,433,577	3,550,319	3,671,030	3,795,845
GSI Maintenance							3,742,455	3,585,773	3,707,689	3,833,751	3,964,098	4,098,878	4,238,239
Collector System Support							29,771	28,525	29,495	30,498	31,535	32,607	33,715
Allocated Costs													
Treatment Headquarters (50/50)							233,115	223,355	230,949	238,801	246,921	255,316	263,997
Machine Shops (50/50)							-	-	-	-	-	-	-
Building Maintenance (50/50)							-	-	-	-	-	-	-
Security (50/50)							-	-	-	-	-	-	-
Operations Admin/Delinquencies/Plumbing, (50/50) (c)							7,483,380	7,170,079	7,413,862	7,665,933	7,926,575	8,196,078	8,474,745
Materials Management (50/50)							185,491	177,725	183,768	190,016	196,476	203,156	210,064
Customer Service (50/50)							4,681,778	4,485,770	4,638,286	4,795,988	4,959,051	5,127,659	5,302,000
Warranty Program							-	-	-	-	-	-	-
Meter Shop (50/50)							2,090,246	2,002,735	2,070,828	2,141,236	2,214,038	2,289,315	2,367,152
Automotive Maintenance (35/65)							-	-	-	-	-	-	-
Total							\$ 65,263,449	\$ 62,531,116	\$ 64,657,174	\$ 66,855,518	\$ 69,128,605	\$ 71,478,978	\$ 73,909,263

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Distribution													
Distribution based on Adjusted Costs													
Water Direct Costs													
Baxter Treatment Plant						1.03%	1.03%	1.03%	1.03%	1.03%	1.03%	1.03%	
Queen Lane Treatment Plant						1.37%	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%	
Belmont Treatment Plant						0.89%	0.89%	0.89%	0.89%	0.89%	0.89%	0.89%	
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Load Control						1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	
Distribution						1.84%	1.84%	1.84%	1.84%	1.84%	1.84%	1.84%	
Pumping (b)						0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Sewer Direct Costs													
Biosolids Engr Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Utilization						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Processing						32.01%	32.01%	32.01%	32.01%	32.01%	32.01%	32.01%	
NEWPCP						16.24%	16.24%	16.24%	16.24%	16.24%	16.24%	16.24%	
SWWPCP						4.76%	4.76%	4.76%	4.76%	4.76%	4.76%	4.76%	
SEWPCP						1.45%	1.45%	1.45%	1.45%	1.45%	1.45%	1.45%	
Industrial Waste						0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	
Sewer Maintenance						4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	4.43%	
Inlet Cleaning						0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	
Interceptors/Flow Control						5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	5.14%	
GSI Maintenance						5.73%	5.73%	5.73%	5.73%	5.73%	5.73%	5.73%	
Collector System Support						0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	
Allocated Costs													
Treatment Headquarters (50/50)						0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	
Machine Shops (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Building Maintenance (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Security (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						11.47%	11.47%	11.47%	11.47%	11.47%	11.47%	11.47%	
Materials Management (50/50)						0.28%	0.28%	0.28%	0.28%	0.28%	0.28%	0.28%	
Customer Service (50/50)						7.17%	7.17%	7.17%	7.17%	7.17%	7.17%	7.17%	
Warranty Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Meter Shop (50/50)						3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	
Automotive Maintenance (35/65)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Detailed Allocation of Operations Chemicals												Direct O&M - 11
Projected O&M Prior to Adjustments						Adjustments						
Water Direct Costs												
Baxter Treatment Plant	8,581,603											
Queen Lane Treatment	4,703,345											
Belmont Treatment Pla	4,056,749											
Conveyance Headquart	-											
Load Control	-											
Distribution	46,925											
Pumping (b)	2,675											
Emergency & Support S	-											
Sewer Direct Costs												
Biosolids Engr Services	-											
Biosolids Utilization	-											
Biosolids Processing	-											
NEWPCP	814,004											
SWWPCP	414,580											
SEWPCP	432,646											
Industrial Waste	-											
Sewer Maintenance	9,956											
Inlet Cleaning	1,877											
Interceptors/Flow Conti	1,418,067											
GSI Maintenance	4,692											
Collector System Suppo	-											
Allocated Costs												
Treatment Headquarter	1,837											
Machine Shops (50/50)	-											
Building Maintenance (!	-											
Security (50/50)	-											
Operations Admin/Deliv	-											
Materials Management	38,666											
Customer Service (50/5	-											
Warranty Program	-											
Meter Shop (50/50)	-											
Automotive Maintenanc	-											
Total	20,527,622											

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Distribution based on Adjusted Costs													
Water Direct Costs													
Baxter Treatment Plant						41.81%	41.81%	41.81%	41.81%	41.81%	41.81%	41.81%	
Queen Lane Treatment Plant						22.91%	22.91%	22.91%	22.91%	22.91%	22.91%	22.91%	
Belmont Treatment Plant						19.76%	19.76%	19.76%	19.76%	19.76%	19.76%	19.76%	
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Load Control						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Distribution						0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	
Pumping (b)						0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Sewer Direct Costs													
Biosolids Engr Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Utilization						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Biosolids Processing						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
NEWPCP						3.97%	3.97%	3.97%	3.97%	3.97%	3.97%	3.97%	
SWWPCP						2.02%	2.02%	2.02%	2.02%	2.02%	2.02%	2.02%	
SEWPCP						2.11%	2.11%	2.11%	2.11%	2.11%	2.11%	2.11%	
Industrial Waste						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Sewer Maintenance						0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	
Inlet Cleaning						0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	
Interceptors/Flow Control						6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	6.91%	
GSI Maintenance						0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	
Collector System Support						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Allocated Costs													
Treatment Headquarters (50/50)						0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	
Machine Shops (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Building Maintenance (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Security (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Materials Management (50/50)						0.19%	0.19%	0.19%	0.19%	0.19%	0.19%	0.19%	
Customer Service (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Warranty Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Meter Shop (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Automotive Maintenance (35/65)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						Direct O&M - 12
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Detailed Allocation of Operations Class 300 Excl. Chemicals													
Projected O&M Prior to Adjustments													
Water Direct Costs													
Baxter Treatment Plant	6.07%						\$ 1,062,934	\$ 1,004,982	\$ 1,010,007	\$ 1,015,057	\$ 1,020,132	\$ 1,025,233	\$ 1,030,359
Queen Lane Treatment Plant	4.91%						859,621	812,754	816,818	820,902	825,006	829,131	833,277
Belmont Treatment Plant	4.24%						742,260	701,792	705,301	708,827	712,371	715,933	719,513
Conveyance Headquarters	0.00%						-	-	-	-	-	-	-
Load Control	0.61%						107,257	101,409	101,916	102,426	102,938	103,452	103,970
Distribution	1.32%						230,799	218,216	219,307	220,404	221,506	222,613	223,726
Pumping (b)	2.23%						391,228	369,898	371,747	373,606	375,474	377,352	379,238
Emergency & Support Services	0.00%						-	-	-	-	-	-	-
Sewer Direct Costs													
Biosolids Engr Services	0.00%						-	-	-	-	-	-	-
Biosolids Utilization	0.00%						-	-	-	-	-	-	-
Biosolids Processing	0.25%						43,547	41,173	41,379	41,586	41,794	42,003	42,213
NEWPCP	9.60%						1,680,027	1,588,431	1,596,373	1,604,355	1,612,376	1,620,438	1,628,541
SWWPCP	6.31%						1,104,182	1,043,981	1,049,201	1,054,447	1,059,719	1,065,018	1,070,343
SEWPCP	9.01%						1,577,495	1,491,489	1,498,946	1,506,441	1,513,973	1,521,543	1,529,151
Industrial Waste	0.53%						92,207	87,180	87,616	88,054	88,494	88,937	89,381
Sewer Maintenance	3.87%						677,792	640,838	644,042	647,262	650,499	653,751	657,020
Inlet Cleaning	0.59%						102,498	96,910	97,395	97,882	98,371	98,863	99,357
Interceptors/Flow Control	5.26%						920,151	869,984	874,334	878,705	883,099	887,514	891,952
GSI Maintenance	1.61%						281,495	266,148	267,479	268,816	270,160	271,511	272,869
Collector System Support	0.01%						1,884	1,781	1,790	1,799	1,808	1,817	1,826
	0.00%						-	-	-	-	-	-	-
Allocated Costs													
Treatment Headquarters (50/50)	0.04%						6,904	6,528	6,561	6,593	6,626	6,660	6,693
Machine Shops (50/50)	0.00%						-	-	-	-	-	-	-
Building Maintenance (50/50)	0.00%						-	-	-	-	-	-	-
Security (50/50)	0.00%						-	-	-	-	-	-	-
Operations Admin/Delinquencies/Plumbing. (50/50)	3.75%						656,648	620,847	623,951	627,071	630,206	633,357	636,524
Materials Management (50/50)	39.11%						6,847,343	6,474,021	6,506,391	6,538,923	6,571,617	6,604,475	6,637,498
Customer Service (50/50)	0.17%						29,031	27,448	27,585	27,723	27,862	28,001	28,141
Warranty Program	0.00%						-	-	-	-	-	-	-
Meter Shop (50/50)	0.53%						92,211	87,184	87,620	88,058	88,498	88,941	89,385
Automotive Maintenance (35/65)	0.00%						-	-	-	-	-	-	-
Total	100.00%						\$ 17,507,515	\$ 16,552,992	\$ 16,635,757	\$ 16,718,935	\$ 16,802,530	\$ 16,886,543	\$ 16,970,975
Adjustments													
Water Direct Costs													
Baxter Treatment Plant	1,004,982												
Queen Lane Treatment	812,754												
Belmont Treatment Plant	701,792												
Conveyance Headquart	-												
Load Control	101,409												
Distribution	218,216												
Pumping (b)	369,898												
Emergency & Support S	-												
Sewer Direct Costs													
Biosolids Engr Services	-												
Biosolids Utilization	-												
Biosolids Processing	41,173												
NEWPCP	1,588,431												
SWWPCP	1,043,981												
SEWPCP	1,491,489												
Industrial Waste	87,180												
Sewer Maintenance	640,838												
Inlet Cleaning	96,910												
Interceptors/Flow Cont	869,984												
GSI Maintenance	266,148												
Collector System Suppo	1,781												

Cost Center/Expense Class	Escalation Reference	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Allocated Costs												
Treatment Headquarter	6,528											
Machine Shops (50/50)	-											
Building Maintenance (50/50)	-											
Security (50/50)	-											
Operations Admin/Delinquencies/Plumbing (50/50) (c)	620,847											
Materials Management (50/50)	6,474,022											
Customer Service (50/50)	27,448											
Warranty Program	-											
Meter Shop (50/50)	87,184											
Automotive Maintenance (35/65)	-											
Total	16,552,995											
Projected O&M												
Water Direct Costs												
Baxter Treatment Plant						\$ 1,062,934	\$ 1,004,982	\$ 1,010,007	\$ 1,015,057	\$ 1,020,132	\$ 1,025,233	\$ 1,030,359
Queen Lane Treatment Plant						859,621	812,754	816,818	820,902	825,006	829,131	833,277
Belmont Treatment Plant						742,260	701,792	705,301	708,827	712,371	715,933	719,513
Conveyance Headquarters						-	-	-	-	-	-	-
Load Control						107,257	101,409	101,916	102,426	102,938	103,452	103,970
Distribution						230,799	218,216	219,307	220,404	221,506	222,613	223,726
Pumping (b)						391,228	369,898	371,747	373,606	375,474	377,352	379,238
Emergency & Support Services						-	-	-	-	-	-	-
Sewer Direct Costs												
Biosolids Engr Services						-	-	-	-	-	-	-
Biosolids Utilization						-	-	-	-	-	-	-
Biosolids Processing						43,547	41,173	41,379	41,586	41,794	42,003	42,213
NEWPCP						1,680,027	1,588,431	1,596,373	1,604,355	1,612,376	1,620,438	1,628,541
SWWPCP						1,104,182	1,043,981	1,049,201	1,054,447	1,059,719	1,065,018	1,070,343
SEWPCP						1,577,495	1,491,489	1,498,946	1,506,441	1,513,973	1,521,543	1,529,151
Industrial Waste						92,207	87,180	87,616	88,054	88,494	88,937	89,381
Sewer Maintenance						677,792	640,838	644,042	647,262	650,499	653,751	657,020
Inlet Cleaning						102,498	96,910	97,395	97,882	98,371	98,863	99,357
Interceptors/Flow Control						920,151	869,984	874,334	878,705	883,099	887,514	891,952
GSI Maintenance						281,495	266,148	267,479	268,816	270,160	271,511	272,869
Collector System Support						1,884	1,781	1,790	1,799	1,808	1,817	1,826
Allocated Costs												
Treatment Headquarters (50/50)						6,904	6,528	6,561	6,593	6,626	6,660	6,693
Machine Shops (50/50)						-	-	-	-	-	-	-
Building Maintenance (50/50)						-	-	-	-	-	-	-
Security (50/50)						-	-	-	-	-	-	-
Operations Admin/Delinquencies/Plumbing (50/50) (c)						656,648	620,847	623,951	627,071	630,206	633,357	636,524
Materials Management (50/50)						6,847,343	6,474,021	6,506,391	6,538,923	6,571,617	6,604,475	6,637,498
Customer Service (50/50)						29,031	27,448	27,585	27,723	27,862	28,001	28,141
Warranty Program						-	-	-	-	-	-	-
Meter Shop (50/50)						92,211	87,184	87,620	88,058	88,498	88,941	89,385
Automotive Maintenance (35/65)						-	-	-	-	-	-	-
Total						\$ 17,507,515	\$ 16,552,992	\$ 16,635,757	\$ 16,718,935	\$ 16,802,530	\$ 16,886,543	\$ 16,970,975

Cost Center/Expense Class	Escalation Reference	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Distribution												
Water Direct Costs												
Baxter Treatment Plant						6.07%	6.07%	6.07%	6.07%	6.07%	6.07%	6.07%
Queen Lane Treatment Plant						4.91%	4.91%	4.91%	4.91%	4.91%	4.91%	4.91%
Belmont Treatment Plant						4.24%	4.24%	4.24%	4.24%	4.24%	4.24%	4.24%
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control						0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
Distribution						1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%
Pumping (b)						2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Direct Costs												
Biosolids Engr Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Biosolids Utilization						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Biosolids Processing						0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
NEWPCP						9.60%	9.60%	9.60%	9.60%	9.60%	9.60%	9.60%
SWWPCP						6.31%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%
SEWPCP						9.01%	9.01%	9.01%	9.01%	9.01%	9.01%	9.01%
Industrial Waste						0.53%	0.53%	0.53%	0.53%	0.53%	0.53%	0.53%
Sewer Maintenance						3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%
Inlet Cleaning						0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%
Interceptors/Flow Control						5.26%	5.26%	5.26%	5.26%	5.26%	5.26%	5.26%
GSI Maintenance						1.61%	1.61%	1.61%	1.61%	1.61%	1.61%	1.61%
Collector System Support						0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
Allocated Costs												
Treatment Headquarters (50/50)						0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%
Machine Shops (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Building Maintenance (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Security (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%
Materials Management (50/50)						39.11%	39.11%	39.11%	39.11%	39.11%	39.11%	39.11%
Customer Service (50/50)						0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
Warranty Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)						0.53%	0.53%	0.53%	0.53%	0.53%	0.53%	0.53%
Automotive Maintenance (35/65)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						Direct O&M - 13
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Detailed Allocation of Operations Class 400													
Projected O&M Prior to Adjustments						Adjustments							
Water Direct Costs													
Baxter Treatment Plant	6.33%					\$ 61,119	\$ 100,618	\$ 101,926	\$ 103,251	\$ 104,593	\$ 105,953	\$ 107,330	
Queen Lane Treatment Plant	5.49%					52,974	87,209	88,343	89,491	90,654	91,833	93,027	
Belmont Treatment Plant	1.97%					18,989	31,260	31,666	32,078	32,495	32,917	33,345	
Conveyance Headquarters	0.00%					-	-	-	-	-	-	-	
Load Control	1.94%					18,746	30,860	31,261	31,668	32,079	32,496	32,919	
Distribution	10.55%					101,761	167,524	169,702	171,908	174,143	176,406	178,700	
Pumping (b)	2.67%					25,732	42,362	42,913	43,471	44,036	44,608	45,188	
Emergency & Support Services	0.00%					-	-	-	-	-	-	-	
Sewer Direct Costs													
Biosolids Engr Services	0.00%					-	-	-	-	-	-	-	
Biosolids Utilization	0.00%					-	-	-	-	-	-	-	
Biosolids Processing	0.00%					-	-	-	-	-	-	-	
NEWPCP	9.44%					91,098	149,970	151,919	153,894	155,895	157,922	159,975	
SWWPCP	12.70%					122,527	201,710	204,332	206,988	209,679	212,405	215,166	
SEWPCP	13.76%					132,800	218,623	221,465	224,344	227,260	230,215	233,208	
Industrial Waste	0.84%					8,083	13,306	13,479	13,654	13,832	14,012	14,194	
Sewer Maintenance	4.44%					42,824	70,500	71,416	72,345	73,285	74,238	75,203	
Inlet Cleaning	1.53%					14,794	24,355	24,672	24,992	25,317	25,646	25,980	
Interceptors/Flow Control	1.24%					11,929	19,638	19,893	20,152	20,414	20,679	20,948	
GSI Maintenance	2.55%					24,588	40,478	41,004	41,537	42,077	42,624	43,178	
Collector System Support	0.00%					-	-	-	-	-	-	-	
Allocated Costs													
Treatment Headquarters (50/50)	0.22%					2,132	3,509	3,555	3,601	3,648	3,695	3,743	
Machine Shops (50/50)	0.00%					-	-	-	-	-	-	-	
Building Maintenance (50/50)	0.00%					-	-	-	-	-	-	-	
Security (50/50)	0.00%					-	-	-	-	-	-	-	
Operations Admin/Delinquencies/Plumbing. (50/50)	18.21%					175,769	289,360	293,121	296,932	300,792	304,702	308,664	
Materials Management (50/50)	0.05%					487	802	812	823	834	845	856	
Customer Service (50/50)	0.51%					4,966	8,176	8,282	8,390	8,499	8,610	8,721	
Warranty Program	0.00%					-	-	-	-	-	-	-	
Meter Shop (50/50)	5.56%					53,656	88,331	89,479	90,642	91,821	93,014	94,224	
Automotive Maintenance (35/65)	0.00%					-	-	-	-	-	-	-	
Total	100.00%					\$ 964,973	\$ 1,588,590	\$ 1,609,242	\$ 1,630,162	\$ 1,651,354	\$ 1,672,821	\$ 1,694,568	
Adjustments													
Water Direct Costs													
Baxter Treatment Plant						100,618							
Queen Lane Treatment						87,209							
Belmont Treatment Plant						31,260							
Conveyance Headquart						-							
Load Control						30,860							
Distribution						167,524							
Pumping (b)						42,362							
Emergency & Support S						-							
Sewer Direct Costs													
Biosolids Engr Services						-							
Biosolids Utilization						-							
Biosolids Processing						-							
NEWPCP						149,970							
SWWPCP						201,710							
SEWPCP						218,623							
Industrial Waste						13,306							
Sewer Maintenance						70,500							
Inlet Cleaning						24,355							
Interceptors/Flow Conti						19,638							
GSI Maintenance						40,478							
Collector System Suppo						-							

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Allocated Costs													
Treatment Headquarter	3,509												
Machine Shops (50/50)	-												
Building Maintenance (-												
Security (50/50)	-												
Operations Admin/Deli	289,360												
Materials Management	802												
Customer Service (50/5	8,176												
Warranty Program	-												
Meter Shop (50/50)	88,331												
Automotive Maintenanc	-												
Total	1,588,591												
Projected O&M													
Water Direct Costs													
Baxter Treatment Plant						\$ 61,119	\$ 100,618	\$ 101,926	\$ 103,251	\$ 104,593	\$ 105,953	\$ 107,330	
Queen Lane Treatment Plant						52,974	87,209	88,343	89,491	90,654	91,833	93,027	
Belmont Treatment Plant						18,989	31,260	31,666	32,078	32,495	32,917	33,345	
Conveyance Headquarters						-	-	-	-	-	-	-	
Load Control						18,746	30,860	31,261	31,668	32,079	32,496	32,919	
Distribution						101,761	167,524	169,702	171,908	174,143	176,406	178,700	
Pumping (b)						25,732	42,362	42,913	43,471	44,036	44,608	45,188	
Emergency & Support Services						-	-	-	-	-	-	-	
Sewer Direct Costs													
Biosolids Engr Services						-	-	-	-	-	-	-	
Biosolids Utilization						-	-	-	-	-	-	-	
Biosolids Processing						-	-	-	-	-	-	-	
NEWPCP						91,098	149,970	151,919	153,894	155,895	157,922	159,975	
SWWPCP						122,527	201,710	204,332	206,988	209,679	212,405	215,166	
SEWPCP						132,800	218,623	221,465	224,344	227,260	230,215	233,208	
Industrial Waste						8,083	13,306	13,479	13,654	13,832	14,012	14,194	
Sewer Maintenance						42,824	70,500	71,416	72,345	73,285	74,238	75,203	
Inlet Cleaning						14,794	24,355	24,672	24,992	25,317	25,646	25,980	
Interceptors/Flow Control						11,929	19,638	19,893	20,152	20,414	20,679	20,948	
GSI Maintenance						24,588	40,478	41,004	41,537	42,077	42,624	43,178	
Collector System Support						-	-	-	-	-	-	-	
Allocated Costs													
Treatment Headquarters (50/50)						2,132	3,509	3,555	3,601	3,648	3,695	3,743	
Machine Shops (50/50)						-	-	-	-	-	-	-	
Building Maintenance (50/50)						-	-	-	-	-	-	-	
Security (50/50)						-	-	-	-	-	-	-	
Operations Admin/Delinquencies/Plumbing, (50/50) (c)						175,769	289,360	293,121	296,932	300,792	304,702	308,664	
Materials Management (50/50)						487	802	812	823	834	845	856	
Customer Service (50/50)						4,966	8,176	8,282	8,390	8,499	8,610	8,721	
Warranty Program						-	-	-	-	-	-	-	
Meter Shop (50/50)						53,656	88,331	89,479	90,642	91,821	93,014	94,224	
Automotive Maintenance (35/65)						-	-	-	-	-	-	-	
Total						\$ 964,973	\$ 1,588,590	\$ 1,609,242	\$ 1,630,162	\$ 1,651,354	\$ 1,672,821	\$ 1,694,568	

Cost Center/Expense Class	Escalation Reference	Historical					Study Period					
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Distribution												
Water Direct Costs												
Baxter Treatment Plant						6.33%	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%
Queen Lane Treatment Plant						5.49%	5.49%	5.49%	5.49%	5.49%	5.49%	5.49%
Belmont Treatment Plant						1.97%	1.97%	1.97%	1.97%	1.97%	1.97%	1.97%
Conveyance Headquarters						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control						1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%
Distribution						10.55%	10.55%	10.55%	10.55%	10.55%	10.55%	10.55%
Pumping (b)						2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%
Emergency & Support Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Direct Costs												
Biosolids Engr Services						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Biosolids Utilization						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Biosolids Processing						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NEWPCP						9.44%	9.44%	9.44%	9.44%	9.44%	9.44%	9.44%
SWWPCP						12.70%	12.70%	12.70%	12.70%	12.70%	12.70%	12.70%
SEWPCP						13.76%	13.76%	13.76%	13.76%	13.76%	13.76%	13.76%
Industrial Waste						0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%
Sewer Maintenance						4.44%	4.44%	4.44%	4.44%	4.44%	4.44%	4.44%
Inlet Cleaning						1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
Interceptors/Flow Control						1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
GSI Maintenance						2.55%	2.55%	2.55%	2.55%	2.55%	2.55%	2.55%
Collector System Support						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allocated Costs												
Treatment Headquarters (50/50)						0.22%	0.22%	0.22%	0.22%	0.22%	0.22%	0.22%
Machine Shops (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Building Maintenance (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Security (50/50)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operations Admin/Delinquencies/Plumbing. (50/50) (c)						18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%
Materials Management (50/50)						0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Customer Service (50/50)						0.51%	0.51%	0.51%	0.51%	0.51%	0.51%	0.51%
Warranty Program						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)						5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%
Automotive Maintenance (35/65)						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Cost Center/Expense Class	Escalation Reference	Historical					Study Period							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
PWD Projected Direct O&M Budget													Direct O&M - 14	
Human Resources and Administration														
100	Salaries & Wages	Labor	\$ 7,533,950	\$ 7,726,550	\$ 7,860,450	\$ 8,673,039	\$ 8,815,500	\$ 9,851,135	\$ 9,851,135	\$ 10,097,414	\$ 10,400,336	\$ 10,712,346	\$ 11,033,717	\$ 11,364,728
200	Services	Other 200	3,969,095	2,999,990	4,130,600	5,846,000	5,222,100	6,291,800	6,176,100	6,386,087	6,603,214	6,827,724	7,059,866	7,299,902
300	Materials and Supplies	Other 300	778,565	799,164	771,700	1,215,550	1,141,850	1,226,006	1,152,218	1,157,979	1,163,769	1,169,588	1,175,436	1,181,313
400	Equipment	Other 400	142,700	49,000	82,100	420,100	634,600	709,893	656,190	664,720	673,362	682,116	690,983	699,966
500	Indemnities	Constant	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration			\$ 12,524,310	\$ 11,674,704	\$ 12,944,850	\$ 16,254,689	\$ 15,914,050	\$ 18,178,834	\$ 17,935,643	\$ 18,406,201	\$ 18,940,681	\$ 19,491,773	\$ 20,060,002	\$ 20,645,909
Finance														
100	Salaries & Wages	Labor	\$ 1,602,950	\$ 2,006,100	\$ 2,181,400	\$ 2,472,925	\$ 2,550,200	\$ 3,051,659	\$ 3,051,659	\$ 3,127,950	\$ 3,221,789	\$ 3,318,443	\$ 3,417,996	\$ 3,520,536
200	Services	Other 200	7,241,405	13,768,110	7,491,000	7,322,500	7,297,500	6,345,100	7,886,650	8,154,796	8,432,059	8,718,749	9,015,187	9,321,703
2xx	SMIP/GARP	Constant	5,050,000	5,175,000	5,200,000	10,250,000	11,450,000	15,000,000	15,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
300	Materials and Supplies	Constant	752,735	806,436	816,400	436,200	86,200	86,725	96,305	10,096,305	10,096,305	10,096,305	10,096,305	10,096,305
400	Equipment	Other 300	599,800	610,800	560,800	10,800	37,800	13,300	16,800	16,884	16,968	17,053	17,139	17,224
500	Indemnities	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Constant	10,948,900	12,605,000	13,243,100	14,000,000	10,537,000	9,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000
Subtotal Finance			\$ 26,195,790	\$ 34,971,446	\$ 29,492,700	\$ 34,492,425	\$ 31,958,700	\$ 33,496,784	\$ 37,051,414	\$ 57,395,936	\$ 57,767,122	\$ 58,150,550	\$ 58,546,626	\$ 58,955,768
Planning and Engineering														
100	Salaries & Wages	Labor	\$ 1,198,100	\$ 1,215,300	\$ 1,268,860	\$ 1,231,738	\$ 1,225,000	\$ 1,472,207	\$ 1,848,821	\$ 1,895,042	\$ 1,951,893	\$ 2,010,450	\$ 2,070,763	\$ 2,132,886
200	Services	Other 200	488,000	732,500	498,500	492,900	497,500	1,002,500	1,027,500	1,062,435	1,098,558	1,135,909	1,174,530	1,214,464
300	Materials and Supplies	Other 300	146,000	148,100	177,300	198,000	187,500	188,440	193,420	194,387	195,359	196,336	197,318	198,304
400	Equipment	Other 400	79,000	111,500	220,000	59,000	59,000	60,650	61,350	62,148	62,955	63,774	64,603	65,443
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning and Engineering			\$ 1,911,100	\$ 2,207,400	\$ 2,164,660	\$ 1,981,638	\$ 1,969,000	\$ 2,723,797	\$ 3,131,091	\$ 3,214,011	\$ 3,308,765	\$ 3,406,468	\$ 3,507,213	\$ 3,611,097
Operations														
100	Salaries & Wages	Labor	\$ 69,949,000	\$ 70,297,400	\$ 69,343,900	\$ 71,357,193	\$ 74,515,100	\$ 78,910,054	\$ 81,757,426	\$ 83,801,362	\$ 86,756,052	\$ 89,798,764	\$ 92,932,747	\$ 95,720,319
200	Services	Other 200	49,475,000	53,556,100	60,348,600	59,381,100	59,373,700	65,062,200	70,368,535	72,761,065	75,234,941	77,792,929	80,437,889	83,172,777
220	Power	Energy	27,128,000	29,362,900	26,994,900	25,714,000	27,845,000	23,265,000	24,313,500	24,313,500	24,313,500	25,042,905	25,794,192	26,568,018
221	Gas	Gas	3,780,000	4,000,000	4,600,000	4,000,000	5,692,000	5,538,900	5,593,650	5,817,396	5,817,396	5,991,918	6,171,675	6,356,826
300	Materials and Supplies	Other 300	16,332,000	17,255,800	17,240,200	17,855,400	18,286,100	19,406,729	20,101,793	20,202,302	20,303,313	20,404,830	20,506,854	20,609,388
307	Chemicals	Chemicals	22,502,000	23,537,400	23,435,500	23,668,950	22,575,800	21,880,928	21,872,905	23,338,390	24,225,248	24,467,501	24,712,176	24,959,298
400	Equipment	Other 400	2,033,000	1,527,800	1,980,700	1,577,800	1,798,000	2,047,100	1,981,897	2,007,662	2,033,761	2,060,200	2,086,983	2,114,114
500	Indemnities	Constant	-	-	-	-	-	1,000	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Operations			\$ 191,199,000	\$ 199,537,400	\$ 203,943,800	\$ 203,554,443	\$ 210,085,700	\$ 216,111,911	\$ 225,989,706	\$ 232,241,676	\$ 238,684,213	\$ 245,559,047	\$ 252,642,516	\$ 259,500,740
Planning & Environmental Services														
100	Salaries & Wages	Labor	\$ 9,353,800	\$ 10,316,700	\$ 10,944,400	\$ 12,569,537	\$ 13,024,700	\$ 14,219,367	\$ 14,714,696	\$ 15,082,563	\$ 15,678,076	\$ 16,221,839	\$ 16,708,454	\$ 17,209,837
200	Services	Other 200	18,102,800	19,579,700	19,299,800	22,374,200	25,254,200	25,361,592	18,757,200	19,394,945	20,054,373	20,736,222	21,441,253	22,170,256
300	Materials and Supplies	Other 300	1,298,500	1,362,100	1,179,600	1,349,600	1,408,100	1,517,285	1,428,850	1,435,994	1,443,174	1,450,390	1,457,642	1,464,930
400	Equipment	Other 400	783,400	930,500	886,400	583,650	853,450	901,513	818,441	829,081	839,859	850,777	861,837	873,041
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning & Environmental Services			\$ 29,538,500	\$ 32,189,000	\$ 32,310,200	\$ 36,876,987	\$ 40,540,450	\$ 41,999,757	\$ 35,719,187	\$ 36,742,583	\$ 38,015,482	\$ 39,259,227	\$ 40,469,186	\$ 41,718,064

Cost Center/Expense Class	Escalation Reference	Historical					Study Period							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Public Affairs														
100	Salaries & Wages	Labor	\$ 2,203,200	\$ 2,301,900	\$ 2,424,900	\$ 2,755,277	\$ 2,831,100	\$ 2,860,744	\$ 5,246,556	\$ 5,377,720	\$ 5,539,051	\$ 5,705,223	\$ 5,876,380	\$ 6,052,671
200	Services	Other 200	3,874,500	7,645,200	7,767,700	8,712,700	9,013,200	7,848,700	8,348,386	8,632,231	8,925,727	9,229,202	9,542,995	9,867,456
300	Materials and Supplies	Other 300	320,800	320,800	371,800	372,800	376,300	483,500	539,124	541,820	544,529	547,251	549,988	552,738
400	Equipment	Other 400	12,500	15,500	15,500	15,500	15,500	15,500	15,500	15,702	15,906	16,112	16,322	16,534
500	Indemnities	Constant	-	-	-	-	-	400,000	500,000	500,000	500,000	500,000	500,000	500,000
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Affairs			\$ 6,411,000	\$ 10,283,400	\$ 10,579,900	\$ 11,856,277	\$ 12,236,100	\$ 11,608,444	\$ 14,649,566	\$ 15,067,472	\$ 15,525,213	\$ 15,997,788	\$ 16,485,684	\$ 16,989,399
PWD Operating and Maintenance Expenses Summary														
100	Salaries & Wages		\$ 91,841,000	\$ 93,863,950	\$ 94,023,910	\$ 99,059,709	\$ 102,961,600	\$ 110,365,166	\$ 116,470,294	\$ 119,382,051	\$ 123,547,199	\$ 127,767,064	\$ 132,040,056	\$ 136,000,978
200	Services		83,150,800	98,281,600	99,536,200	104,129,400	106,658,200	111,911,892	112,564,371	116,391,560	120,348,873	124,440,734	128,671,719	133,046,558
220	Power		27,128,000	29,362,900	26,994,900	25,714,000	27,845,000	23,265,000	24,313,500	24,313,500	24,313,500	25,042,905	25,794,192	26,568,018
221	Gas		3,780,000	4,000,000	4,600,000	4,000,000	5,692,000	5,538,900	5,593,650	5,817,396	5,817,396	5,991,918	6,171,675	6,356,826
2xx	SMIP/GARP		5,050,000	5,175,000	5,200,000	10,250,000	11,450,000	15,000,000	15,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
300	Materials and Supplies		19,628,600	20,692,400	20,557,000	21,427,550	21,486,050	22,908,685	23,511,710	33,628,787	33,746,449	33,864,700	33,983,542	34,102,978
307	Chemicals		22,502,000	23,537,400	23,435,500	23,668,950	22,575,800	21,880,928	21,872,905	23,338,390	24,225,248	24,467,501	24,712,176	24,959,298
400	Equipment		3,650,400	3,245,100	3,745,500	2,666,850	3,398,350	3,747,956	3,550,178	3,596,196	3,642,811	3,690,032	3,737,866	3,786,321
500	Indemnities		100,000	100,000	100,000	100,000	100,000	501,000	600,000	600,000	600,000	600,000	600,000	600,000
800	Transfers		10,948,900	12,605,000	13,243,100	14,000,000	10,537,000	9,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000	11,000,000
Total PWD Operating and Maintenance Expenses Summary			\$ 267,779,700	\$ 290,863,350	\$ 291,436,110	\$ 305,016,459	\$ 312,704,000	\$ 324,119,527	\$ 334,476,608	\$ 363,067,879	\$ 372,241,476	\$ 381,864,855	\$ 391,711,228	\$ 401,420,977
CHECK			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

FINPLAN17.XLS
OTHER DEPT O&M

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Cost Center/Expense Class	Escalation Reference	Historical												
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Other Department O&M													Other Dept O&M - 1	
Division of Technology														
100	Salaries & Wages	Labor	\$ 3,994,808	\$ 4,039,582	\$ 4,621,214	\$ 5,233,042	\$ 5,416,218	\$ 5,893,231	\$ 6,395,691	\$ 6,555,584	\$ 6,752,251	\$ 6,954,819	\$ 7,163,463	\$ 7,378,367
200	Services	Other 200	6,797,598	9,214,801	9,567,462	10,226,939	9,957,749	12,605,190	14,639,303	15,137,040	15,651,699	16,183,857	16,734,108	17,303,068
300	Materials and Supplies	Other 300	737,735	791,307	944,117	1,609,074	848,074	1,634,654	1,726,775	1,735,409	1,744,086	1,752,806	1,761,570	1,770,378
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Division of Technology			\$ 11,530,141	\$ 14,045,690	\$ 15,132,793	\$ 17,069,055	\$ 16,222,041	\$ 20,133,075	\$ 22,761,770	\$ 23,428,032	\$ 24,148,036	\$ 24,891,482	\$ 25,659,142	\$ 26,451,813
Mayor's Office of Transportation & Utilities and Office of Sustainability														
100	Salaries & Wages	Labor	\$ 56,160	\$ 169,948	\$ 208,176	\$ 227,983	\$ 201,861	\$ 202,424	\$ 200,805	\$ 205,825	\$ 212,000	\$ 218,360	\$ 224,910	\$ 231,658
200	Services	Other 200	-	-	-	-	30,000	29,000	30,000	31,020	32,075	33,165	34,293	35,459
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustaina			\$ 56,160	\$ 169,948	\$ 208,176	\$ 227,983	\$ 231,861	\$ 231,424	\$ 230,805	\$ 236,845	\$ 244,074	\$ 251,525	\$ 259,203	\$ 267,117
Philadelphia Water, Sewer and Stormwater Rate Board														
100	Salaries & Wages	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,800	\$ 120,000	\$ 123,000	\$ 126,690	\$ 130,491	\$ 134,405	\$ 138,438
200	Services	Other 200	-	-	-	-	-	95,851	850,000	878,900	908,783	939,681	971,630	1,004,666
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board			\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99,651	\$ 970,000	\$ 1,001,900	\$ 1,035,473	\$ 1,070,172	\$ 1,106,036	\$ 1,143,103
Public Property														
100	Salaries & Wages	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services	Property Leases	3,725,560	3,739,360	3,786,428	3,959,919	4,042,633	4,042,633	4,256,817	4,327,445	4,396,538	4,465,208	4,618,727	4,713,914
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Property			\$ 3,725,560	\$ 3,739,360	\$ 3,786,428	\$ 3,959,919	\$ 4,042,633	\$ 4,042,633	\$ 4,256,817	\$ 4,327,445	\$ 4,396,538	\$ 4,465,208	\$ 4,618,727	\$ 4,713,914
Fleet Management														
100	Salaries & Wages	Labor	\$ 2,387,074	\$ 2,554,406	\$ 2,521,284	\$ 2,602,612	\$ 2,526,922	\$ 2,925,816	\$ 2,644,992	\$ 2,711,117	\$ 2,792,450	\$ 2,876,224	\$ 2,962,510	\$ 3,051,386
200	Services	Other 200	1,256,788	894,932	1,438,785	1,488,271	1,469,209	1,417,465	1,478,740	1,529,017	1,581,004	1,634,758	1,690,340	1,747,811
300	Materials and Supplies	Other 300	3,958,404	3,769,562	4,225,827	4,232,497	3,875,181	3,412,351	4,053,839	4,074,108	4,094,479	4,114,951	4,135,526	4,156,204
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Fleet Management			\$ 7,602,266	\$ 7,218,900	\$ 8,185,896	\$ 8,323,380	\$ 7,871,312	\$ 7,755,632	\$ 8,177,571	\$ 8,314,242	\$ 8,467,933	\$ 8,625,933	\$ 8,788,376	\$ 8,955,400

Cost Center/Expense Class	Escalation Reference	Historical												
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
City Finance (020)														
100	Salaries & Wages	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
1xx	Benefits	Other Benefits	38,395,202	40,369,391	41,044,344	48,293,131	47,276,002	52,651,923	49,482,599	52,288,210	54,641,304	57,068,922	59,615,089	62,457,144
191	Pension	Pension	38,770,167	35,507,147	38,305,052	40,861,335	46,646,526	55,552,438	54,021,616	55,761,112	57,617,957	58,464,941	59,382,840	60,804,061
190	Pension Obligations	Pension Obligations	9,843,048	20,452,252	22,450,403	11,415,451	12,468,686	13,362,362	12,519,101	12,519,101	12,519,101	12,519,101	12,519,101	12,519,101
200	Services	Other 200	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	3,046,915	5,090,210	6,036,098	3,840,767	5,440,242	6,952,193	4,640,505	4,640,505	4,640,505	4,640,505	4,640,505	4,640,505
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal City Finance (020)			\$ 90,055,332	\$ 101,418,999	\$ 107,835,896	\$ 104,410,684	\$ 111,831,456	\$ 128,518,916	\$ 120,663,820	\$ 125,208,927	\$ 129,418,867	\$ 132,693,469	\$ 136,157,535	\$ 140,420,811
City Finance (270)														
100	Salaries & Wages	Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx (270)	Benefits (270)	Other Benefits	-	-	-	-	-	-	5,515,430	5,828,150	6,090,430	6,361,017	6,644,818	6,961,600
191 (270)	Pension (270)	Pension	-	-	-	-	-	-	5,778,569	5,964,639	6,163,262	6,253,862	6,352,047	6,504,072
190 (270)	Pension Obligations (270)	Pension Obligations	-	-	-	-	-	-	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239
200	Services	Other 200	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal City Finance (270)			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,497,238	\$ 12,996,027	\$ 13,456,931	\$ 13,818,118	\$ 14,200,104	\$ 14,668,910
Revenue														
100	Salaries & Wages	Labor	\$ 9,729,716	\$ 10,020,393	\$ 9,701,251	\$ 10,013,594	\$ 9,948,364	\$ 10,844,659	\$ 8,641,793	\$ 8,857,838	\$ 9,123,573	\$ 9,397,280	\$ 9,679,198	\$ 9,969,574
200	Services	Other 200	3,677,818	4,020,068	4,133,603	4,241,117	4,477,102	4,958,726	5,041,888	5,213,313	5,390,565	5,573,844	5,763,355	5,959,309
300	Materials and Supplies	Other 300	525,300	561,421	688,157	630,784	594,307	831,018	1,365,163	1,371,988	1,378,848	1,385,743	1,392,671	1,399,635
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	315	170	481	1,273	578	120	926	926	926	926	926	926
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Revenue			\$ 13,933,149	\$ 14,602,052	\$ 14,523,492	\$ 14,886,768	\$ 15,020,351	\$ 16,634,523	\$ 15,049,769	\$ 15,444,064	\$ 15,893,912	\$ 16,357,792	\$ 16,836,150	\$ 17,329,444
Procurement														
100	Salaries & Wages	Labor	\$ 45,856	\$ 68,882	\$ 62,746	\$ 60,866	\$ 77,339	\$ 85,470	\$ 79,709	\$ 81,702	\$ 84,153	\$ 86,678	\$ 89,278	\$ 91,957
200	Services	Other 200	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Procurement			\$ 45,856	\$ 68,882	\$ 62,746	\$ 60,866	\$ 77,339	\$ 85,470	\$ 79,709	\$ 81,702	\$ 84,153	\$ 86,678	\$ 89,278	\$ 91,957
Law														
100	Salaries & Wages	Labor	\$ 2,286,502	\$ 2,281,362	\$ 2,192,613	\$ 2,137,491	\$ 2,085,052	\$ 2,369,450	\$ 2,111,272	\$ 2,164,053	\$ 2,228,975	\$ 2,295,844	\$ 2,364,719	\$ 2,435,661
200	Services	Other 200	672,341	543,724	670,808	309,631	183,651	166,099	246,641	255,027	263,698	272,663	281,934	291,520
300	Materials and Supplies	Other 300	33,976	36,392	16,663	8,002	18,376	36,469	13,189	13,255	13,321	13,388	13,455	13,522
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Law			\$ 2,992,819	\$ 2,861,478	\$ 2,880,084	\$ 2,455,124	\$ 2,287,079	\$ 2,572,018	\$ 2,371,102	\$ 2,432,335	\$ 2,505,994	\$ 2,581,895	\$ 2,660,108	\$ 2,740,703

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Other Department Operating and Maintenance Expenses Summary													
100 Salaries & Wages		\$ 18,500,116	\$ 19,134,573	\$ 19,307,284	\$ 20,275,588	\$ 20,255,756	\$ 22,324,850	\$ 20,194,262	\$ 20,699,119	\$ 21,320,092	\$ 21,959,695	\$ 22,618,486	\$ 23,297,040
1xx Benefits		38,395,202	40,369,391	41,044,344	48,293,131	47,276,002	52,651,923	49,482,599	52,288,210	54,641,304	57,068,922	59,615,089	62,457,144
191 Pension		38,770,167	35,507,147	38,305,052	40,861,335	46,646,526	55,552,438	54,021,616	55,761,112	57,617,957	58,464,941	59,382,840	60,804,061
190 Pension Obligations		9,843,048	20,452,252	22,450,403	11,415,451	12,468,686	13,362,362	12,519,101	12,519,101	12,519,101	12,519,101	12,519,101	12,519,101
1xx (270) Benefits (270)		-	-	-	-	-	-	5,515,430	5,828,150	6,090,430	6,361,017	6,644,818	6,961,600
191 (270) Pension (270)		-	-	-	-	-	-	5,778,569	5,964,639	6,163,262	6,253,862	6,352,047	6,504,072
190 (270) Pension Obligations (270)		-	-	-	-	-	-	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239
200 Services		16,130,105	18,412,885	19,597,086	20,225,877	20,160,344	23,314,964	26,543,390	27,371,761	28,224,361	29,103,177	30,094,387	31,055,746
220 Power		-	-	-	-	-	-	-	-	-	-	-	-
221 Gas		-	-	-	-	-	-	-	-	-	-	-	-
300 Materials and Supplies		5,255,415	5,158,682	5,874,764	6,480,357	5,335,938	5,914,492	7,158,966	7,194,760	7,230,734	7,266,888	7,303,222	7,339,738
307 Chemicals		-	-	-	-	-	-	-	-	-	-	-	-
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		3,047,230	5,090,380	6,036,579	3,842,040	5,440,820	6,952,313	4,641,430	4,641,430	4,641,430	4,641,430	4,641,430	4,641,430
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Total Other Department Operating and Maintenance Expenses Summary		\$ 129,941,283	\$ 144,125,309	\$ 152,615,511	\$ 151,393,779	\$ 157,584,072	\$ 180,073,342	\$ 187,058,601	\$ 193,471,520	\$ 199,651,910	\$ 204,842,272	\$ 210,374,660	\$ 216,783,171
CHECK		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD Direct and Other Department Class 100 Penion & Benefits/Class 100 Ratio		\$ 100,874,990	\$ 104,392,548	\$ 108,902,414	\$ 118,718,437	\$ 118,414,751	\$ 125,010,184	\$ 133,332,567	\$ 136,665,881	\$ 140,765,857	\$ 144,988,833	\$ 149,338,498	\$ 153,818,653
		86.3%	92.3%	93.5%	84.7%	89.8%	97.2%	87.0%	88.2%	88.6%	88.3%	88.1%	88.3%
Benefits/Class 100 Ratio		38.1%	38.7%	37.7%	40.7%	39.9%	42.1%	37.1%	38.3%	38.8%	39.4%	39.9%	40.6%
Pension/Class 100 Ratio		38.4%	34.0%	35.2%	34.4%	39.4%	44.4%	40.5%	40.8%	40.9%	40.3%	39.8%	39.5%
Pension Obligations/Class 100 Ratio		9.8%	19.6%	20.6%	9.6%	10.5%	10.7%	9.4%	9.2%	8.9%	8.6%	8.4%	8.1%
Other Department Operating and Maintenance Expenses Summary - Annual Increase													
100 Salaries & Wages		-1.48%	3.43%	0.90%	5.02%	-0.10%	10.21%	-9.54%	2.50%	3.00%	3.00%	3.00%	3.00%
1xx Benefits		-9.19%	5.14%	1.67%	17.66%	-2.11%	11.37%	-6.02%	5.67%	4.50%	4.44%	4.46%	4.77%
191 Pension		18.49%	-8.42%	7.88%	6.67%	14.16%	19.09%	-2.76%	3.22%	3.33%	1.47%	1.57%	2.39%
190 Pension Obligations		4.17%	107.78%	9.77%	-49.15%	9.23%	7.17%	-6.31%	0.00%	0.00%	0.00%	0.00%	0.00%
1xx (270) Benefits (270)		0.00%							5.67%	4.50%	4.44%	4.46%	4.77%
191 (270) Pension (270)		0.00%							3.22%	3.33%	1.47%	1.57%	2.39%
190 (270) Pension Obligations (270)		0.00%							0.00%	0.00%	0.00%	0.00%	0.00%
200 Services		18.48%	14.15%	6.43%	3.21%	-0.32%	15.65%	13.85%	3.12%	3.11%	3.11%	3.41%	3.19%
220 Power		0.00%											
221 Gas		0.00%											
300 Materials and Supplies		-13.81%	-1.84%	13.88%	10.31%	-17.66%	10.84%	21.04%	0.50%	0.50%	0.50%	0.50%	0.50%
307 Chemicals		0.00%											
400 Equipment		0.00%											
500 Indemnities		-43.40%	67.05%	18.59%	-36.35%	41.61%	27.78%	-33.24%	0.00%	0.00%	0.00%	0.00%	0.00%
800 Transfers		0.00%											
Total Other Department Operating and Maintenance Expenses Summary - An		1.26%	10.92%	5.89%	-0.80%	4.09%	14.27%	3.88%	3.43%	3.19%	2.60%	2.70%	3.05%

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Other Department Operating and Maintenance Expenses Summary - 2 Year Average Increase													
100	Salaries & Wages			0.93%	2.94%	2.43%	4.93%	-0.15%	-3.71%	2.75%	3.00%	3.00%	3.00%
1xx	Benefits			-0.98%	9.37%	7.32%	4.42%	2.31%	-0.35%	5.08%	4.47%	4.45%	4.61%
191	Pension			5.39%	7.27%	10.35%	16.60%	7.62%	0.19%	3.27%	2.40%	1.52%	1.98%
190	Pension Obligations			33.44%	-25.29%	-25.48%	8.19%	0.20%	-3.21%	0.00%	0.00%	0.00%	0.00%
1xx (270)	Benefits (270)			0.00%						5.08%	4.47%	4.45%	4.61%
191 (270)	Pension (270)			0.00%						3.27%	2.40%	1.52%	1.98%
190 (270)	Pension Obligations (270)			0.00%						0.00%	0.00%	0.00%	0.00%
200	Services			12.91%	4.81%	1.43%	7.37%	14.74%	8.35%	3.12%	3.11%	3.26%	3.30%
220	Power			0.00%									
221	Gas			0.00%									
300	Materials and Supplies			-1.23%	12.08%	-4.70%	-4.47%	15.83%	10.29%	0.50%	0.50%	0.50%	0.50%
307	Chemicals			0.00%									
400	Equipment			0.00%									
500	Indemnities			3.89%	-13.12%	-5.06%	34.52%	-7.64%	-18.29%	0.00%	0.00%	0.00%	0.00%
800	Transfers			0.00%									
Total Other Department Operating and Maintenance Expenses Summary - 2 Year Average Increase				5.95%	2.49%	1.61%	9.06%	8.95%	3.65%	3.31%	2.90%	2.65%	2.87%

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustments													Other Dept O&M - 2
Division of Technology													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Division of Technology							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Public Property													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Public Property							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Fleet Management							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Finance													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
1xx	Benefits						-	-	223,000	460,000	683,000	931,000	
191	Pension						-	-	239,000	485,000	699,000	906,000	
190	Pension Obligations						-	-	54,000	105,000	150,000	187,000	
200	Services						-	-	-	-	-	-	
300	Materials and Supplies						-	-	-	-	-	-	
400	Equipment						-	-	-	-	-	-	
500	Indemnities						-	-	500,000	500,000	500,000	500,000	
800	Transfers						-	-	-	-	-	-	
Subtotal City Finance							\$ -	\$ -	\$ 1,016,000	\$ 1,550,000	\$ 2,032,000	\$ 2,460,000	\$ 2,524,000
City Finance (270)													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
1xx (270)	Benefits (270)						-	-	-	-	-	-	
191 (270)	Pension (270)						-	-	-	-	-	-	
190 (270)	Pension Obligations (270)						-	-	-	-	-	-	
200	Services						-	-	-	-	-	-	
300	Materials and Supplies						-	-	-	-	-	-	
400	Equipment						-	-	-	-	-	-	
500	Indemnities						-	-	-	-	-	-	
800	Transfers						-	-	-	-	-	-	
Subtotal City Finance (270)							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
200	Services						-	-	-	-	-	-	
300	Materials and Supplies						-	-	-	-	-	-	
400	Equipment						-	-	-	-	-	-	
500	Indemnities						-	-	-	-	-	-	
800	Transfers						-	-	-	-	-	-	
Subtotal Revenue							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Procurement													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
200	Services						-	-	-	-	-	-	
300	Materials and Supplies						-	-	-	-	-	-	
400	Equipment						-	-	-	-	-	-	
500	Indemnities						-	-	-	-	-	-	
800	Transfers						-	-	-	-	-	-	
Subtotal Procurement							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
200	Services						-	-	-	-	-	-	
300	Materials and Supplies						-	-	-	-	-	-	
400	Equipment						-	-	-	-	-	-	
500	Indemnities						-	-	-	-	-	-	
800	Transfers						-	-	-	-	-	-	
Subtotal Law							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustments Summary													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx	Benefits						-	-	223,000	460,000	683,000	888,000	931,000
191	Pension						-	-	239,000	485,000	699,000	885,000	906,000
190	Pension Obligations						-	-	54,000	105,000	150,000	187,000	187,000
1xx (270)	Benefits (270)						-	-	-	-	-	-	-
191 (270)	Pension (270)						-	-	-	-	-	-	-
190 (270)	Pension Obligations (270)						-	-	-	-	-	-	-
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
221	Gas						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	500,000	500,000	500,000	500,000	500,000
800	Transfers						-	-	-	-	-	-	-
Total Other Department O&M Adjustments Summary							\$ -	\$ -	\$ 1,016,000	\$ 1,550,000	\$ 2,032,000	\$ 2,460,000	\$ 2,524,000
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
PWD Adjusted Other Department O&M												Other Dept O&M - 3	
Division of Technology													
100 Salaries & Wages		\$ 3,994,808	\$ 4,039,582	\$ 4,621,214	\$ 5,233,042	\$ 5,416,218	\$ 5,893,231	\$ 6,395,691	\$ 6,555,584	\$ 6,752,251	\$ 6,954,819	\$ 7,163,463	\$ 7,378,367
200 Services		6,797,598	9,214,801	9,567,462	10,226,939	9,957,749	12,605,190	14,639,303	15,137,040	15,651,699	16,183,857	16,734,108	17,303,068
300 Materials and Supplies		737,735	791,307	944,117	1,609,074	848,074	1,634,654	1,726,775	1,735,409	1,744,086	1,752,806	1,761,570	1,770,378
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		-	-	-	-	-	-	-	-	-	-	-	-
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Division of Technology		\$ 11,530,141	\$ 14,045,690	\$ 15,132,793	\$ 17,069,055	\$ 16,222,041	\$ 20,133,075	\$ 22,761,770	\$ 23,428,032	\$ 24,148,036	\$ 24,891,482	\$ 25,659,142	\$ 26,451,813
Mayor's Office of Transportation & Utilities and Office of Sustainability													
100 Salaries & Wages		\$ 56,160	\$ 169,948	\$ 208,176	\$ 227,983	\$ 201,861	\$ 202,424	\$ 200,805	\$ 205,825	\$ 212,000	\$ 218,360	\$ 224,910	\$ 231,658
200 Services		-	-	-	-	30,000	29,000	30,000	31,020	32,075	33,165	34,293	35,459
300 Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		-	-	-	-	-	-	-	-	-	-	-	-
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustaina		\$ 56,160	\$ 169,948	\$ 208,176	\$ 227,983	\$ 231,861	\$ 231,424	\$ 230,805	\$ 236,845	\$ 244,074	\$ 251,525	\$ 259,203	\$ 267,117
Philadelphia Water, Sewer and Stormwater Rate Board													
100 Salaries & Wages		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,800	\$ 120,000	\$ 123,000	\$ 126,690	\$ 130,491	\$ 134,405	\$ 138,438
200 Services		-	-	-	-	-	95,851	850,000	878,900	908,783	939,681	971,630	1,004,666
300 Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		-	-	-	-	-	-	-	-	-	-	-	-
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99,651	\$ 970,000	\$ 1,001,900	\$ 1,035,473	\$ 1,070,172	\$ 1,106,036	\$ 1,143,103
Public Property													
100 Salaries & Wages		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services		3,725,560	3,739,360	3,786,428	3,959,919	4,042,633	4,042,633	4,256,817	4,327,445	4,396,538	4,465,208	4,618,727	4,713,914
300 Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		-	-	-	-	-	-	-	-	-	-	-	-
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Property		\$ 3,725,560	\$ 3,739,360	\$ 3,786,428	\$ 3,959,919	\$ 4,042,633	\$ 4,042,633	\$ 4,256,817	\$ 4,327,445	\$ 4,396,538	\$ 4,465,208	\$ 4,618,727	\$ 4,713,914
Fleet Management													
100 Salaries & Wages		\$ 2,387,074	\$ 2,554,406	\$ 2,521,284	\$ 2,602,612	\$ 2,526,922	\$ 2,925,816	\$ 2,644,992	\$ 2,711,117	\$ 2,792,450	\$ 2,876,224	\$ 2,962,510	\$ 3,051,386
200 Services		1,256,788	894,932	1,438,785	1,488,271	1,469,209	1,417,465	1,478,740	1,529,017	1,581,004	1,634,758	1,690,340	1,747,811
300 Materials and Supplies		3,958,404	3,769,562	4,225,827	4,232,497	3,875,181	3,412,351	4,053,839	4,074,108	4,094,479	4,114,951	4,135,526	4,156,204
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		-	-	-	-	-	-	-	-	-	-	-	-
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Fleet Management		\$ 7,602,266	\$ 7,218,900	\$ 8,185,896	\$ 8,323,380	\$ 7,871,312	\$ 7,755,632	\$ 8,177,571	\$ 8,314,242	\$ 8,467,933	\$ 8,625,933	\$ 8,788,376	\$ 8,955,400

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Finance													
100	Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx	Benefits	38,395,202	40,369,391	41,044,344	48,293,131	47,276,002	52,651,923	49,482,599	52,511,210	55,101,304	57,751,922	60,503,089	63,388,144
191	Pension	38,770,167	35,507,147	38,305,052	40,861,335	46,646,526	55,552,438	54,021,616	56,000,112	58,102,957	59,163,941	60,267,840	61,710,061
190	Pension Obligations	9,843,048	20,452,252	22,450,403	11,415,451	12,468,686	13,362,362	12,519,101	12,573,101	12,624,101	12,669,101	12,706,101	12,706,101
200	Services	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	3,046,915	5,090,210	6,036,098	3,840,767	5,440,242	6,952,193	4,640,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal City Finance		\$ 90,055,332	\$ 101,418,999	\$ 107,835,896	\$ 104,410,684	\$ 111,831,456	\$ 128,518,916	\$ 120,663,820	\$ 126,224,927	\$ 130,968,867	\$ 134,725,469	\$ 138,617,535	\$ 142,944,811
City Finance (270)													
100	Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx (270)	Benefits (270)	-	-	-	-	-	-	5,515,430	5,828,150	6,090,430	6,361,017	6,644,818	6,961,600
191 (270)	Pension (270)	-	-	-	-	-	-	5,778,569	5,964,639	6,163,262	6,253,862	6,352,047	6,504,072
190 (270)	Pension Obligations (270)	-	-	-	-	-	-	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239
200	Services	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal City Finance (270)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,497,238	\$ 12,996,027	\$ 13,456,931	\$ 13,818,118	\$ 14,200,104	\$ 14,668,910
Revenue													
100	Salaries & Wages	\$ 9,729,716	\$ 10,020,393	\$ 9,701,251	\$ 10,013,594	\$ 9,948,364	\$ 10,844,659	\$ 8,641,793	\$ 8,857,838	\$ 9,123,573	\$ 9,397,280	\$ 9,679,198	\$ 9,969,574
200	Services	3,677,818	4,020,068	4,133,603	4,241,117	4,477,102	4,958,726	5,041,888	5,213,313	5,390,565	5,573,844	5,763,355	5,959,309
300	Materials and Supplies	525,300	561,421	688,157	630,784	594,307	831,018	1,365,163	1,371,988	1,378,848	1,385,743	1,392,671	1,399,635
400	Equipment	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	315	170	481	1,273	578	120	926	926	926	926	926	926
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Revenue		\$ 13,933,149	\$ 14,602,052	\$ 14,523,492	\$ 14,886,768	\$ 15,020,351	\$ 16,634,523	\$ 15,049,769	\$ 15,444,064	\$ 15,893,912	\$ 16,357,792	\$ 16,836,150	\$ 17,329,444
Procurement													
100	Salaries & Wages	\$ 45,856	\$ 68,882	\$ 62,746	\$ 60,866	\$ 77,339	\$ 85,470	\$ 79,709	\$ 81,702	\$ 84,153	\$ 86,678	\$ 89,278	\$ 91,957
200	Services	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Procurement		\$ 45,856	\$ 68,882	\$ 62,746	\$ 60,866	\$ 77,339	\$ 85,470	\$ 79,709	\$ 81,702	\$ 84,153	\$ 86,678	\$ 89,278	\$ 91,957
Law													
100	Salaries & Wages	\$ 2,286,502	\$ 2,281,362	\$ 2,192,613	\$ 2,137,491	\$ 2,085,052	\$ 2,369,450	\$ 2,111,272	\$ 2,164,053	\$ 2,228,975	\$ 2,295,844	\$ 2,364,719	\$ 2,435,661
200	Services	672,341	543,724	670,808	309,631	183,651	166,099	246,641	255,027	263,698	272,663	281,934	291,520
300	Materials and Supplies	33,976	36,392	16,663	8,002	18,376	36,469	13,189	13,255	13,321	13,388	13,455	13,522
400	Equipment	-	-	-	-	-	-	-	-	-	-	-	-
500	Indemnities	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Law		\$ 2,992,819	\$ 2,861,478	\$ 2,880,084	\$ 2,455,124	\$ 2,287,079	\$ 2,572,018	\$ 2,371,102	\$ 2,432,335	\$ 2,505,994	\$ 2,581,895	\$ 2,660,108	\$ 2,740,703

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Other Department Operating and Maintenance Expenses Summary													
100 Salaries & Wages		\$ 18,500,116	\$ 19,134,573	\$ 19,307,284	\$ 20,275,588	\$ 20,255,756	\$ 22,324,850	\$ 20,194,262	\$ 20,699,119	\$ 21,320,092	\$ 21,959,695	\$ 22,618,486	\$ 23,297,040
1xx Benefits		38,395,202	40,369,391	41,044,344	48,293,131	47,276,002	52,651,923	49,482,599	52,511,210	55,101,304	57,751,922	60,503,089	63,388,144
191 Pension		38,770,167	35,507,147	38,305,052	40,861,335	46,646,526	55,552,438	54,021,616	56,000,112	58,102,957	59,163,941	60,267,840	61,710,061
190 Pension Obligations		9,843,048	20,452,252	22,450,403	11,415,451	12,468,686	13,362,362	12,519,101	12,573,101	12,624,101	12,669,101	12,706,101	12,706,101
1xx (270) Benefits (270)		-	-	-	-	-	-	5,515,430	5,828,150	6,090,430	6,361,017	6,644,818	6,961,600
191 (270) Pension (270)		-	-	-	-	-	-	5,778,569	5,964,639	6,163,262	6,253,862	6,352,047	6,504,072
190 (270) Pension Obligations (270)		-	-	-	-	-	-	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239
200 Services		16,130,105	18,412,885	19,597,086	20,225,877	20,160,344	23,314,964	26,543,390	27,371,761	28,224,361	29,103,177	30,094,387	31,055,746
220 Power		-	-	-	-	-	-	-	-	-	-	-	-
221 Gas		-	-	-	-	-	-	-	-	-	-	-	-
300 Materials and Supplies		5,255,415	5,158,682	5,874,764	6,480,357	5,335,938	5,914,492	7,158,966	7,194,760	7,230,734	7,266,888	7,303,222	7,339,738
307 Chemicals		-	-	-	-	-	-	-	-	-	-	-	-
400 Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500 Indemnities		3,047,230	5,090,380	6,036,579	3,842,040	5,440,820	6,952,313	4,641,430	5,141,430	5,141,430	5,141,430	5,141,430	5,141,430
800 Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Total Other Department Operating and Maintenance Expenses Summary		\$ 129,941,283	\$ 144,125,309	\$ 152,615,511	\$ 151,393,779	\$ 157,584,072	\$ 180,073,342	\$ 187,058,601	\$ 194,487,520	\$ 201,201,910	\$ 206,874,272	\$ 212,834,660	\$ 219,307,171
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Direct and Other Department Class 100		\$ 100,874,990	\$ 104,392,548	\$ 108,902,414	\$ 118,718,437	\$ 118,414,751	\$ 125,010,184	\$ 133,332,567	\$ 137,249,681	\$ 141,950,857	\$ 146,722,833	\$ 151,564,498	\$ 156,111,153
Penion & Benefits/Class 100 Ratio		86.3%	92.3%	93.5%	84.7%	89.8%	97.2%	87.0%	88.2%	88.6%	88.3%	88.1%	88.3%
Benefits/Class 100 Ratio		38.1%	38.7%	37.7%	40.7%	39.9%	42.1%	37.1%	38.3%	38.8%	39.4%	39.9%	40.6%
Pension/Class 100 Ratio		38.4%	34.0%	35.2%	34.4%	39.4%	44.4%	40.5%	40.8%	40.9%	40.3%	39.8%	39.5%
Pension Obligations/Class 100 Ratio		9.8%	19.6%	20.6%	9.6%	10.5%	10.7%	9.4%	9.2%	8.9%	8.6%	8.4%	8.1%
Other Department Operating and Maintenance Expenses Summary - Annual Increase													
100 Salaries & Wages		-1.48%	3.43%	0.90%	5.02%	-0.10%	10.21%	-9.54%	2.50%	3.00%	3.00%	3.00%	3.00%
1xx Benefits		-9.19%	5.14%	1.67%	17.66%	-2.11%	11.37%	-6.02%	6.12%	4.93%	4.81%	4.76%	4.77%
191 Pension		18.49%	-8.42%	7.88%	6.67%	14.16%	19.09%	-2.76%	3.66%	3.76%	1.83%	1.87%	2.39%
190 Pension Obligations		4.17%	107.78%	9.77%	-49.15%	9.23%	7.17%	-6.31%	0.43%	0.41%	0.36%	0.29%	0.00%
1xx (270) Benefits (270)		0.00%							5.67%	4.50%	4.44%	4.46%	4.77%
191 (270) Pension (270)		0.00%							3.22%	3.33%	1.47%	1.57%	2.39%
190 (270) Pension Obligations (270)		0.00%							0.00%	0.00%	0.00%	0.00%	0.00%
200 Services		18.48%	14.15%	6.43%	3.21%	-0.32%	15.65%	13.85%	3.12%	3.11%	3.11%	3.41%	3.19%
220 Power		0.00%											
221 Gas		0.00%											
300 Materials and Supplies		-13.81%	-1.84%	13.88%	10.31%	-17.66%	10.84%	21.04%	0.50%	0.50%	0.50%	0.50%	0.50%
307 Chemicals		0.00%											
400 Equipment		0.00%											
500 Indemnities		-43.40%	67.05%	18.59%	-36.35%	41.61%	27.78%	-33.24%	10.77%	0.00%	0.00%	0.00%	0.00%
800 Transfers		0.00%											
Total Other Department Operating and Maintenance Expenses Summary - An		1.26%	10.92%	5.89%	-0.80%	4.09%	14.27%	3.88%	3.97%	3.45%	2.82%	2.88%	3.04%

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water System Other Department O&M													
												Other Dept O&M - 4	
Division of Technology													
100	Salaries & Wages						\$ 3,427,452	\$ 3,719,679	\$ 3,812,671	\$ 3,927,051	\$ 4,044,863	\$ 4,166,209	\$ 4,291,195
200	Services						6,217,295	7,220,587	7,466,087	7,719,934	7,982,412	8,253,814	8,534,444
300	Materials and Supplies						856,398	904,660	909,184	913,729	918,298	922,890	927,504
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Division of Technology							\$ 10,501,145	\$ 11,844,926	\$ 12,187,942	\$ 12,560,714	\$ 12,945,573	\$ 13,342,913	\$ 13,753,143
Mayor's Office of Transportation & Utilities and Office of Sustainability													
100	Salaries & Wages						\$ 72,873	\$ 72,290	\$ 74,097	\$ 76,320	\$ 78,609	\$ 80,968	\$ 83,397
200	Services						10,440	10,800	11,167	11,547	11,939	12,345	12,765
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability							\$ 83,313	\$ 83,090	\$ 85,264	\$ 87,867	\$ 90,548	\$ 93,313	\$ 96,162
Philadelphia Water, Sewer and Stormwater Rate Board													
100	Salaries & Wages						\$ 1,368	\$ 43,200	\$ 44,280	\$ 45,608	\$ 46,977	\$ 48,386	\$ 49,838
200	Services						34,506	306,000	316,404	327,162	338,285	349,787	361,680
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board							\$ 35,874	\$ 349,200	\$ 360,684	\$ 372,770	\$ 385,262	\$ 398,173	\$ 411,518
Public Property													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						1,455,348	1,532,454	1,557,880	1,582,754	1,607,475	1,662,742	1,697,009
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Public Property							\$ 1,455,348	\$ 1,532,454	\$ 1,557,880	\$ 1,582,754	\$ 1,607,475	\$ 1,662,742	\$ 1,697,009
Fleet Management													
100	Salaries & Wages						\$ 1,053,294	\$ 952,197	\$ 976,002	\$ 1,005,282	\$ 1,035,441	\$ 1,066,504	\$ 1,098,499
200	Services						510,287	532,346	550,446	569,161	588,513	608,522	629,212
300	Materials and Supplies						1,228,446	1,459,382	1,466,679	1,474,012	1,481,382	1,488,789	1,496,233
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Fleet Management							\$ 2,792,027	\$ 2,943,925	\$ 2,993,127	\$ 3,048,455	\$ 3,105,336	\$ 3,163,815	\$ 3,223,944

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Finance													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx	Benefits						20,808,794	19,693,952	20,824,685	21,776,899	22,752,346	23,767,016	24,900,391
191	Pension						21,955,119	21,500,469	22,208,299	22,963,199	23,308,635	23,674,604	24,241,199
190	Pension Obligations						5,280,997	4,982,571	4,986,190	4,989,243	4,991,207	4,991,251	4,991,263
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						2,572,311	1,716,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987
800	Transfers						-	-	-	-	-	-	-
Subtotal City Finance							\$ 50,617,221	\$ 47,893,979	\$ 49,921,161	\$ 51,631,328	\$ 52,954,175	\$ 54,334,858	\$ 56,034,840
City Finance (270)													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx (270)	Benefits (270)						-	2,537,098	2,680,949	2,801,598	2,926,068	3,056,616	3,202,336
191 (270)	Pension (270)						-	2,658,142	2,743,734	2,835,100	2,876,776	2,921,942	2,991,873
190 (270)	Pension Obligations (270)						-	553,490	553,490	553,490	553,490	553,490	553,490
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal City Finance (270)							\$ -	\$ 5,748,730	\$ 5,978,173	\$ 6,190,188	\$ 6,356,334	\$ 6,532,048	\$ 6,747,699
Revenue													
100	Salaries & Wages						\$ 3,622,116	\$ 2,886,359	\$ 2,958,518	\$ 3,047,273	\$ 3,138,692	\$ 3,232,852	\$ 3,329,838
200	Services						1,656,214	1,683,991	1,741,246	1,800,449	1,861,664	1,924,961	1,990,409
300	Materials and Supplies						277,560	455,964	458,244	460,535	462,838	465,152	467,478
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						40	309	309	309	309	309	309
800	Transfers						-	-	-	-	-	-	-
Subtotal Revenue							\$ 5,555,930	\$ 5,026,623	\$ 5,158,317	\$ 5,308,566	\$ 5,463,503	\$ 5,623,274	\$ 5,788,034
Procurement													
100	Salaries & Wages						\$ 30,769	\$ 28,695	\$ 29,413	\$ 30,295	\$ 31,204	\$ 32,140	\$ 33,104
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Procurement							\$ 30,769	\$ 28,695	\$ 29,413	\$ 30,295	\$ 31,204	\$ 32,140	\$ 33,104
Law													
100	Salaries & Wages						\$ 876,697	\$ 781,170	\$ 800,700	\$ 824,721	\$ 849,462	\$ 874,946	\$ 901,195
200	Services						61,457	91,257	94,360	97,568	100,885	104,316	107,862
300	Materials and Supplies						13,494	4,880	4,904	4,929	4,953	4,978	5,003
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Law							\$ 951,648	\$ 877,307	\$ 899,964	\$ 927,218	\$ 955,300	\$ 984,240	\$ 1,014,060

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water System Operating and Maintenance Expenses Summary													
100	Salaries & Wages						\$ 9,084,569	\$ 8,483,590	\$ 8,695,681	\$ 8,956,550	\$ 9,225,248	\$ 9,502,005	\$ 9,787,066
1xx	Benefits						20,808,794	19,693,952	20,824,685	21,776,899	22,752,346	23,767,016	24,900,391
191	Pension						21,955,119	21,500,469	22,208,299	22,963,199	23,308,635	23,674,604	24,241,199
190	Pension Obligations						5,280,997	4,982,571	4,986,190	4,989,243	4,991,207	4,991,251	4,991,263
1xx (270)	Benefits (270)						-	2,537,098	2,680,949	2,801,598	2,926,068	3,056,616	3,202,336
191 (270)	Pension (270)						-	2,658,142	2,743,734	2,835,100	2,876,776	2,921,942	2,991,873
190 (270)	Pension Obligations (270)						-	553,490	553,490	553,490	553,490	553,490	553,490
200	Services						9,945,547	11,377,435	11,737,590	12,108,575	12,491,173	12,916,487	13,333,381
220	Power						-	-	-	-	-	-	-
221	Gas						-	-	-	-	-	-	-
300	Materials and Supplies						2,375,898	2,824,886	2,839,011	2,853,205	2,867,471	2,881,809	2,896,218
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						2,572,351	1,717,296	1,902,296	1,902,296	1,902,296	1,902,296	1,902,296
800	Transfers						-	-	-	-	-	-	-
Total Water System Operating and Maintenance Expenses Summary							\$ 72,023,275	\$ 76,328,929	\$ 79,171,925	\$ 81,740,155	\$ 83,894,710	\$ 86,167,516	\$ 88,799,513
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical										2022	2023
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
Wastewater System Other Department O&M												Other Dept O&M - 5	
Division of Technology													
100	Salaries & Wages						\$ 2,465,779	\$ 2,676,012	\$ 2,742,913	\$ 2,825,200	\$ 2,909,956	\$ 2,997,254	\$ 3,087,172
200	Services						6,387,895	7,418,716	7,670,953	7,931,765	8,201,445	8,480,294	8,768,624
300	Materials and Supplies						778,256	822,115	826,225	830,357	834,508	838,680	842,874
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						0	0	0	0	0	0	0
Subtotal Division of Technology							\$ 9,631,930	\$ 10,916,844	\$ 11,240,090	\$ 11,587,322	\$ 11,945,909	\$ 12,316,229	\$ 12,698,670
x													
Mayor's Office of Transportation & Utilities and Office of Sustainability													
100	Salaries & Wages						\$ 129,551	\$ 128,515	\$ 131,728	\$ 135,680	\$ 139,751	\$ 143,942	\$ 148,261
200	Services						18,560	19,200	19,853	20,528	21,226	21,948	22,694
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability							\$ 148,111	\$ 147,715	\$ 151,581	\$ 156,207	\$ 160,977	\$ 165,890	\$ 170,955
x													
Philadelphia Water, Sewer and Stormwater Rate Board													
100	Salaries & Wages						\$ 2,432	\$ 76,800	\$ 78,720	\$ 81,082	\$ 83,514	\$ 86,019	\$ 88,600
200	Services						61,345	544,000	562,496	581,621	601,396	621,843	642,986
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board							\$ 63,777	\$ 620,800	\$ 641,216	\$ 662,703	\$ 684,910	\$ 707,863	\$ 731,585
x													
Public Property													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services						2,587,285	2,724,363	2,769,565	2,813,784	2,857,733	2,955,985	3,016,905
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Public Property							\$ 2,587,285	\$ 2,724,363	\$ 2,769,565	\$ 2,813,784	\$ 2,857,733	\$ 2,955,985	\$ 3,016,905
x													
Fleet Management													
100	Salaries & Wages						\$ 1,872,522	\$ 1,692,795	\$ 1,735,115	\$ 1,787,168	\$ 1,840,783	\$ 1,896,006	\$ 1,952,887
200	Services						907,178	946,394	978,571	1,011,843	1,046,245	1,081,818	1,118,599
300	Materials and Supplies						2,183,905	2,594,457	2,607,429	2,620,467	2,633,569	2,646,737	2,659,971
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Fleet Management							\$ 4,963,605	\$ 5,233,646	\$ 5,321,115	\$ 5,419,478	\$ 5,520,597	\$ 5,624,561	\$ 5,731,456
x													

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Finance													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
1xx	Benefits						31,843,129	29,788,647	31,686,525	33,324,405	34,999,576	36,736,073	38,487,753
191	Pension						33,597,319	32,521,147	33,791,813	35,139,758	35,855,306	36,593,236	37,468,862
190	Pension Obligations						8,081,365	7,536,530	7,586,911	7,634,858	7,677,894	7,714,850	7,714,838
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						4,379,882	2,923,518	3,238,518	3,238,518	3,238,518	3,238,518	3,238,518
800	Transfers						-	-	-	-	-	-	-
Subtotal City Finance							\$ 77,901,695	\$ 72,769,841	\$ 76,303,766	\$ 79,337,539	\$ 81,771,294	\$ 84,282,677	\$ 86,909,971
City Finance (270)													
100	Salaries & Wages						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx (270)	Benefits (270)						-	2,978,332	3,147,201	3,288,832	3,434,949	3,588,202	3,759,264
191 (270)	Pension (270)						-	3,120,427	3,220,905	3,328,162	3,377,086	3,430,105	3,512,199
190 (270)	Pension Obligations (270)						-	649,749	649,749	649,749	649,749	649,749	649,749
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal City Finance (270)							\$ -	\$ 6,748,508	\$ 7,017,854	\$ 7,266,743	\$ 7,461,784	\$ 7,668,056	\$ 7,921,211
Revenue													
100	Salaries & Wages						\$ 7,222,543	\$ 5,755,434	\$ 5,899,320	\$ 6,076,300	\$ 6,258,588	\$ 6,446,346	\$ 6,639,736
200	Services						3,302,512	3,357,897	3,472,067	3,590,116	3,712,180	3,838,394	3,968,900
300	Materials and Supplies						553,458	909,199	913,744	918,313	922,905	927,519	932,157
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						80	617	617	617	617	617	617
800	Transfers						-	-	-	-	-	-	-
Subtotal Revenue							\$ 11,078,593	\$ 10,023,146	\$ 10,285,747	\$ 10,585,346	\$ 10,894,289	\$ 11,212,876	\$ 11,541,410
x													
Procurement													
100	Salaries & Wages						\$ 54,701	\$ 51,014	\$ 52,289	\$ 53,858	\$ 55,474	\$ 57,138	\$ 58,853
200	Services						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Procurement							\$ 54,701	\$ 51,014	\$ 52,289	\$ 53,858	\$ 55,474	\$ 57,138	\$ 58,853
x													
Law													
100	Salaries & Wages						\$ 1,492,753	\$ 1,330,102	\$ 1,363,353	\$ 1,404,254	\$ 1,446,382	\$ 1,489,773	\$ 1,534,466
200	Services						104,642	155,384	160,667	166,130	171,778	177,618	183,658
300	Materials and Supplies						22,975	8,309	8,351	8,392	8,435	8,477	8,519
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Subtotal Law							\$ 1,620,370	\$ 1,493,795	\$ 1,532,371	\$ 1,578,776	\$ 1,626,595	\$ 1,675,868	\$ 1,726,643
x													

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Wastewater System Other Department O&M Summary													
100	Salaries & Wages						\$ 13,240,281	\$ 11,710,672	\$ 12,003,438	\$ 12,363,542	\$ 12,734,447	\$ 13,116,481	\$ 13,509,974
1xx	Benefits						31,843,129	29,788,647	31,686,525	33,324,405	34,999,576	36,736,073	38,487,753
191	Pension						33,597,319	32,521,147	33,791,813	35,139,758	35,855,306	36,593,236	37,468,862
190	Pension Obligations						8,081,365	7,536,530	7,586,911	7,634,858	7,677,894	7,714,850	7,714,838
1xx (270)	Benefits (270)						-	2,978,332	3,147,201	3,288,832	3,434,949	3,588,202	3,759,264
191 (270)	Pension (270)						-	3,120,427	3,220,905	3,328,162	3,377,086	3,430,105	3,512,199
190 (270)	Pension Obligations (270)						-	649,749	649,749	649,749	649,749	649,749	649,749
200	Services						13,369,417	15,165,955	15,634,171	16,115,786	16,612,004	17,177,900	17,722,365
220	Power						-	-	-	-	-	-	-
221	Gas						-	-	-	-	-	-	-
300	Materials and Supplies						3,538,594	4,334,080	4,355,749	4,377,529	4,399,417	4,421,413	4,443,520
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						4,379,962	2,924,134	3,239,134	3,239,134	3,239,134	3,239,134	3,239,134
800	Transfers						-	-	-	-	-	-	-
Total Wastewater System Other Department O&M Summary							\$ 108,050,067	\$ 110,729,672	\$ 115,315,595	\$ 119,461,755	\$ 122,979,562	\$ 126,667,144	\$ 130,507,658
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CHECK - Water & Sewer							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
PWD Projected Other Department O&M Budget													
												Other Dept O&M - 6	
Division of Technology													
100	Salaries & Wages	Labor					\$ 6,330,207	\$ 7,256,281	\$ 7,437,688	\$ 7,660,819	\$ 7,890,643	\$ 8,127,363	\$ 8,371,183
200	Services	Other 200					16,050,511	19,043,874	19,691,366	20,360,872	21,053,142	21,768,949	22,509,093
300	Materials and Supplies	Other 300					2,045,628	2,700,550	2,714,053	2,727,623	2,741,261	2,754,967	2,768,742
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Division of Technology							\$ 24,426,346	\$ 29,000,705	\$ 29,843,106	\$ 30,749,314	\$ 31,685,046	\$ 32,651,279	\$ 33,649,019
Mayor's Office of Transportation & Utilities and Office of Sustainability													
100	Salaries & Wages	Labor					\$ 322,424	\$ 202,424	\$ 207,485	\$ 213,709	\$ 220,120	\$ 226,724	\$ 233,526
200	Services	Other 200					880,000	30,000	31,020	32,075	33,165	34,293	35,459
300	Materials and Supplies	Other 300					-	-	-	-	-	-	-
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability							\$ 1,202,424	\$ 232,424	\$ 238,505	\$ 245,784	\$ 253,286	\$ 261,017	\$ 268,985
Philadelphia Water, Sewer and Stormwater Rate Board													
100	Salaries & Wages	Labor					\$ 120,000	\$ 120,000	\$ 123,000	\$ 126,690	\$ 130,491	\$ 134,405	\$ 138,438
200	Services	Other 200					850,000	850,000	878,900	908,783	939,681	971,630	1,004,666
300	Materials and Supplies	Other 300					-	-	-	-	-	-	-
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board							\$ 970,000	\$ 970,000	\$ 1,001,900	\$ 1,035,473	\$ 1,070,172	\$ 1,106,036	\$ 1,143,103
Public Property													
100	Salaries & Wages	Labor					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	Services	Property Leases					4,042,633	4,256,817	4,327,445	4,396,538	4,465,208	4,618,727	4,713,914
300	Materials and Supplies	Other 300					-	-	-	-	-	-	-
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Public Property							\$ 4,042,633	\$ 4,256,817	\$ 4,327,445	\$ 4,396,538	\$ 4,465,208	\$ 4,618,727	\$ 4,713,914
Fleet Management													
100	Salaries & Wages	Labor					\$ 3,062,196	\$ 3,062,196	\$ 3,138,751	\$ 3,232,913	\$ 3,329,901	\$ 3,429,798	\$ 3,532,692
200	Services	Other 200					1,489,000	1,489,000	1,539,626	1,591,973	1,646,100	1,702,068	1,759,938
300	Materials and Supplies	Other 300					4,274,640	4,274,640	4,296,013	4,317,493	4,339,081	4,360,776	4,382,580
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Fleet Management							\$ 8,825,836	\$ 8,825,836	\$ 8,974,390	\$ 9,142,380	\$ 9,315,082	\$ 9,492,642	\$ 9,675,210

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
City Finance													
100	Salaries & Wages	Labor											
1xx	Benefits	Other Benefits					\$ 53,765,209	\$ 55,005,283	\$ 58,347,024	\$ 61,199,744	\$ 64,121,305	\$ 67,156,646	\$ 70,358,899
191	Pension	Pension					\$ 52,384,383	\$ 54,652,000	\$ 56,650,794	\$ 58,775,307	\$ 59,846,175	\$ 60,960,785	\$ 62,419,590
190	Pension Obligations	Pension Obligations					\$ 12,093,775	\$ 12,475,000	\$ 12,529,000	\$ 12,580,000	\$ 12,625,000	\$ 12,662,000	\$ 12,662,000
200	Services	Other 200					-	-	-	-	-	-	-
300	Materials and Supplies	Other 300					-	-	-	-	-	-	-
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					\$ 6,500,000	\$ 6,500,000	\$ 7,000,000	\$ 7,000,000	\$ 7,000,000	\$ 7,000,000	\$ 7,000,000
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal City Finance							\$ 124,743,367	\$ 128,632,283	\$ 134,526,819	\$ 139,555,052	\$ 143,592,480	\$ 147,779,432	\$ 152,440,489
City Finance (270)													
100	Salaries & Wages	Labor					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx (270)	Benefits (270)	Other Benefits					-	\$ 6,131,000	\$ 6,478,621	\$ 6,770,175	\$ 7,070,962	\$ 7,386,437	\$ 7,738,574
191 (270)	Pension (270)	Pension					-	\$ 5,846,000	\$ 6,034,241	\$ 6,235,181	\$ 6,326,839	\$ 6,426,170	\$ 6,579,969
190 (270)	Pension Obligations (270)	Pension Obligations					-	\$ 1,199,000	\$ 1,199,000	\$ 1,199,000	\$ 1,199,000	\$ 1,199,000	\$ 1,199,000
200	Services	Other 200					-	-	-	-	-	-	-
300	Materials and Supplies	Other 300					-	-	-	-	-	-	-
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal City Finance (270)							\$ -	\$ 13,176,000	\$ 13,711,862	\$ 14,204,356	\$ 14,596,800	\$ 15,011,607	\$ 15,517,543
Revenue													
100	Salaries & Wages	Labor					\$ 12,287,592	\$ 9,759,200	\$ 10,003,180	\$ 10,303,275	\$ 10,612,374	\$ 10,930,745	\$ 11,258,667
200	Services	Other 200					\$ 5,072,174	\$ 5,048,100	\$ 5,219,735	\$ 5,397,206	\$ 5,580,711	\$ 5,770,456	\$ 5,966,651
300	Materials and Supplies	Other 300					\$ 1,434,199	\$ 1,428,400	\$ 1,435,542	\$ 1,442,720	\$ 1,449,933	\$ 1,457,183	\$ 1,464,469
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Revenue							\$ 18,798,965	\$ 16,240,700	\$ 16,663,457	\$ 17,148,202	\$ 17,648,018	\$ 18,163,383	\$ 18,694,787
Procurement													
100	Salaries & Wages	Labor					\$ 85,470	\$ 89,261	\$ 91,493	\$ 94,237	\$ 97,064	\$ 99,976	\$ 102,976
200	Services	Other 200					-	-	-	-	-	-	-
300	Materials and Supplies	Other 300					-	-	-	-	-	-	-
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Procurement							\$ 85,470	\$ 89,261	\$ 91,493	\$ 94,237	\$ 97,064	\$ 99,976	\$ 102,976
Law													
100	Salaries & Wages	Labor					\$ 2,509,294	\$ 2,506,206	\$ 2,568,861	\$ 2,645,927	\$ 2,725,305	\$ 2,807,064	\$ 2,891,276
200	Services	Other 200					\$ 691,614	\$ 691,614	\$ 715,129	\$ 739,443	\$ 764,584	\$ 790,580	\$ 817,460
300	Materials and Supplies	Other 300					\$ 43,010	\$ 43,010	\$ 43,225	\$ 43,441	\$ 43,658	\$ 43,877	\$ 44,096
400	Equipment	Other 400					-	-	-	-	-	-	-
500	Indemnities	Constant					-	-	-	-	-	-	-
800	Transfers	Transfers					-	-	-	-	-	-	-
Subtotal Law							\$ 3,243,918	\$ 3,240,830	\$ 3,327,215	\$ 3,428,811	\$ 3,533,548	\$ 3,641,521	\$ 3,752,832

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Other Department Operating and Maintenance Expenses Summary													
100	Salaries & Wages						\$ 24,717,183	\$ 22,995,568	\$ 23,570,457	\$ 24,277,571	\$ 25,005,898	\$ 25,756,075	\$ 26,528,757
1xx	Benefits						53,765,209	55,005,283	58,347,024	61,199,744	64,121,305	67,156,646	70,358,899
191	Pension						52,384,383	54,652,000	56,650,794	58,775,307	59,846,175	60,960,785	62,419,590
190	Pension Obligations						12,093,775	12,475,000	12,529,000	12,580,000	12,625,000	12,662,000	12,662,000
1xx (270)	Benefits (270)						-	6,131,000	6,478,621	6,770,175	7,070,962	7,386,437	7,738,574
191 (270)	Pension (270)						-	5,846,000	6,034,241	6,235,181	6,326,839	6,426,170	6,579,969
190 (270)	Pension Obligations (270)						-	1,199,000	1,199,000	1,199,000	1,199,000	1,199,000	1,199,000
200	Services						29,075,932	31,409,405	32,403,221	33,426,891	34,482,593	35,656,703	36,807,181
220	Power						-	-	-	-	-	-	-
221	Gas						-	-	-	-	-	-	-
300	Materials and Supplies						7,797,477	8,446,600	8,488,833	8,531,277	8,573,934	8,616,803	8,659,887
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Indemnities						6,505,000	6,505,000	7,005,000	7,005,000	7,005,000	7,005,000	7,005,000
800	Transfers						-	-	-	-	-	-	-
Total Other Department Operating and Maintenance Expenses Summary							\$ 186,338,959	\$ 204,664,856	\$ 212,706,192	\$ 220,000,146	\$ 226,256,704	\$ 232,825,620	\$ 239,958,857
CHECK							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Actual/Budget							96.6%	91.4%	91.4%	91.5%	91.4%	91.4%	91.4%
Class 100 - Direct & Other Departments							\$ 135,082,349	\$ 139,465,862	\$ 142,952,508	\$ 147,824,769	\$ 152,772,963	\$ 157,796,131	\$ 162,529,735
Pension & Benefits/Class 100 Ratio (Excludes 270 Benefits)							87.5%	87.6%	89.2%	89.7%	89.4%	89.2%	89.5%

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total PWD Projected O&M (Direct and Other Departments)												Other Dept O&M - 7	
PWD Operating and Maintenance Expenses Summary													
100	Salaries & Wages	\$ 100,874,990	\$ 104,392,548	\$ 108,902,414	\$ 118,718,437	\$ 118,414,751	\$ 125,010,184	\$ 133,332,567	\$ 137,249,681	\$ 141,950,857	\$ 146,722,833	\$ 151,564,498	\$ 156,111,153
1xx	Benefits	38,395,202	40,369,391	41,044,344	48,293,131	47,276,002	52,651,923	49,482,599	52,511,210	55,101,304	57,751,922	60,503,089	63,388,144
191	Pension	38,770,167	35,507,147	38,305,052	40,861,335	46,646,526	55,552,438	54,021,616	56,000,112	58,102,957	59,163,941	60,267,840	61,710,061
190	Pension Obligations	9,843,048	20,452,252	22,450,403	11,415,451	12,468,686	13,362,362	12,519,101	12,573,101	12,624,101	12,669,101	12,706,101	12,706,101
1xx (270)	Benefits (270)	-	-	-	-	-	-	5,515,430	5,828,150	6,090,430	6,361,017	6,644,818	6,961,600
191 (270)	Pension (270)	-	-	-	-	-	-	5,778,569	5,964,639	6,163,262	6,253,862	6,352,047	6,504,072
190 (270)	Pension Obligations (270)	-	-	-	-	-	-	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239	1,203,239
200	Services	95,599,887	101,600,615	103,657,686	111,372,311	110,612,683	131,242,941	122,909,151	127,013,958	131,254,393	135,636,230	140,249,564	144,956,199
220	Power	24,841,360	24,375,674	21,440,579	20,427,534	20,071,556	18,223,847	18,384,858	18,384,858	18,384,858	18,936,404	19,504,496	20,089,631
221	Gas	3,545,811	3,458,000	3,561,029	4,190,988	4,013,404	3,176,528	4,735,091	4,924,494	4,924,494	5,072,229	5,224,396	5,381,128
2xx	SMIP/GARP	5,025,000	4,925,776	5,020,143	11,598,134	15,000,000	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
300	Materials and Supplies	23,282,558	23,872,227	22,546,905	23,180,707	22,505,723	25,905,043	25,872,642	26,002,005	26,132,015	26,262,675	26,393,988	26,525,958
307	Chemicals	20,239,205	22,602,203	24,446,114	22,324,969	21,075,520	18,596,601	20,527,623	21,902,973	22,735,286	22,962,639	23,192,265	23,424,188
400	Equipment	2,082,059	1,804,839	2,419,659	1,849,016	1,992,145	2,120,160	2,263,012	2,292,431	2,322,232	2,352,421	2,383,003	2,413,982
500	Indemnities	3,047,230	5,090,380	6,036,579	3,842,040	5,440,820	7,352,313	5,141,430	5,641,430	5,641,430	5,641,430	5,641,430	5,641,430
800	Transfers	9,074,729	10,792,914	7,714,419	6,244,621	8,100,186	12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875
Total PWD Operating and Maintenance Expenses Summary		\$ 374,621,246	\$ 399,243,964	\$ 407,545,325	\$ 424,318,674	\$ 433,618,002	\$ 480,291,404	\$ 488,117,740	\$ 509,083,864	\$ 524,387,233	\$ 538,915,226	\$ 553,929,190	\$ 569,292,761
CHECK		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefit to Salary Ratios (Excludes 270 Benefits)													
Total Pension & Benefits/Class 100 Ratio		86.3%	92.3%	93.5%	84.7%	89.8%	97.2%	87.0%	88.2%	88.6%	88.3%	88.1%	88.3%
Benefits / Class 100 Ratio		38.1%	38.7%	37.7%	40.7%	39.9%	42.1%	37.1%	38.3%	38.8%	39.4%	39.9%	40.6%
Pension / Class 100 Ratio		38.4%	34.0%	35.2%	34.4%	39.4%	44.4%	40.5%	40.8%	40.9%	40.3%	39.8%	39.5%
Pension Obligation / Class 100 Ratio		9.8%	19.6%	20.6%	9.6%	10.5%	10.7%	9.4%	9.2%	8.9%	8.6%	8.4%	8.1%
PWD Operating and Maintenance Expenses Summary - Annual Increase													
100	Salaries & Wages		3.49%	4.32%	9.01%	-0.26%	5.57%	6.66%	2.94%	3.43%	3.36%	3.30%	3.00%
1xx	Benefits		5.14%	1.67%	17.66%	-2.11%	11.37%	-6.02%	6.12%	4.93%	4.81%	4.76%	4.77%
191	Pension		-8.42%	7.88%	6.67%	14.16%	19.09%	-2.76%	3.66%	3.76%	1.83%	1.87%	2.39%
190	Pension Obligations		107.78%	9.77%	-49.15%	9.23%	7.17%	-6.31%	0.43%	0.41%	0.36%	0.29%	0.00%
1xx (270)	Benefits (270)								5.67%	4.50%	4.44%	4.46%	4.77%
191 (270)	Pension (270)								3.22%	3.33%	1.47%	1.57%	2.39%
190 (270)	Pension Obligations (270)								0.00%	0.00%	0.00%	0.00%	0.00%
200	Services		6.28%	2.02%	7.44%	-0.68%	18.65%	-6.35%	3.34%	3.34%	3.34%	3.40%	3.36%
220	Power		-1.87%	-12.04%	-4.72%	-1.74%	-9.21%	0.88%	0.00%	0.00%	3.00%	3.00%	3.00%
221	Gas		-2.48%	2.98%	17.69%	-4.24%		49.06%	4.00%	0.00%	3.00%	3.00%	3.00%
2xx	SMIP/GARP		-1.97%	1.92%	131.03%	29.33%	0.00%	33.33%	25.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies		2.53%	-5.55%	2.81%	-2.91%	15.10%	-0.13%	0.50%	0.50%	0.50%	0.50%	0.50%
307	Chemicals		11.68%	8.16%	-8.68%	-5.60%	-11.76%	10.38%	6.70%	3.80%	1.00%	1.00%	1.00%
400	Equipment		-13.31%	34.07%	-23.58%	7.74%	6.43%	6.74%	1.30%	1.30%	1.30%	1.30%	1.30%
500	Indemnities		67.05%	18.59%	-36.35%	41.61%	35.13%	-30.07%	9.72%	0.00%	0.00%	0.00%	0.00%
800	Transfers		18.93%	-28.52%	-19.05%	29.71%	49.34%	-46.84%	2.50%	2.50%	2.50%	2.50%	2.50%
Total PWD Operating and Maintenance Expenses Summary - Annual Increase			6.57%	2.08%	4.12%	2.19%	10.76%	1.63%	4.30%	3.01%	2.77%	2.79%	2.77%

Cost Center/Expense Class	Escalation Reference	Historical											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
PWD Operating and Maintenance Expenses Summary - 2 Year Average Increase													
100	Salaries & Wages			3.90%	6.64%	4.28%	2.62%	6.11%	4.78%	3.18%	3.39%	3.33%	3.15%
1xx	Benefits			3.39%	9.37%	7.32%	4.42%	2.31%	-0.13%	5.52%	4.87%	4.79%	4.77%
191	Pension			-0.60%	7.27%	10.35%	16.60%	7.62%	0.40%	3.71%	2.79%	1.85%	2.13%
190	Pension Obligations			51.02%	-25.29%	-25.48%	8.19%	0.20%	-3.00%	0.42%	0.38%	0.32%	0.15%
1xx (270)	Benefits (270)									5.08%	4.47%	4.45%	4.61%
191 (270)	Pension (270)									3.27%	2.40%	1.52%	1.98%
190 (270)	Pension Obligations (270)									0.00%	0.00%	0.00%	0.00%
200	Services			4.13%	4.70%	3.30%	8.55%	5.41%	-1.62%	3.34%	3.34%	3.37%	3.38%
220	Power			-7.10%	-8.46%	-3.25%	-5.55%	-4.29%	0.44%	0.00%	1.49%	3.00%	3.00%
221	Gas			0.21%	10.09%	6.16%	-12.94%	8.62%	24.51%	1.98%	1.49%	3.00%	3.00%
2xx	SMIP/GARP			-0.05%	53.45%	72.86%	13.72%	15.47%	29.10%	11.80%	0.00%	0.00%	0.00%
300	Materials and Supplies			-1.59%	-1.46%	-0.09%	5.71%	7.22%	0.19%	0.50%	0.50%	0.50%	0.50%
307	Chemicals			9.90%	-0.62%	-7.15%	-8.73%	-1.31%	8.53%	5.24%	2.39%	1.00%	1.00%
400	Equipment			7.80%	1.22%	-9.26%	7.08%	6.58%	3.98%	1.30%	1.30%	1.30%	1.30%
500	Indemnities			40.75%	-13.12%	-5.06%	38.33%	-2.79%	-12.40%	4.75%	0.00%	0.00%	0.00%
800	Transfers			-7.80%	-23.94%	2.47%	39.18%	-10.90%	-26.18%	2.50%	2.50%	2.50%	2.50%
Total PWD Operating and Maintenance Expenses Summary - 2 Year Average Increase				4.30%	3.09%	3.15%	6.39%	6.10%	2.95%	3.65%	2.89%	2.78%	2.78%

FINPLAN17.XLS

O&M ADJUSTMENTS

Index	Description	Table
O&M Adjustments		
O&M Adjustments Worksheet		
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O&M Adjustments - 3	O&M Adj 3 - Direct O&M Adjustments	
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Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Direct O&M							
O&M Adj 1	Additional SMIP Costs						O&M Adjustments - 1
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP		5,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 1 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	5,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 1 Summary	\$ -	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 2 xxxxxxxxxx	O&M Adjustments - 2						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers		-					
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 2 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 2 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 3 Additional GSI Maintenance Staffing	O&M Adjustments - 3						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages			\$ 445,000	\$ 899,000	\$ 1,366,000	\$ 1,847,000	\$ 1,902,000
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ 445,000	\$ 899,000	\$ 1,366,000	\$ 1,847,000	\$ 1,902,000
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 3 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ 445,000	\$ 899,000	\$ 1,366,000	\$ 1,847,000	\$ 1,902,000
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 3 Summary	\$ -	\$ -	\$ 445,000	\$ 899,000	\$ 1,366,000	\$ 1,847,000	\$ 1,902,000

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 4 xxxxxxxxxxxx	O&M Adjustments - 4						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services	-	-	-	-	-	-	-
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 4 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 4 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 5							O&M Adjustments - 5
Indemnities							
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 5 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 5 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 6 Additional Staffing	O&M Adjustments - 6						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages			\$ 138,800	\$ 286,000	\$ 368,000	\$ 379,000	\$ 390,500
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ 138,800	\$ 286,000	\$ 368,000	\$ 379,000	\$ 390,500

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 6 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ 138,800	\$ 286,000	\$ 368,000	\$ 379,000	\$ 390,500
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 6 Summary	\$ -	\$ -	\$ 138,800	\$ 286,000	\$ 368,000	\$ 379,000	\$ 390,500

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 7 xxxxxxxxxxxx	O&M Adjustments - 7						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 7 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 7 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 8 xxxxxxxxxxxx	O&M Adjustments - 8						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages			\$ -	\$ -	\$ -	\$ -	\$ -
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 8 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 8 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 9 xxxxxxxxxxxx	O&M Adjustments - 9						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 9 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 9 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 10 xxxxxxxxxxxx	O&M Adjustments - 10						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 10 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 10 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 11 xxxxxxxxxxxx	O&M Adjustments - 11						
Human Resources and Administration							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Human Resources and Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance							
100 Salaries & Wages							
200 Services							
2xx SMIP/GARP							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning and Engineering							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning and Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Operations							
100 Salaries & Wages							
200 Services							
220 Power							
221 Gas							
300 Materials and Supplies							
307 Chemicals							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Planning & Environmental Services							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Planning & Environmental Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Affairs							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Affairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWD O&M Adjustment 11 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
221 Gas	-	-	-	-	-	-	-
2xx SMIP/GARP	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total PWD O&M Adjustment 11 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Adjustments	\$ -	\$ 5,000,000	\$ 10,583,800	\$ 11,185,000	\$ 11,734,000	\$ 12,226,000	\$ 12,292,500

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M							
O&M Adj 1							O&M Adjustments - 12
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 11 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 11 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 2 xxxxxxxxxx	O&M Adjustments - 13						
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 2 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 2 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 3 Additional GSI Maintenance Staffing	O&M Adjustments - 14						
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits			170,000	349,000	538,000	737,000	772,000
191 Pension			182,000	368,000	551,000	734,000	752,000
190 Pension Obligations			41,000	80,000	118,000	155,000	155,000
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ 393,000	\$ 797,000	\$ 1,207,000	\$ 1,626,000	\$ 1,679,000
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Department O&M Adjustment 3 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	170,000	349,000	538,000	737,000	772,000
191 Pension	-	-	182,000	368,000	551,000	734,000	752,000
190 Pension Obligations	-	-	41,000	80,000	118,000	155,000	155,000
1xx (270) Services	-	-	-	-	-	-	-
191 (270) Power	-	-	-	-	-	-	-
190 (270) Materials and Supplies	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 3 Summary	\$ -	\$ -	\$ 393,000	\$ 797,000	\$ 1,207,000	\$ 1,626,000	\$ 1,679,000

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 4 xxxxxxxxxx	O&M Adjustments - 15						
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 4 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 4 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 5							O&M Adjustments - 16
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities			\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Department O&M Adjustment 5 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	500,000	500,000	500,000	500,000	500,000
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 5 Summary	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 6 Additional Staffing	O&M Adjustments - 17						
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits			53,000	111,000	145,000	151,000	159,000
191 Pension			57,000	117,000	148,000	151,000	154,000
190 Pension Obligations			13,000	25,000	32,000	32,000	32,000
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ 123,000	\$ 253,000	\$ 325,000	\$ 334,000	\$ 345,000
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 6 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	53,000	111,000	145,000	151,000	159,000
191 Pension	-	-	57,000	117,000	148,000	151,000	154,000
190 Pension Obligations	-	-	13,000	25,000	32,000	32,000	32,000
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 6 Summary	\$ -	\$ -	\$ 123,000	\$ 253,000	\$ 325,000	\$ 334,000	\$ 345,000

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 7 xxxxxxxxxx							O&M Adjustments - 18
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 7 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 7 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 8 xxxxxxxxxx	O&M Adjustments - 19						
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainabil	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits			-	-	-	-	-
191 Pension			-	-	-	-	-
190 Pension Obligations			-	-	-	-	-
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 8 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 8 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 9 xxxxxxxxxx	O&M Adjustments - 20						
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 9 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 9 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 10	xxxxxxxxxx						O&M Adjustments - 21
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainabil	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 10 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits	-	-	-	-	-	-	-
191 (270) Pension	-	-	-	-	-	-	-
190 (270) Pension Obligations	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 10 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
O&M Adj 11 xxxxxxxxxxxx							O&M Adjustments - 22
Division of Technology							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Division of Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mayor's Office of Transportation & Utilities and Office of Sustainability							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Mayor's Office of Transportation & Utilities and Office of Sustainability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Philadelphia Water, Sewer and Stormwater Rate Board							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Philadelphia Water, Sewer and Stormwater Rate Board	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Public Property							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Public Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Management							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Fleet Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
City Finance							
100 Salaries & Wages							
1xx Benefits							
191 Pension							
190 Pension Obligations							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City Finance (270)							
100 Salaries & Wages							
1xx (270) Benefits (270)							
191 (270) Pension (270)							
190 (270) Pension Obligations (270)							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal City Finance (270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Procurement							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Procurement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Law							
100 Salaries & Wages							
200 Services							
300 Materials and Supplies							
400 Equipment							
500 Indemnities							
800 Transfers							
Subtotal Law	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cost Center/Expense Class	2017	2018	2019	2020	2021	2022	2023
Other Department O&M Adjustment 11 Summary							
100 Salaries & Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1xx Benefits	-	-	-	-	-	-	-
191 Pension	-	-	-	-	-	-	-
190 Pension Obligations	-	-	-	-	-	-	-
1xx (270) Benefits (270)	-	-	-	-	-	-	-
191 (270) Pension (270)	-	-	-	-	-	-	-
190 (270) Pension Obligations (270)	-	-	-	-	-	-	-
200 Services	-	-	-	-	-	-	-
220 Power	-	-	-	-	-	-	-
300 Materials and Supplies	-	-	-	-	-	-	-
307 Chemicals	-	-	-	-	-	-	-
400 Equipment	-	-	-	-	-	-	-
500 Indemnities	-	-	-	-	-	-	-
800 Transfers	-	-	-	-	-	-	-
Total Other Department O&M Adjustment 11 Summary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Adjustments	\$ -	\$ -	\$ 1,016,000	\$ 1,550,000	\$ 2,032,000	\$ 2,460,000	\$ 2,524,000

FINPLAN17.XLS

CAPITAL

Index	Description	Table
Capital Projects - Scen 4 Capital Projects Worksheet (Scenario 4)		
Capital Projects - Scen 4 - 1A	Water Capital Projects - Uninflated	TABLE W-3
Capital Projects - Scen 4 - 1B	Water Capital Projects - Inflated	TABLE W-3
Capital Projects - Scen 4 - 2A	Wastewater Capital Projects - Uninflated	TABLE WW-3
Capital Projects - Scen 4 - 2B	Wastewater Capital Projects - Inflated	TABLE WW-3
Capital Projects - Scen 4 - 3A	Combined System - Uninflated	
Capital Projects - Scen 4 - 3B	Combined System - Inflated	

Project	CIP								
	Inflation	2017	2018	2019	2020	2021	2022	2023	
Water Capital Projects		Capital Projects - Scen 4 - 1A							
Engineering and Administration									
	Low	\$ 15,789,500	\$ 16,421,080	\$ 16,913,740	\$ 17,421,120	\$ 17,943,680	\$ 18,481,880	\$ 19,036,640	
	Medium	-	-	-	-	-	-	-	
Subtotal Engineering and Administration		\$ 15,789,500	\$ 16,421,080	\$ 16,913,740	\$ 17,421,120	\$ 17,943,680	\$ 18,481,880	\$ 19,036,640	
Water Treatment Plant									
	Medium	\$ 43,120,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	
	Medium	-	-	-	-	-	-	-	
Subtotal Water Treatment Plant		\$ 43,120,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	\$ 44,000,000	
Pumping Station									
	Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Medium	-	-	-	-	-	-	-	
Subtotal Pumping Station		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Water Mains									
	Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Medium	-	-	-	-	-	-	-	
Subtotal Water Mains		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Filtered Water Storage									
	Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Medium	-	-	-	-	-	-	-	
Subtotal Filtered Water Storage		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Load Control Center Expansion									
	Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Medium	-	-	-	-	-	-	-	
Subtotal Load Control Center Expansion		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Distribution System									
	Medium	\$ 46,060,000	\$ 50,060,000	\$ 52,060,000	\$ 54,060,000	\$ 56,060,000	\$ 58,060,000	\$ 60,060,000	
	Medium	-	-	-	-	-	-	-	
Subtotal Distribution System		\$ 46,060,000	\$ 50,060,000	\$ 52,060,000	\$ 54,060,000	\$ 56,060,000	\$ 58,060,000	\$ 60,060,000	

Project	CIP		2017	2018	2019	2020	2021	2022	2023		
	Inflation										
Large Meter Replacement	Medium	\$	5,000,000	\$	5,000,000	\$	5,000,000	\$	5,000,000	\$	5,000,000
	Medium		-		20,000,000		20,000,000		-		-
Subtotal Large Meter Replacement		\$	5,000,000	\$	25,000,000	\$	25,000,000	\$	5,000,000	\$	5,000,000
Vehicles	Medium	\$	4,000,000	\$	7,500,000	\$	7,500,000	\$	7,500,000	\$	7,500,000
	Medium		-		-		-		-		-
Subtotal Vehicles		\$	4,000,000	\$	7,500,000	\$	7,500,000	\$	7,500,000	\$	7,500,000
Other	Medium	\$	-	\$	-	\$	-	\$	-	\$	-
	Medium		-		-		-		-		-
Subtotal Other		\$	-	\$	-	\$	-	\$	-	\$	-
Total Water Capital Projects		\$	113,969,500	\$	142,981,080	\$	145,473,740	\$	147,981,120	\$	130,503,680
									133,041,880		135,596,640

Project	CIP Inflation	2017	2018	2019	2020	2021	2022	2023
Wastewater Capital Projects		Capital Projects - Scen 4 - 2A						
Engineering and Administration								
	Low	\$ 18,535,500	\$ 19,276,920	\$ 19,855,260	\$ 20,450,880	\$ 21,064,320	\$ 21,696,120	\$ 22,347,360
	Medium	-	-	-	-	-	-	-
Subtotal Engineering and Administration		\$ 18,535,500	\$ 19,276,920	\$ 19,855,260	\$ 20,450,880	\$ 21,064,320	\$ 21,696,120	\$ 22,347,360
Water Pollution Control Plant Improvements								
	Medium	\$ 54,880,000	\$ 56,000,000	\$ 56,000,000	\$ 56,000,000	\$ 56,000,000	\$ 56,000,000	\$ 56,000,000
	Medium	12,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
Subtotal Water Pollution Control Plant Improvements		\$ 66,880,000	\$ 76,000,000	\$ 76,000,000	\$ 76,000,000	\$ 76,000,000	\$ 76,000,000	\$ 76,000,000
Storm Flood Relief								
	Medium	\$ 15,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000
	Medium	-	-	-	-	-	-	-
Subtotal Storm Flood Relief		\$ 15,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000
Reconstruction of Old Sewers								
Sewer Reconstruction	Medium	\$ 30,660,000	\$ 41,560,000	\$ 41,560,000	\$ 41,560,000	\$ 41,560,000	\$ 41,560,000	\$ 41,560,000
Interceptor Rehab	Medium	4,340,000	4,340,000	4,340,000	4,340,000	4,600,000	-	-
CSO System Improvements	Medium		5,000,000	5,000,000	5,000,000	10,000,000	10,000,000	10,000,000
Subtotal Reconstruction of Old Sewers		\$ 35,000,000	\$ 50,900,000	\$ 50,900,000	\$ 50,900,000	\$ 56,160,000	\$ 51,560,000	\$ 51,560,000
Green Infrastructure								
Stream Restoration	Medium	\$ 10,000,000	\$ -	\$ -	\$ -	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
	Medium	7,000,000	-	-	-	-	17,390,000	17,390,000
Green Infrastructure	Medium	31,244,000	47,000,000	47,000,000	47,000,000	47,000,000	50,000,000	50,000,000
Subtotal Green Infrastructure		\$ 48,244,000	\$ 47,000,000	\$ 47,000,000	\$ 47,000,000	\$ 57,000,000	\$ 77,390,000	\$ 77,390,000
Vehicles								
	Medium	\$ 4,000,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000
	Medium	-	-	-	-	-	-	-
Subtotal Vehicles		\$ 4,000,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000	\$ 7,500,000

Project	CIP Inflation	2017	2018	2019	2020	2021	2022	2023
Other	Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Medium	-	-	-	-	-	-	-
Subtotal Other		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consent Decree/Wet Weather Plan Projects	Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Medium	-	-	-	-	-	-	-
Subtotal Consent Decree/Wet Weather Plan Projects		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Wastewater Capital Projects		\$ 187,659,500	\$ 210,676,920	\$ 211,255,260	\$ 211,850,880	\$ 232,724,320	\$ 249,146,120	\$ 249,797,360

Project	CIP Inflation	2017	2018	2019	2020	2021	2022	2023
Combined System		Capital Projects - Scen 4 - 3A						
Total		\$ 301,629,000	\$ 353,658,000	\$ 356,729,000	\$ 359,832,000	\$ 363,228,000	\$ 382,188,000	\$ 385,394,000
Total Net Funding Requirement		\$ 250,000,000	\$ 318,292,000	\$ 328,255,000	\$ 338,518,000	\$ 349,342,000	\$ 375,924,000	\$ 387,540,000
Estimated Monthly Spending		\$ 20,833,333	\$ 26,524,333	\$ 27,354,583	\$ 28,209,833	\$ 29,111,833	\$ 31,327,000	\$ 32,295,000
Annual Balance of Appropriations		\$ 51,629,000	\$ 35,366,000	\$ 36,473,000	\$ 37,613,300	\$ 38,815,700	\$ 41,769,100	\$ 43,059,900
Cumulative Balance of Appropriations		\$ 51,629,000	\$ 86,995,000	\$ 123,468,000	\$ 161,081,300	\$ 199,897,000	\$ 241,666,100	\$ 284,726,000
Expenses/Appropriations		82.9%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%

Project	2024	2025	2026	2027	2028	2029	2030	2031	Total
Combined System									Capital Projects -
Total	\$ 388,635,520	\$ 389,914,286	\$ 391,231,414	\$ 436,588,057	\$ 437,985,398	\$ 434,424,660	\$ 430,907,100	\$ 412,434,013	\$ 5,824,778,448
Total Net Funding Requirement	\$ 399,502,000	\$ 409,681,000	\$ 420,121,000	\$ 480,282,000	\$ 492,499,000	\$ 499,123,000	\$ 505,771,000	\$ 494,000,000	
Estimated Monthly Spending	\$ 33,291,833	\$ 34,140,083	\$ 35,010,083	\$ 40,023,500	\$ 41,041,583	\$ 41,593,583	\$ 42,147,583	\$ 41,166,667	
Annual Balance of Appropriations	\$ 44,389,100	\$ 45,520,400	\$ 46,679,900	\$ 53,365,000	\$ 54,721,900	\$ 55,457,900	\$ 56,197,300	\$ 54,701,700	
Cumulative Balance of Appropriations	\$ 329,115,100	\$ 374,635,500	\$ 421,315,400	\$ 474,680,400	\$ 529,402,300	\$ 584,860,200	\$ 641,057,500	\$ 695,759,200	
Expenses/Appropriations	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	

Project	Inflation Factor	2017	2018	2019	2020	2021	2022	2023
Water Capital Projects		Capital Projects - Scen 4 - 1B						
Engineering and Administration	0.00%	15,789,500	16,421,080	16,913,700	17,421,100	17,943,700	18,481,900	19,036,600
	2.50%	-	-	-	-	-	-	-
Subtotal Engineering and Administration		\$ 15,789,500	\$ 16,421,080	\$ 16,913,700	\$ 17,421,100	\$ 17,943,700	\$ 18,481,900	\$ 19,036,600
Water Treatment Plant	2.50%	43,120,000	44,000,000	45,100,000	46,227,500	47,383,200	48,567,800	49,782,000
	2.50%	-	-	-	-	-	-	-
Subtotal Water Treatment Plant		\$ 43,120,000	\$ 44,000,000	\$ 45,100,000	\$ 46,227,500	\$ 47,383,200	\$ 48,567,800	\$ 49,782,000
Pumping Station	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Pumping Station		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Mains	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Water Mains		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Filtered Water Storage	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Filtered Water Storage		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Load Control Center Expansion	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Load Control Center Expansion		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Distribution System	2.50%	46,060,000	50,060,000	53,361,500	56,796,800	60,370,500	64,087,400	67,952,400
	2.50%	-	-	-	-	-	-	-
Subtotal Distribution System		\$ 46,060,000	\$ 50,060,000	\$ 53,361,500	\$ 56,796,800	\$ 60,370,500	\$ 64,087,400	\$ 67,952,400

Project	Inflation	2017	2018	2019	2020	2021	2022	2023
	Factor							
Large Meter Replacement	2.50%	5,000,000	5,000,000	5,125,000	5,253,100	5,384,500	5,519,100	5,657,000
	2.50%	-	20,000,000	20,500,000	21,012,500	-	-	-
Subtotal Large Meter Replacement		\$ 5,000,000	\$ 25,000,000	\$ 25,625,000	\$ 26,265,600	\$ 5,384,500	\$ 5,519,100	\$ 5,657,000
Vehicles	2.50%	4,000,000	7,500,000	7,687,500	7,879,700	8,076,700	8,278,600	8,485,600
	2.50%	-	-	-	-	-	-	-
Subtotal Vehicles		\$ 4,000,000	\$ 7,500,000	\$ 7,687,500	\$ 7,879,700	\$ 8,076,700	\$ 8,278,600	\$ 8,485,600
Other	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Other		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Water Capital Projects		\$ 113,969,500	\$ 142,981,080	\$ 148,687,700	\$ 154,590,700	\$ 139,158,600	\$ 144,934,800	\$ 150,913,600

Project	Inflation Factor	2017	2018	2019	2020	2021	2022	2023
Wastewater Capital Projects		Capital Projects - Scen 4 - 2B						
Engineering and Administration								
	0.00%	18,535,500	19,276,920	19,855,300	20,450,900	21,064,300	21,696,100	22,347,400
	2.50%	-	-	-	-	-	-	-
Subtotal Engineering and Administration		\$ 18,535,500	\$ 19,276,920	\$ 19,855,300	\$ 20,450,900	\$ 21,064,300	\$ 21,696,100	\$ 22,347,400
Water Pollution Control Plant Improvements								
	2.50%	54,880,000	56,000,000	57,400,000	58,835,000	60,305,900	61,813,500	63,358,900
	2.50%	12,000,000	20,000,000	20,500,000	21,012,500	21,537,800	22,076,300	22,628,200
Subtotal Water Pollution Control Plant Impr		\$ 66,880,000	\$ 76,000,000	\$ 77,900,000	\$ 79,847,500	\$ 81,843,700	\$ 83,889,800	\$ 85,987,100
Storm Flood Relief								
	2.50%	15,000,000	10,000,000	10,250,000	10,506,300	16,153,400	16,557,200	16,971,100
	2.50%	-	-	-	-	-	-	-
Subtotal Storm Flood Relief		\$ 15,000,000	\$ 10,000,000	\$ 10,250,000	\$ 10,506,300	\$ 16,153,400	\$ 16,557,200	\$ 16,971,100
Reconstruction of Old Sewers								
Sewer Reconstruction	2.50%	30,660,000	41,560,000	42,599,000	43,664,000	44,755,600	45,874,500	47,021,300
Interceptor Rehab	2.50%	4,340,000	4,340,000	4,448,500	4,559,700	4,953,700	-	-
CSO System Improvements	2.50%	-	5,000,000	5,125,000	5,253,100	10,768,900	11,038,100	11,314,100
Subtotal Reconstruction of Old Sewers		\$ 35,000,000	\$ 50,900,000	\$ 52,172,500	\$ 53,476,800	\$ 60,478,200	\$ 56,912,600	\$ 58,335,400
Green Infrastructure								
Stream Restoration	2.50%	10,000,000	-	-	-	10,768,900	11,038,100	11,314,100
	2.50%	7,000,000	-	-	-	-	19,195,300	19,675,200
Green Infrastructure	2.50%	31,244,000	47,000,000	48,175,000	49,379,400	50,613,900	55,190,600	56,570,400
Subtotal Green Infrastructure		\$ 48,244,000	\$ 47,000,000	\$ 48,175,000	\$ 49,379,400	\$ 61,382,800	\$ 85,424,000	\$ 87,559,700
Vehicles								
	2.50%	4,000,000	7,500,000	7,687,500	7,879,700	8,076,700	8,278,600	8,485,600
	2.50%	-	-	-	-	-	-	-
Subtotal Vehicles		\$ 4,000,000	\$ 7,500,000	\$ 7,687,500	\$ 7,879,700	\$ 8,076,700	\$ 8,278,600	\$ 8,485,600

Project	Inflation Factor	2017	2018	2019	2020	2021	2022	2023
Other	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Other		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consent Decree/Wet Weather Plan Projects	2.50%	-	-	-	-	-	-	-
	2.50%	-	-	-	-	-	-	-
Subtotal Consent Decree/Wet Weather Plan		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Wastewater Capital Projects		\$ 187,659,500	\$ 210,676,920	\$ 216,040,300	\$ 221,540,600	\$ 248,999,100	\$ 272,758,300	\$ 279,686,300

Project	Inflation Factor	2017	2018	2019	2020	2021	2022	2023
Combined System	Scen 4 - 3A							
							Capital Projects - Scen 4 - 3B	
Total		\$ 301,629,000	\$ 353,658,000	\$ 364,728,000	\$ 376,131,300	\$ 388,157,700	\$ 417,693,100	\$ 430,599,900

Total Net Funding Requirement
 Estimated Monthly Spending

Annual Balance of Appropriations
 Cumulative Balance of Appropriations

Expenses/Appropriations

FINPLAN17.XLS

DEBT SERVICE

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Existing Debt Service

Revenue Bond Debt Service

DS - 1a

Revenue Bonds	Series 1995			Series 1997B VRB			Series 1998 Refunding		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	50.68%	49.32%		48.00%	52.00%		41.00%	59.00%	
Allocation Fiscal Year									
2016	\$ -	\$ -	\$ -	\$ 1,749,120	\$ 1,894,880	3,644,000	\$ -	\$ -	-
2017	-	-	-	1,820,160	1,971,840	3,792,000	-	-	-
2018	-	-	-	2,544,480	2,756,520	5,301,000	-	-	-
2019	-	-	-	2,583,360	2,798,640	5,382,000	-	-	-
2020	-	-	-	2,619,360	2,837,640	5,457,000	-	-	-
2021	-	-	-	2,652,480	2,873,520	5,526,000	-	-	-
2022	-	-	-	2,682,720	2,906,280	5,589,000	-	-	-
2023	-	-	-	2,710,080	2,935,920	5,646,000	-	-	-
2024	-	-	-	2,734,560	2,962,440	5,697,000	-	-	-
2025	-	-	-	2,756,160	2,985,840	5,742,000	-	-	-
2026	-	-	-	2,821,680	3,056,820	5,878,500	-	-	-
2027	-	-	-	2,836,080	3,072,420	5,908,500	-	-	-
2028	-	-	-	2,894,400	3,135,600	6,030,000	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ 33,404,640	\$ 36,188,360	\$ 69,593,000	\$ -	\$ -	\$ -

Existing Debt Service

Revenue Bond Debt Service

DS - 1b

Revenue Bonds Allocation Fiscal Year	Series 2001A&B Refunding			Series 2005A			Series 2005B		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	43.00%	57.00%		49.67%	50.33%		49.67%	50.33%	
2016	\$ -	\$ -	\$ -	\$ 2,957,973	\$ 2,997,277	\$ 5,955,250	\$ 9,082,039	\$ 9,202,718	\$ 18,284,757
2017	-	-	-	-	-	-	9,117,866	9,239,022	18,356,888
2018	-	-	-	-	-	-	9,154,436	9,276,078	18,430,514
2019	-	-	-	-	-	-	83,812	84,925	168,737
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ 2,957,973	\$ 2,997,277	\$ 5,955,250	\$ 27,438,154	\$ 27,802,743	\$ 55,240,897

Existing Debt Service

Revenue Bond Debt Service

DS - 1c

Revenue Bonds	Series 2007A Refunding			Series 2007B Refunding			Series 2009A		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	32.00%	68.00%		32.00%	68.00%		37.00%	63.00%	
Allocation									
Fiscal Year									
2016	\$ 1,338,704	\$ 2,844,746	4,183,450	\$ 2,293,784	\$ 4,874,291	7,168,075	\$ 2,698,794	\$ 4,595,244	7,294,038
2017	3,769,552	8,010,298	11,779,850	2,293,656	4,874,019	7,167,675	3,014,501	5,132,799	8,147,300
2018	3,255,400	6,917,725	10,173,125	89,760	190,740	280,500	1,801,012	3,066,588	4,867,600
2019	-	-	-	-	-	-	1,800,924	3,066,438	4,867,363
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ 8,363,656	\$ 17,772,769	\$ 26,136,425	\$ 4,677,200	\$ 9,939,050	\$ 14,616,250	\$ 9,315,231	\$ 15,861,069	\$ 25,176,300

Existing Debt Service

Revenue Bond Debt Service

DS - 1d

Revenue Bonds Allocation Fiscal Year	Series 2010A Refunding			Series 2010C			Series 2011A		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	46.00%	54.00%		20.00%	80.00%		20.00%	80.00%	
2016	\$ 50,476,828	\$ 59,255,407	109,732,235	\$ 1,804,450	\$ 7,217,800	9,022,250	\$ 1,347,400	\$ 5,389,600	6,737,000
2017	17,220,329	20,215,169	37,435,498	7,908,620	31,634,480	39,543,100	1,347,400	5,389,600	6,737,000
2018	17,223,871	20,219,327	37,443,198	7,631,493	30,525,970	38,157,463	1,347,400	5,389,600	6,737,000
2019	17,228,672	20,224,963	37,453,635	1,182,655	4,730,620	5,913,275	1,347,400	5,389,600	6,737,000
2020	-	-	-	1,183,140	4,732,560	5,915,700	1,347,400	5,389,600	6,737,000
2021	-	-	-	1,183,015	4,732,060	5,915,075	1,347,400	5,389,600	6,737,000
2022	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2023	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2024	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2025	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2026	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2027	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2028	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2029	-	-	-	520,865	2,083,460	2,604,325	1,347,400	5,389,600	6,737,000
2030	-	-	-	765,365	3,061,460	3,826,825	1,347,400	5,389,600	6,737,000
2031	-	-	-	955,605	3,822,420	4,778,025	1,347,400	5,389,600	6,737,000
2032	-	-	-	692,405	2,769,620	3,462,025	1,347,400	5,389,600	6,737,000
2033	-	-	-	682,525	2,730,100	3,412,625	3,797,400	15,189,600	18,987,000
2034	-	-	-	672,645	2,690,580	3,363,225	3,797,500	15,190,000	18,987,500
2035	-	-	-	663,741	2,654,965	3,318,706	3,797,535	15,190,140	18,987,675
2036	-	-	-	1,737,039	6,948,155	8,685,194	3,798,200	15,192,800	18,991,000
2037	-	-	-	1,736,625	6,946,500	8,683,125	3,798,150	15,192,600	18,990,750
2038	-	-	-	1,737,475	6,949,900	8,687,375	3,797,350	15,189,400	18,986,750
2039	-	-	-	1,736,675	6,946,700	8,683,375	3,798,150	15,192,600	18,990,750
2040	-	-	-	1,737,050	6,948,200	8,685,250	3,798,100	15,192,400	18,990,500
2041	-	-	-	1,737,375	6,949,500	8,686,875	3,797,850	15,191,400	18,989,250
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ 102,149,700	\$ 119,914,865	\$ 222,064,565	\$ 39,914,818	\$ 159,659,270	\$ 199,574,088	\$ 57,086,035	\$ 228,344,140	\$ 285,430,175

Existing Debt Service

Revenue Bond Debt Service

DS - 1e

Revenue Bonds Allocation Fiscal Year	Series 2011B			Series 2012			Series 2013A		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	20.00%	80.00%		20.44%	79.56%		19.38%	80.62%	
2016	\$ 492,100	\$ 1,968,400	2,460,500	\$ 664,384	\$ 2,585,866	3,250,250	\$ 1,641,454	\$ 6,830,246	8,471,700
2017	1,592,925	6,371,700	7,964,625	664,384	2,585,866	3,250,250	2,305,072	9,591,628	11,896,700
2018	1,845,950	7,383,800	9,229,750	396,402	1,542,848	1,939,250	2,278,527	9,481,173	11,759,700
2019	1,888,225	7,552,900	9,441,125	396,402	1,542,848	1,939,250	2,245,347	9,343,103	11,588,450
2020	1,881,550	7,526,200	9,407,750	396,402	1,542,848	1,939,250	7,524,990	31,312,210	38,837,200
2021	540,350	2,161,400	2,701,750	396,402	1,542,848	1,939,250	7,427,521	30,906,629	38,334,150
2022	1,957,675	7,830,700	9,788,375	396,402	1,542,848	1,939,250	5,393,311	22,442,089	27,835,400
2023	467,125	1,868,500	2,335,625	396,402	1,542,848	1,939,250	5,394,038	22,445,112	27,839,150
2024	467,975	1,871,900	2,339,875	396,402	1,542,848	1,939,250	496,503	2,065,997	2,562,500
2025	467,825	1,871,300	2,339,125	396,402	1,542,848	1,939,250	496,503	2,065,997	2,562,500
2026	467,650	1,870,600	2,338,250	673,429	2,621,071	3,294,500	496,503	2,065,997	2,562,500
2027	467,400	1,869,600	2,337,000	674,170	2,623,955	3,298,125	496,503	2,065,997	2,562,500
2028	-	-	-	672,151	2,616,099	3,288,250	496,503	2,065,997	2,562,500
2029	-	-	-	7,207,497	28,052,503	35,260,000	496,503	2,065,997	2,562,500
2030	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2031	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2032	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2033	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2034	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2035	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2036	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2037	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2038	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2039	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2040	-	-	-	-	-	-	496,503	2,065,997	2,562,500
2041	-	-	-	-	-	-	3,565,618	14,836,882	18,402,500
2042	-	-	-	-	-	-	3,566,238	14,839,462	18,405,700
2043	-	-	-	-	-	-	3,565,547	14,836,584	18,402,131
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ 12,536,750	\$ 50,147,000	\$ 62,683,750	\$ 13,727,230	\$ 53,428,145	\$ 67,155,375	\$ 53,348,214	\$ 221,987,067	\$ 275,335,281

Existing Debt Service									
Revenue Bond Debt Service									
Revenue Bonds	Series 2014A			Series 2015A Refunding			Series 2015B Refunding		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	19.38%	80.62%		42.00%	58.00%		37.73%	62.27%	
Allocation Fiscal Year									
2016	\$ 1,161,333	\$ 4,832,417	5,993,750	\$ 4,102,823	\$ 5,665,803	9,768,625	\$ 1,820,105	\$ 3,003,716	4,823,821
2017	2,293,020	9,541,480	11,834,500	5,792,220	7,998,780	13,791,000	2,569,559	4,240,541	6,810,100
2018	2,291,107	9,533,518	11,824,625	5,792,220	7,998,780	13,791,000	2,569,559	4,240,541	6,810,100
2019	2,281,904	9,495,221	11,777,125	5,792,220	7,998,780	13,791,000	2,569,559	4,240,541	6,810,100
2020	2,280,572	9,489,678	11,770,250	5,792,220	7,998,780	13,791,000	6,382,667	10,533,308	16,915,975
2021	2,278,925	9,482,825	11,761,750	5,792,220	7,998,780	13,791,000	6,383,941	10,535,409	16,919,350
2022	2,278,242	9,479,983	11,758,225	5,792,220	7,998,780	13,791,000	6,384,318	10,536,032	16,920,350
2023	2,276,900	9,474,400	11,751,300	5,792,220	7,998,780	13,791,000	6,383,327	10,534,398	16,917,725
2024	2,274,798	9,465,652	11,740,450	5,792,220	7,998,780	13,791,000	1,724,938	2,846,662	4,571,600
2025	2,273,088	9,458,537	11,731,625	5,792,220	7,998,780	13,791,000	1,724,938	2,846,662	4,571,600
2026	2,270,109	9,446,141	11,716,250	5,792,220	7,998,780	13,791,000	1,724,938	2,846,662	4,571,600
2027	2,267,735	9,436,265	11,704,000	5,792,220	7,998,780	13,791,000	1,724,938	2,846,662	4,571,600
2028	2,265,725	9,427,900	11,693,625	5,792,220	7,998,780	13,791,000	1,724,938	2,846,662	4,571,600
2029	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,473,666	9,033,184	14,506,850
2030	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,467,204	9,022,521	14,489,725
2031	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,462,252	9,014,348	14,476,600
2032	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,456,404	9,004,696	14,461,100
2033	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,451,027	8,995,823	14,446,850
2034	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,443,716	8,983,759	14,427,475
2035	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,439,387	8,976,613	14,416,000
2036	290,636	1,209,364	1,500,000	5,792,220	7,998,780	13,791,000	5,430,407	8,961,793	14,392,200
2037	290,636	1,209,364	1,500,000	14,719,320	20,326,680	35,046,000	-	-	-
2038	290,636	1,209,364	1,500,000	14,718,113	20,325,013	35,043,125	-	-	-
2039	290,636	1,209,364	1,500,000	14,718,060	20,324,940	35,043,000	-	-	-
2040	290,636	1,209,364	1,500,000	14,719,950	20,327,550	35,047,500	-	-	-
2041	290,636	1,209,364	1,500,000	14,718,323	20,325,303	35,043,625	-	-	-
2042	2,086,257	8,681,118	10,767,375	14,718,165	20,325,085	35,043,250	-	-	-
2043	2,085,797	8,679,203	10,765,000	14,718,008	20,324,868	35,042,875	-	-	-
2044	2,086,306	8,681,319	10,767,625	14,718,428	20,325,448	35,043,875	-	-	-
2045	-	-	-	14,717,850	20,324,650	35,042,500	-	-	-
2046	-	-	-	14,718,795	20,325,955	35,044,750	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ 38,530,083	\$ 160,327,392	\$ 198,857,475	\$ 267,132,233	\$ 368,896,893	\$ 636,029,125	\$ 87,311,785	\$ 144,090,536	\$ 231,402,321

DS - 1f

Existing Debt Service

Revenue Bond Debt Service

DS - 1g

Revenue Bonds	Series 2016A Refunding			TOTAL REVENUE BONDS		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	33.86%	66.14%				
Fiscal Year						
2016	\$ -	\$ -		\$ 83,631,288	\$ 123,158,412	\$ 206,789,701
2017	1,806,490	3,527,946	5,334,435	63,515,754	130,325,167	193,840,921
2018	3,051,593	5,959,545	9,011,138	61,273,211	124,482,751	185,755,962
2019	6,127,827	11,967,211	18,095,038	45,528,306	88,435,791	133,964,097
2020	4,154,964	8,114,349	12,269,313	33,563,264	89,477,173	123,040,438
2021	4,153,609	8,111,704	12,265,313	32,155,862	83,734,776	115,890,638
2022	4,153,990	8,112,448	12,266,438	30,907,143	78,322,220	109,229,363
2023	5,332,947	10,414,866	15,747,813	30,621,304	74,687,884	105,309,188
2024	9,439,124	18,433,939	27,873,063	25,194,784	54,661,278	79,856,063
2025	9,771,844	19,083,718	28,855,563	25,547,245	55,326,743	80,873,988
2026	9,765,876	19,072,062	28,837,938	25,880,669	56,451,194	82,331,863
2027	9,139,421	17,848,641	26,988,063	25,266,732	55,235,381	80,502,113
2028	4,695,783	9,170,530	13,866,313	20,409,984	44,734,628	65,144,613
2029	2,934,438	5,730,749	8,665,188	24,063,224	61,563,638	85,626,863
2030	2,936,047	5,733,891	8,669,938	17,095,375	34,481,613	51,576,988
2031	2,935,369	5,732,568	8,667,938	17,279,985	35,233,077	52,513,063
2032	2,934,743	5,731,345	8,666,088	17,010,310	34,169,402	51,179,713
2033	2,935,014	5,731,874	8,666,888	19,445,325	43,921,538	63,366,863
2034	2,934,540	5,730,948	8,665,488	19,427,760	43,869,427	63,297,188
2035	2,935,090	5,732,022	8,667,113	19,415,112	43,827,882	63,242,994
2036	2,935,651	5,733,118	8,668,769	20,480,655	48,110,007	68,590,663
2037	-	-		21,041,234	45,741,141	66,782,375
2038	-	-		21,040,076	45,739,674	66,779,750
2039	-	-		21,040,024	45,739,601	66,779,625
2040	-	-		21,042,239	45,743,511	66,785,750
2041	-	-		24,109,802	58,512,448	82,622,250
2042	-	-		20,370,661	43,845,664	64,216,325
2043	-	-		20,369,351	43,840,655	64,210,006
2044	-	-		16,804,733	29,006,767	45,811,500
2045	-	-		14,717,850	20,324,650	35,042,500
2046	-	-		14,718,795	20,325,955	35,044,750
2047	-	-		-	-	-
2048	-	-		-	-	-
Total Existing Debt	\$ 95,074,358	\$ 185,673,472	\$ 280,747,829			

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2a

Fiscal Year	Series 1999			Series 2009B			Series 2009C		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation
	100.00%	0.00%		100.00%	0.00%		100.00%	0.00%	
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2016	\$ 90,665	\$ -	90,665	\$ 2,411,341	\$ -	2,411,341	\$ 3,220,002	\$ -	3,220,002
2017	90,665	-	90,665	2,411,341	-	2,411,341	2,753,597	-	2,753,597
2018	90,665	-	90,665	2,534,763	-	2,534,763	2,775,440	-	2,775,440
2019	75,554	-	75,554	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2020	-	-	-	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2021	-	-	-	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2022	-	-	-	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2023	-	-	-	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2024	-	-	-	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2025	-	-	-	2,575,904	-	2,575,904	2,775,440	-	2,775,440
2026	-	-	-	411,167	-	411,167	2,775,440	-	2,775,440
2027	-	-	-	-	-	-	2,775,440	-	2,775,440
2028	-	-	-	-	-	-	2,775,440	-	2,775,440
2029	-	-	-	-	-	-	2,775,440	-	2,775,440
2030	-	-	-	-	-	-	2,775,440	-	2,775,440
2031	-	-	-	-	-	-	2,775,440	-	2,775,440
2032	-	-	-	-	-	-	2,775,440	-	2,775,440
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	0	-	0
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ 347,549	\$ -	\$ 347,549	\$ 25,799,938	\$ -	\$ 25,799,938	\$ 47,605,197	\$ -	\$ 47,605,197

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2b

Fiscal Year	Series 2009D			Series 2010B			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	0.00%	100.00%		0.00%	100.00%		49.67%	50.33%	
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2016	\$ -	\$ 4,911,276	4,911,276	\$ -	\$ 1,709,868	1,709,868	\$ -	\$ -	\$ -
2017	-	4,850,722	4,850,722	-	1,709,868	1,709,868	-	-	-
2018	-	4,389,371	4,389,371	-	1,709,868	1,709,868	-	-	-
2019	-	4,457,621	4,457,621	-	1,797,386	1,797,386	-	-	-
2020	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2021	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2022	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2023	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2024	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2025	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2026	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2027	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2028	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2029	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2030	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2031	-	4,457,621	4,457,621	-	1,826,559	1,826,559	-	-	-
2032	-	2,600,278	2,600,278	-	1,826,559	1,826,559	-	-	-
2033	-	-	-	-	132,326	132,326	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	0	0	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	0	0	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ 74,700,717	\$ 74,700,717	\$ -	\$ 30,804,580	\$ 30,804,580	\$ -	\$ -	\$ -

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2c

Fiscal Year	Allocation	Series xxxx			Series xxxx			Series xxxx		
		Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
		32.00%	68.00%		32.00%	68.00%		37.00%	63.00%	
		Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2016		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017		-	-	-	-	-	-	-	-	-
2018		-	-	-	-	-	-	-	-	-
2019		-	-	-	-	-	-	-	-	-
2020		-	-	-	-	-	-	-	-	-
2021		-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-
2023		-	-	-	-	-	-	-	-	-
2024		-	-	-	-	-	-	-	-	-
2025		-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-
2030		-	-	-	-	-	-	-	-	-
2031		-	-	-	-	-	-	-	-	-
2032		-	-	-	-	-	-	-	-	-
2033		-	-	-	-	-	-	-	-	-
2034		-	-	-	-	-	-	-	-	-
2035		-	-	-	-	-	-	-	-	-
2036		-	-	-	-	-	-	-	-	-
2037		-	-	-	-	-	-	-	-	-
2038		-	-	-	-	-	-	-	-	-
2039		-	-	-	-	-	-	-	-	-
2040		-	-	-	-	-	-	-	-	-
2041		-	-	-	-	-	-	-	-	-
2042		-	-	-	-	-	-	-	-	-
2043		-	-	-	-	-	-	-	-	-
2044		-	-	-	-	-	-	-	-	-
2045		-	-	-	-	-	-	-	-	-
2046		-	-	-	-	-	-	-	-	-
2047		-	-	-	-	-	-	-	-	-
2048		-	-	-	-	-	-	-	-	-
Total Existing Debt		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2d

Allocation	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	46.00%	54.00%		20.00%	80.00%		20.00%	80.00%	
Fiscal Year	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2e

Allocation	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	20.00%	80.00%		20.00%	80.00%		20.00%	80.00%	
Fiscal Year	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2016	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	
2017	-	-		-	-		-	-	
2018	-	-		-	-		-	-	
2019	-	-		-	-		-	-	
2020	-	-		-	-		-	-	
2021	-	-		-	-		-	-	
2022	-	-		-	-		-	-	
2023	-	-		-	-		-	-	
2024	-	-		-	-		-	-	
2025	-	-		-	-		-	-	
2026	-	-		-	-		-	-	
2027	-	-		-	-		-	-	
2028	-	-		-	-		-	-	
2029	-	-		-	-		-	-	
2030	-	-		-	-		-	-	
2031	-	-		-	-		-	-	
2032	-	-		-	-		-	-	
2033	-	-		-	-		-	-	
2034	-	-		-	-		-	-	
2035	-	-		-	-		-	-	
2036	-	-		-	-		-	-	
2037	-	-		-	-		-	-	
2038	-	-		-	-		-	-	
2039	-	-		-	-		-	-	
2040	-	-		-	-		-	-	
2041	-	-		-	-		-	-	
2042	-	-		-	-		-	-	
2043	-	-		-	-		-	-	
2044	-	-		-	-		-	-	
2045	-	-		-	-		-	-	
2046	-	-		-	-		-	-	
2047	-	-		-	-		-	-	
2048	-	-		-	-		-	-	
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service
 Parity PENNVEST Debt Service DS - 2f

		TOTAL PENNVEST REVENUE BONDS		
		Water	Wastewater	Total P&I
Allocation	Fiscal Year			
	2016	\$ 5,722,008	\$ 6,621,144	\$ 12,343,152
	2017	5,255,603	6,560,589	11,816,192
	2018	5,400,868	6,099,238	11,500,106
	2019	5,426,898	6,255,007	11,681,905
	2020	5,351,344	6,284,180	11,635,523
	2021	5,351,344	6,284,180	11,635,523
	2022	5,351,344	6,284,180	11,635,523
	2023	5,351,344	6,284,180	11,635,523
	2024	5,351,344	6,284,180	11,635,523
	2025	5,351,344	6,284,180	11,635,523
	2026	3,186,607	6,284,180	9,470,786
	2027	2,775,440	6,284,180	9,059,619
	2028	2,775,440	6,284,180	9,059,619
	2029	2,775,440	6,284,180	9,059,619
	2030	2,775,440	6,284,180	9,059,619
	2031	2,775,440	6,284,180	9,059,619
	2032	2,775,440	4,426,837	7,202,277
	2033	-	132,326	132,326
	2034	-	-	-
	2035	-	-	-
	2036	-	-	-
	2037	0	0	0
	2038	-	-	-
	2039	-	0	0
	2040	-	-	-
	2041	-	-	-
	2042	-	-	-
	2043	-	-	-
	2044	-	-	-
	2045	-	-	-
	2046	-	-	-
	2047	-	-	-
	2048	-	-	-
Total Existing Debt				

Existing Debt Service

G.O. Bond Debt Service

DS - 3a

G.O. Bonds	Series 2012 Refunding			Series 2012 Refunding			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	50.68%	49.32%		50.68%	49.32%		50.68%	49.32%	
Fiscal Year									
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service

G.O. Bond Debt Service

DS - 3b

G.O. Bonds	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	50.68%	49.32%		50.68%	49.32%		50.68%	49.32%	
Fiscal Year									
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service

G.O. Bond Debt Service

DS - 3c

Fiscal Year	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
	50.68%	49.32%		50.68%	49.32%		50.68%	49.32%	
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service

G.O. Bond Debt Service

DS - 3d

G.O. Bonds	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	50.68%	49.32%		50.68%	49.32%		50.68%	49.32%	
Fiscal Year									
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service

G.O. Bond Debt Service

DS - 3e

G.O. Bonds	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	50.68%	49.32%		50.68%	49.32%		50.68%	49.32%	
Fiscal Year									
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-
Total Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service
G.O. Bond Debt Service DS - 3f

G.O. Bonds	TOTAL G.O. BONDS		
	Water	Wastewater	Total P&I
Allocation			
Fiscal Year			
2016	\$ -	\$ -	\$ -
2017	-	-	-
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-
2023	-	-	-
2024	-	-	-
2025	-	-	-
2026	-	-	-
2027	-	-	-
2028	-	-	-
2029	-	-	-
2030	-	-	-
2031	-	-	-
2032	-	-	-
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-
2039	-	-	-
2040	-	-	-
2041	-	-	-
2042	-	-	-
2043	-	-	-
2044	-	-	-
2045	-	-	-
2046	-	-	-
2047	-	-	-
2048	-	-	-
Total Existing Debt			

Proposed Debt Service

Proposed Revenue Bonds

DS - 4

Capital Financing Assumptions	2017	2018	2019	2020	2021	2022	2023
Future Revenue Bonds							
Issuance Amount	\$ 313,650,523	\$ -	\$ 285,000,000	\$ 295,000,000	\$ 305,000,000	\$ 340,000,000	\$ 335,000,000
Annual Payment	21,990,442	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
Debt Service Reserve Requirement	11,888,317	-	-	7,953,223	324,516	22,974,712	17,193,693
Term (yrs)	30	30	30	30	30	30	30
Interest Rate	5.25%	5.25%	5.50%	5.75%	6.00%	6.00%	6.00%
Issuance Costs	0.56%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Month of Sale (July=1)	10	7	2	2	2	2	2
Capitalized Interest term (yrs)	0	0	0	0	0	0	0
Interest Only Period (years)	3	1	1	1	1	0	0
Initial Payment Adjustment (months)	0	0	3	3	3	3	3
Water Allocation	41.45%	28.45%	42.11%	40.68%	36.07%	35.29%	35.82%
Wastewater Allocation	58.55%	71.55%	57.89%	59.32%	63.93%	64.71%	64.18%

Proposed Debt Service

Proposed Revenue Bonds

DS - 4

Future Revenue Bonds Schedules

	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	\$ -						
2018	16,466,652	\$ -					
2019	16,466,652		\$ 11,756,250				
2020	16,466,652		19,884,043	\$ 12,721,875			
2021	21,990,442		19,884,043	21,140,691	\$ 13,725,000		
2022	21,990,442		19,884,043	21,140,691	22,441,782	\$ 17,450,315	
2023	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	\$ 17,193,693
2024	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2025	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2026	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2027	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2028	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2029	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2030	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2031	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2032	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2033	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2034	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2035	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2036	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2037	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2038	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2039	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2040	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2041	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2042	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2043	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2044	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2045	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2046	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2047	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2048	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2049	21,990,442		19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2050	21,990,442		3,918,750	21,140,691	22,441,782	24,700,630	24,337,385
Total Proposed Revenue Bonds	\$ 709,113,224	\$ -	\$ 612,196,291	\$ 646,942,599	\$ 664,536,681	\$ 709,067,952	\$ 674,303,097
	\$ 709,113,224	\$ -	\$ 612,196,291	\$ 651,183,224	\$ 691,553,464	\$ 741,018,897	\$ 730,121,560

Proposed Debt Service

Proposed Revenue Bonds DS - 4

INPUT	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	-						
2018	13,645,588	9,124,254					
2019	33,616,125	8,560,250					
2020	32,616,125	8,560,250					
2021	12,116,125	14,390,750					
2022	12,116,125	11,322,750					
2023	12,116,125	14,529,500					
2024	12,116,125	15,472,375					
2025	12,116,125	14,521,875					
2026	12,116,125	13,994,750					
2027	12,116,125	15,786,625					
2028	12,116,125	15,776,625					
2029	12,116,125	9,976,000					
2030	12,116,125	36,432,500					
2031	12,116,125	35,571,375					
2032	12,116,125	35,828,375					
2033	19,082,500	3,848,000					
2034	19,086,000	3,897,875					
2035	19,085,625	3,946,250					
2036	19,085,500	-					
2037	19,084,625	-					
2038	19,082,000	-					
2039	19,086,375	-					
2040	19,081,625	-					
2041	8,688,125	-					
2042	19,081,625	-					
2043	19,084,875	-					
2044	19,085,000	-					
2045	19,085,625	-					
2046	19,085,250	-					
2047	19,082,375	-					
2048	19,085,250	-					
2049	19,085,656	-					
2050	19,085,631	-					
Total Proposed Revenue Bonds	\$ 558,395,000	\$ 271,540,379	\$ -	\$ -	\$ -	\$ -	\$ -

Proposed Debt Service

Proposed Revenue Bonds

DS - 4

USE	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	\$ -						
2018	13,645,588	\$ 9,124,254					
2019	33,616,125	8,560,250	\$ 11,756,250				
2020	32,616,125	8,560,250	19,884,043	\$ 12,721,875			
2021	12,116,125	14,390,750	19,884,043	21,140,691	\$ 13,725,000		
2022	12,116,125	11,322,750	19,884,043	21,140,691	22,441,782	\$ 17,450,315	
2023	12,116,125	14,529,500	19,884,043	21,140,691	22,441,782	24,700,630	\$ 17,193,693
2024	12,116,125	15,472,375	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2025	12,116,125	14,521,875	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2026	12,116,125	13,994,750	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2027	12,116,125	15,786,625	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2028	12,116,125	15,776,625	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2029	12,116,125	9,976,000	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2030	12,116,125	36,432,500	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2031	12,116,125	35,571,375	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2032	12,116,125	35,828,375	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2033	19,082,500	3,848,000	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2034	19,086,000	3,897,875	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2035	19,085,625	3,946,250	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2036	19,085,500	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2037	19,084,625	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2038	19,082,000	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2039	19,086,375	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2040	19,081,625	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2041	8,688,125	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2042	19,081,625	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2043	19,084,875	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2044	19,085,000	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2045	19,085,625	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2046	19,085,250	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2047	19,082,375	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2048	19,085,250	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2049	19,085,656	-	19,884,043	21,140,691	22,441,782	24,700,630	24,337,385
2050	19,085,631	-	3,918,750	21,140,691	22,441,782	24,700,630	24,337,385
Total Proposed Revenue Bonds	\$ 558,395,000	\$ 271,540,379	\$ 612,196,291	\$ 646,942,599	\$ 664,536,681	\$ 709,067,952	\$ 674,303,097

Proposed Debt Service

Future State Revolving Fund DS - 5

Issuance Amount	\$	-	\$	-	\$	-	\$	-	\$	-
Annual Payment		-		-		-		-		-
Term (yrs)		5		5		5		5		5
Interest Rate		2.50%		2.50%		2.50%		2.50%		2.50%
Issuance Costs		1.00%		1.00%		1.00%		1.00%		1.00%
Water Allocation		50.00%		50.00%		50.00%		50.00%		50.00%
Wastewater Allocation		50.00%		50.00%		50.00%		50.00%		50.00%

Proposed Debt Service

Future State Revolving Fund

DS - 5

Future State Revolving Fund Schedules

	2017	2018	2019	2020	2021	2022	2023
2017	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-
2049	-	-	-	-	-	-	-
2050	-	-	-	-	-	-	-
Total Proposed SRF Loans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Proposed Debt Service

Future G.O. Bonds DS - 6

Issuance Amount	\$	-	\$	-	\$	-	\$	-	\$	-
Annual Payment		-		-		-		-		-
Term (yrs)		20		20		20		20		20
Interest Rate		4.00%		4.00%		4.00%		4.00%		4.00%
Issuance Costs		1.00%		1.00%		1.00%		1.00%		1.00%
Water Allocation		50.00%		50.00%		50.00%		50.00%		50.00%
Wastewater Allocation		50.00%		50.00%		50.00%		50.00%		50.00%

Proposed Debt Service

Future G.O. Bonds

DS - 6

Future G.O. Bonds Schedules	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-
2032	-	-	-	-	-	-	-
2033	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-
2049	-	-	-	-	-	-	-
2050	-	-	-	-	-	-	-
Total Proposed G.O. Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing & Proposed Debt Service

PWD Debt Service DS - 7

Debt Service Summary

	2017	2018	2019	2020	2021	2022	2023
Existing Debt Service							
Revenue Bonds	\$ 193,840,921	\$ 185,755,962	\$ 133,964,097	\$ 123,040,438	\$ 115,890,638	\$ 109,229,363	\$ 105,309,188
Parity PENNVEST	11,816,192	11,500,106	11,681,905	11,635,523	11,635,523	11,635,523	11,635,523
Subtotal Senior Debt	\$ 205,657,114	\$ 197,256,068	\$ 145,646,002	\$ 134,675,961	\$ 127,526,161	\$ 120,864,886	\$ 116,944,711
G.O. Bonds	-	-	-	-	-	-	-
Total Existing Debt Service	\$ 205,657,114	\$ 197,256,068	\$ 145,646,002	\$ 134,675,961	\$ 127,526,161	\$ 120,864,886	\$ 116,944,711
Proposed Debt Service							
Revenue Bonds	\$ -	\$ 22,769,842	\$ 53,932,625	\$ 73,782,293	\$ 81,256,609	\$ 104,355,706	\$ 132,006,464
Parity PENNVEST	-	-	-	-	-	-	-
Subtotal Senior Debt	\$ -	\$ 22,769,842	\$ 53,932,625	\$ 73,782,293	\$ 81,256,609	\$ 104,355,706	\$ 132,006,464
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	\$ -	\$ 22,769,842	\$ 53,932,625	\$ 73,782,293	\$ 81,256,609	\$ 104,355,706	\$ 132,006,464
Total Debt Service	\$ 205,657,114	\$ 220,025,910	\$ 199,578,627	\$ 208,458,254	\$ 208,782,770	\$ 225,220,592	\$ 248,951,175

Existing & Proposed Debt Service
PWD Debt Service DS - 7
 Cumulative Revenue Bond Debt Service

	Existing Debt	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	\$ 205,657,114	\$ 205,657,114						
2018	197,256,068	210,901,656	220,025,910					
2019	145,646,002	179,262,127	187,822,377	199,578,627				
2020	134,675,961	167,292,086	175,852,336	195,736,379	208,458,254			
2021	127,526,161	139,642,286	154,033,036	173,917,079	195,057,770	208,782,770		
2022	120,864,886	132,981,011	144,303,761	164,187,804	185,328,495	207,770,277	225,220,592	
2023	116,944,711	129,060,836	143,590,336	163,474,379	184,615,070	207,056,852	231,757,482	248,951,175
2024	91,491,586	103,607,711	119,080,086	138,964,129	160,104,820	182,546,602	207,247,232	231,584,617
2025	92,509,511	104,625,636	119,147,511	139,031,554	160,172,245	182,614,027	207,314,657	231,652,042
2026	91,802,649	103,918,774	117,913,524	137,797,567	158,938,257	181,380,040	206,080,669	230,418,055
2027	89,561,732	101,677,857	117,464,482	137,348,525	158,489,216	180,930,998	205,631,628	229,969,013
2028	74,204,232	86,320,357	102,096,982	121,981,025	143,121,716	165,563,498	190,264,128	214,601,513
2029	94,686,482	106,802,607	116,778,607	136,662,650	157,803,341	180,245,123	204,945,753	229,283,138
2030	60,636,607	72,752,732	109,185,232	129,069,275	150,209,966	172,651,748	197,352,378	221,689,763
2031	61,572,682	73,688,807	109,260,182	129,144,225	150,284,916	172,726,698	197,427,328	221,764,713
2032	58,381,990	70,498,115	106,326,490	126,210,533	147,351,224	169,793,006	194,493,636	218,831,021
2033	63,499,188	82,581,688	86,429,688	106,313,731	127,454,422	149,896,204	174,596,834	198,934,220
2034	63,297,188	82,383,188	86,281,063	106,165,106	127,305,796	149,747,578	174,448,208	198,785,594
2035	63,242,994	82,328,619	86,274,869	106,158,912	127,299,603	149,741,385	174,442,015	198,779,400
2036	68,590,663	87,676,163	87,676,163	107,560,206	128,700,896	151,142,678	175,843,308	200,180,694
2037	66,782,375	85,867,000	85,867,000	105,751,043	126,891,734	149,333,516	174,034,146	198,371,531
2038	66,779,750	85,861,750	85,861,750	105,745,793	126,886,484	149,328,266	174,028,896	198,366,281
2039	66,779,625	85,866,000	85,866,000	105,750,043	126,890,734	149,332,516	174,033,146	198,370,531
2040	66,785,750	85,867,375	85,867,375	105,751,418	126,892,109	149,333,891	174,034,521	198,371,906
2041	82,622,250	91,310,375	91,310,375	111,194,418	132,335,109	154,776,891	179,477,521	203,814,906
2042	64,216,325	83,297,950	83,297,950	103,181,993	124,322,684	146,764,466	171,465,096	195,802,481
2043	64,210,006	83,294,881	83,294,881	103,178,924	124,319,615	146,761,397	171,462,027	195,799,412
2044	45,811,500	64,896,500	64,896,500	84,780,543	105,921,234	128,363,016	153,063,646	177,401,031
2045	35,042,500	54,128,125	54,128,125	74,012,168	95,152,859	117,594,641	142,295,271	166,632,656
2046	35,044,750	54,130,000	54,130,000	74,014,043	95,154,734	117,596,516	142,297,146	166,634,531
2047	-	19,082,375	19,082,375	38,966,418	60,107,109	82,548,891	107,249,521	131,586,906
2048	-	19,085,250	19,085,250	38,969,293	60,109,984	82,551,766	107,252,396	131,589,781
Max	\$ 205,657,114	\$ 210,901,656	\$ 220,025,910	\$ 199,578,627	\$ 208,458,254	\$ 208,782,770	\$ 231,757,482	\$ 248,951,175
Required DSR Deposit		\$ 11,888,317	\$ (19,000,000)	\$ -	\$ 7,953,223	\$ 324,516	\$ 22,974,712	\$ 17,193,693
		\$ (11,000,000)	\$ (19,000,000)	\$ -	\$ -	\$ -	\$ -	\$ -
Projected Debt Service Reserve		\$ 219,505,031	\$ 200,505,031	\$ 200,505,031	\$ 208,458,254	\$ 208,782,770	\$ 231,757,482	\$ 248,951,175

Water System Debt Service

DS - 8

Debt Service Summary

	2017	2018	2019	2020	2021	2022	2023
Existing Debt Service							
Revenue Bonds	\$ 63,515,754	\$ 61,273,211	\$ 45,528,306	\$ 33,563,264	\$ 32,155,862	\$ 30,907,143	\$ 30,621,304
Parity PENNVEST	5,255,603	5,400,868	5,426,898	5,351,344	5,351,344	5,351,344	5,351,344
Subtotal Senior Debt	\$ 68,771,357	\$ 66,674,079	\$ 50,955,204	\$ 38,914,608	\$ 37,507,205	\$ 36,258,487	\$ 35,972,647
G.O. Bonds	-	-	-	-	-	-	-
Total Existing Debt Service	\$ 68,771,357	\$ 66,674,079	\$ 50,955,204	\$ 38,914,608	\$ 37,507,205	\$ 36,258,487	\$ 35,972,647
Proposed Debt Service							
Revenue Bonds	\$ -	\$ 8,251,592	\$ 21,318,402	\$ 29,501,157	\$ 31,037,819	\$ 39,467,666	\$ 49,097,855
Parity PENNVEST	-	-	-	-	-	-	-
Subtotal Senior Debt	\$ -	\$ 8,251,592	\$ 21,318,402	\$ 29,501,157	\$ 31,037,819	\$ 39,467,666	\$ 49,097,855
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	\$ -	\$ 8,251,592	\$ 21,318,402	\$ 29,501,157	\$ 31,037,819	\$ 39,467,666	\$ 49,097,855
Total Debt Service							
Revenue Bonds	\$ 63,515,754	\$ 69,524,803	\$ 66,846,709	\$ 63,064,421	\$ 63,193,681	\$ 70,374,808	\$ 79,719,159
Parity PENNVEST	5,255,603	5,400,868	5,426,898	5,351,344	5,351,344	5,351,344	5,351,344
Subtotal Senior Debt	\$ 68,771,357	\$ 74,925,671	\$ 72,273,607	\$ 68,415,765	\$ 68,545,025	\$ 75,726,152	\$ 85,070,503
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	\$ 68,771,357	\$ 74,925,671	\$ 72,273,607	\$ 68,415,765	\$ 68,545,025	\$ 75,726,152	\$ 85,070,503

Water System Debt Service

DS - 8

Cumulative Revenue Bond Debt Service

	Existing Debt	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	68,771,357	68,771,357						
2018	66,674,079	73,499,079	73,499,079					
2019	50,955,204	57,780,204	57,780,204	62,730,204				
2020	38,914,608	45,739,608	45,739,608	54,111,837	59,286,837			
2021	37,507,205	46,621,673	46,621,673	54,993,902	63,593,505	68,543,505		
2022	36,258,487	45,372,954	45,372,954	53,745,183	62,344,786	70,438,543	76,597,478	
2023	35,972,647	45,087,115	45,087,115	53,459,344	62,058,947	70,152,704	78,870,574	85,029,508
2024	30,546,128	39,660,595	39,660,595	48,032,824	56,632,427	64,726,184	73,444,054	82,161,923
2025	30,898,588	40,013,056	40,013,056	48,385,285	56,984,888	65,078,645	73,796,514	82,514,384
2026	29,067,275	38,181,743	38,181,743	46,553,971	55,153,574	63,247,332	71,965,201	80,683,071
2027	28,042,172	37,156,639	37,156,639	45,528,868	54,128,471	62,222,228	70,940,098	79,657,967
2028	23,185,424	32,299,892	32,299,892	40,672,120	49,271,723	57,365,481	66,083,350	74,801,219
2029	26,838,664	35,953,132	35,953,132	44,325,360	52,924,963	61,018,721	69,736,590	78,454,460
2030	19,870,815	28,985,282	28,985,282	37,357,511	45,957,114	54,050,871	62,768,741	71,486,610
2031	20,055,425	29,169,893	29,169,893	37,542,121	46,141,724	54,235,482	62,953,351	71,671,221
2032	19,785,751	28,900,218	28,900,218	37,272,447	45,872,050	53,965,807	62,683,677	71,401,546
2033	19,445,325	28,559,792	28,559,792	36,932,021	45,531,624	53,625,381	62,343,251	71,061,120
2034	19,427,760	28,542,227	28,542,227	36,914,456	45,514,059	53,607,817	62,325,686	71,043,555
2035	19,415,112	28,529,579	28,529,579	36,901,808	45,501,411	53,595,168	62,313,038	71,030,907
2036	20,480,655	29,595,123	29,595,123	37,967,351	46,566,954	54,660,712	63,378,581	72,096,451
2037	21,041,234	30,155,701	30,155,701	38,527,930	47,127,533	55,221,291	63,939,160	72,657,029
2038	21,040,076	30,154,544	30,154,544	38,526,773	47,126,376	55,220,133	63,938,002	72,655,872
2039	21,040,024	30,154,491	30,154,491	38,526,720	47,126,323	55,220,081	63,937,950	72,655,819
2040	21,042,239	30,156,706	30,156,706	38,528,935	47,128,538	55,222,296	63,940,165	72,658,034
2041	24,109,802	33,224,269	33,224,269	41,596,498	50,196,101	58,289,858	67,007,728	75,725,597
2042	20,370,661	29,485,128	29,485,128	37,857,357	46,456,960	54,550,717	63,268,587	71,986,456
2043	20,369,351	29,483,819	29,483,819	37,856,048	46,455,651	54,549,408	63,267,277	71,985,147
2044	16,804,733	25,919,201	25,919,201	34,291,429	42,891,032	50,984,790	59,702,659	68,420,529
2045	14,717,850	23,832,317	23,832,317	32,204,546	40,804,149	48,897,907	57,615,776	66,333,645
2046	14,718,795	23,833,262	23,833,262	32,205,491	40,805,094	48,898,852	57,616,721	66,334,590
2047	-	9,114,467	9,114,467	17,486,696	26,086,299	34,180,057	42,897,926	51,615,795
2048	-	9,114,467	9,114,467	17,486,696	26,086,299	34,180,057	42,897,926	51,615,795

Max	\$	68,771,357	\$	73,499,079	\$	73,499,079	\$	62,730,204	\$	63,593,505	\$	70,438,543	\$	78,870,574	\$	85,029,508
Required DSR Deposit		\$	4,727,721	\$	-	\$	-	\$	863,300	\$	6,845,039	\$	8,432,030	\$	6,158,935	

Wastewater System Debt Service

DS - 9

Debt Service Summary

	2017	2018	2019	2020	2021	2022	2023
Existing Debt Service							
Revenue Bonds	\$ 130,325,167	\$ 124,482,751	\$ 88,435,791	\$ 89,477,173	\$ 83,734,776	\$ 78,322,220	\$ 74,687,884
Parity PENNVEST	6,560,589	6,099,238	6,255,007	6,284,180	6,284,180	6,284,180	6,284,180
Subtotal Senior Debt	\$ 136,885,756	\$ 130,581,989	\$ 94,690,798	\$ 95,761,353	\$ 90,018,955	\$ 84,606,399	\$ 80,972,063
G.O. Bonds	-	-	-	-	-	-	-
Total Existing Debt Service	\$ 136,885,756	\$ 130,581,989	\$ 94,690,798	\$ 95,761,353	\$ 90,018,955	\$ 84,606,399	\$ 80,972,063
Proposed Debt Service							
Revenue Bonds	\$ -	\$ 14,518,250	\$ 32,614,223	\$ 44,281,136	\$ 50,218,789	\$ 64,888,040	\$ 82,908,608
Parity PENNVEST	-	-	-	-	-	-	-
Subtotal Senior Debt	\$ -	\$ 14,518,250	\$ 32,614,223	\$ 44,281,136	\$ 50,218,789	\$ 64,888,040	\$ 82,908,608
G.O. Bonds	-	-	-	-	-	-	-
Total Proposed Debt Service	\$ -	\$ 14,518,250	\$ 32,614,223	\$ 44,281,136	\$ 50,218,789	\$ 64,888,040	\$ 82,908,608
Total Debt Service							
Revenue Bonds	\$ 130,325,167	\$ 139,001,001	\$ 121,050,014	\$ 133,758,309	\$ 133,953,565	\$ 143,210,260	\$ 157,596,492
Parity PENNVEST	6,560,589	6,099,238	6,255,007	6,284,180	6,284,180	6,284,180	6,284,180
Subtotal Senior Debt	\$ 136,885,756	\$ 145,100,239	\$ 127,305,020	\$ 140,042,489	\$ 140,237,745	\$ 149,494,440	\$ 163,880,672
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	\$ 136,885,756	\$ 145,100,239	\$ 127,305,020	\$ 140,042,489	\$ 140,237,745	\$ 149,494,440	\$ 163,880,672

Wastewater System Debt Service

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Cumulative Revenue Bond Debt Service

	Existing Debt	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021	Series 2022	Series 2023
2017	136,885,756	136,885,756						
2018	130,581,989	137,402,577	146,526,831					
2019	94,690,798	121,481,923	130,042,173	136,848,423				
2020	95,761,353	121,552,478	130,112,728	141,624,542	149,171,417			
2021	90,018,955	93,020,613	107,411,363	118,923,177	131,464,265	140,239,265		
2022	84,606,399	87,608,057	98,930,807	110,442,621	122,983,709	137,331,734	148,623,114	
2023	80,972,063	83,973,721	98,503,221	110,015,035	122,556,123	136,904,148	152,886,908	163,921,666
2024	60,945,458	63,947,116	79,419,491	90,931,305	103,472,393	117,820,417	133,803,178	149,422,694
2025	61,610,922	64,612,580	79,134,455	90,646,269	103,187,357	117,535,382	133,518,142	149,137,658
2026	62,735,373	65,737,031	79,731,781	91,243,595	103,784,683	118,132,708	134,115,468	149,734,984
2027	61,519,560	64,521,218	80,307,843	91,819,657	104,360,745	118,708,770	134,691,530	150,311,046
2028	51,018,808	54,020,465	69,797,090	81,308,905	93,849,992	108,198,017	124,180,778	139,800,294
2029	67,847,818	70,849,475	80,825,475	92,337,290	104,878,377	119,226,402	135,209,162	150,828,678
2030	40,765,792	43,767,450	80,199,950	91,711,764	104,252,852	118,600,876	134,583,637	150,203,153
2031	41,517,257	44,518,914	80,090,289	91,602,104	104,143,191	118,491,216	134,473,977	150,093,493
2032	38,596,239	41,597,897	77,426,272	88,938,086	101,479,174	115,827,198	131,809,959	147,429,475
2033	44,053,864	54,021,896	57,869,896	69,381,711	81,922,799	96,270,823	112,253,584	127,873,100
2034	43,869,427	53,840,960	57,738,835	69,250,649	81,791,737	96,139,762	112,122,522	127,742,038
2035	43,827,882	53,799,039	57,745,289	69,257,104	81,798,192	96,146,216	112,128,977	127,748,493
2036	48,110,007	58,081,040	58,081,040	69,592,854	82,133,942	96,481,967	112,464,727	128,084,243
2037	45,741,141	55,711,299	55,711,299	67,223,113	79,764,201	94,112,225	110,094,986	125,714,502
2038	45,739,674	55,707,206	55,707,206	67,219,020	79,760,108	94,108,133	110,090,893	125,710,409
2039	45,739,601	55,711,509	55,711,509	67,223,323	79,764,411	94,112,435	110,095,196	125,714,712
2040	45,743,511	55,710,669	55,710,669	67,222,483	79,763,571	94,111,595	110,094,356	125,713,872
2041	58,512,448	58,086,106	58,086,106	69,597,920	82,139,008	96,487,033	112,469,793	128,089,309
2042	43,845,664	53,812,822	53,812,822	65,324,636	77,865,724	92,213,749	108,196,509	123,816,025
2043	43,840,655	53,811,062	53,811,062	65,322,877	77,863,964	92,211,989	108,194,750	123,814,266
2044	29,006,767	38,977,299	38,977,299	50,489,114	63,030,201	77,378,226	93,360,987	108,980,503
2045	20,324,650	30,295,808	30,295,808	41,807,622	54,348,710	68,696,734	84,679,495	100,299,011
2046	20,325,955	30,296,738	30,296,738	41,808,552	54,349,640	68,697,664	84,680,425	100,299,941
2047	-	9,967,908	9,967,908	21,479,722	34,020,810	48,368,834	64,351,595	79,971,111
2048	-	19,085,250	19,085,250	38,969,293	60,109,984	82,551,766	107,252,396	131,589,781
Max	\$ 136,885,756	\$ 137,402,577	\$ 146,526,831	\$ 141,624,542	\$ 149,171,417	\$ 140,239,265	\$ 152,886,908	\$ 163,921,666
Required DSR Deposit	\$ -	\$ 516,821	\$ 9,124,254	\$ -	\$ 7,546,875	\$ -	\$ 12,647,643	\$ 11,034,758

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FUNDS

Index	Description	Table
Funds	Funds Worksheet	
Funds - 1	Combined Utility Funds	TABLE C-8
Funds - 2	Water Utility Fund Balances	TABLE W-4
Funds - 3	Wastewater Utility Fund Balances	TABLE WW

Description	2017	2018	2019	2020	2021	2022	2023
Combined Utility Funds							
Funds - 1							
Projected Flow of Funds - Construction Fund							
Construction Funds Available							
Beginning Balance	\$ 283,139,819	\$ 392,110,709	\$ 136,328,800	\$ 146,699,341	\$ 155,504,190	\$ 171,115,040	\$ 177,182,823
Transfer from Revenue Bond Proceeds	313,650,523	-	285,000,000	295,000,000	305,000,000	340,000,000	335,000,000
PENNVest Loan Proceeds	-	-	-	-	-	-	-
General Obligation Bonds	-	-	-	-	-	-	-
Non-City Sources	7,155,293	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-
Transfer from Residual Fund (Cash Financing)	28,300,000	38,500,000	20,200,000	25,700,000	24,500,000	28,200,000	33,900,000
Capital Account Deposit	22,302,330	23,060,609	35,767,005	36,983,083	38,240,508	39,540,685	40,885,068
Interest	1,213,267	949,482	508,535	542,989	586,858	625,810	640,921
Total Funds Available	\$ 655,761,232	\$ 454,620,800	\$ 477,804,341	\$ 504,925,413	\$ 523,831,556	\$ 579,481,535	\$ 587,608,812
Construction Funds Used							
Capital Improvements	\$ 250,000,000	\$ 318,292,000	\$ 328,255,000	\$ 338,518,000	\$ 349,342,000	\$ 375,924,000	\$ 387,540,000
Revenue Bond Issuance Expense	1,762,206	-	2,850,000	2,950,000	3,050,000	3,400,000	3,350,000
Revenue Bond Debt Service Reserve Requirement	11,888,317	-	-	7,953,223	324,516	22,974,712	17,193,693
State Revolving Fund Issuance Expense	-	-	-	-	-	-	-
General Obligation Bond Issuance Expense	-	-	-	-	-	-	-
Total Funds Utilized	\$ 263,650,523	\$ 318,292,000	\$ 331,105,000	\$ 349,421,223	\$ 352,716,516	\$ 402,298,712	\$ 408,083,693
Ending Balance	✓ \$ 392,110,709	✗ \$ 136,328,800	✗ \$ 146,699,341	✗ \$ 155,504,190	✗ \$ 171,115,040	✗ \$ 177,182,823	✗ \$ 179,525,119
Balance Target	\$ 265,243,333	\$ 136,772,917	\$ 141,049,167	\$ 145,559,167	\$ 156,635,000	\$ 161,475,000	\$ 166,459,167
Interest Income	\$ 1,213,267	\$ 949,482	\$ 508,535	\$ 542,989	\$ 586,858	\$ 625,810	\$ 640,921
Projected Flow of Funds - Rate Stabilization							
Rate Stabilization Funds Available							
Beginning Balance	\$ 205,760,628	\$ 201,197,628	\$ 188,997,628	\$ 177,597,628	\$ 156,397,628	\$ 145,297,628	\$ 141,397,628
Deposit From (to) Operating Fund	(4,563,000)	(12,200,000)	(11,400,000)	(21,200,000)	(11,100,000)	(3,900,000)	(700,000)
Ending Balance	\$ 201,197,628	\$ 188,997,628	\$ 177,597,628	\$ 156,397,628	\$ 145,297,628	\$ 141,397,628	\$ 140,697,628
Interest Income	\$ 732,525	\$ 702,351	\$ 659,871	\$ 601,191	\$ 543,051	\$ 516,051	\$ 507,771
Projected Flow of Funds - Debt Service Reserve							
Debt Service Reserve Funds Available							
Beginning Balance	\$ 218,616,714	\$ 219,505,031	\$ 200,505,031	\$ 200,505,031	\$ 208,458,254	\$ 208,782,770	\$ 231,757,482
Transfer From Bond Proceeds	11,888,317	-	-	7,953,223	324,516	22,974,712	17,193,693
Transfer From Residual Fund	-	-	-	-	-	-	-
Debt Service Fund Release	(11,000,000)	(19,000,000)	-	-	-	-	-
Ending Balance	\$ 219,505,031	\$ 200,505,031	\$ 200,505,031	\$ 208,458,254	\$ 208,782,770	\$ 231,757,482	\$ 248,951,175
Interest Income	\$ 1,866,455	\$ 756,018	\$ 721,818	\$ 736,134	\$ 751,034	\$ 792,972	\$ 865,276

Description	2017	2018	2019	2020	2021	2022	2023
Projected Flow of Funds - Revenue Fund							
Revenue Funds Available							
Beginning Balance	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670
Existing Service Charge Revenues	684,855,520	711,669,628	703,563,630	699,114,668	693,928,772	688,949,876	684,032,431
Additional Service Charge Revenues	-	-	9,203,717	37,319,151	69,936,024	117,935,655	171,570,467
Other Operating Revenue	32,286,718	39,647,197	16,186,787	13,007,518	10,025,476	9,947,663	9,870,533
Interest Earnings	385,590	406,200	363,569	358,009	376,472	398,388	416,835
Construction Fund Interest Earnings	-	-	-	-	-	-	-
Debt Service Reserve Interest Earnings (above SCOOP)	-	-	-	-	-	-	-
Rate Stabilization Fund Interest Earnings	732,525	702,351	659,871	601,191	543,051	516,051	507,771
Transfer from Rate Stabilization Fund	4,563,000	12,200,000	11,400,000	21,200,000	11,100,000	3,900,000	700,000
Total Funds Available	\$ 801,867,022	\$ 843,669,046	\$ 820,421,244	\$ 850,644,207	\$ 864,953,466	\$ 900,691,303	\$ 946,141,707
Revenue Funds Used							
Total Operating Expense	455,741,650	464,117,740	485,843,893	500,534,648	514,420,210	528,771,462	543,451,371
Total Senior Debt Service	205,657,114	220,025,910	199,578,627	208,458,254	208,782,770	225,220,592	248,951,175
Total Subordinate Debt Service	-	-	-	-	-	-	-
Transfer to Escrow	11,000,000	19,000,000	-	-	-	-	-
Capital Account Deposit	22,302,330	23,060,609	35,767,005	36,983,083	38,240,508	39,540,685	40,885,068
Transfer to Rate Stabilization Fund	-	-	-	-	-	-	-
Transfer to Residual Fund	28,122,258	38,421,117	20,188,048	25,624,552	24,466,308	28,114,894	33,810,424
Total Funds Utilized	\$ 722,823,352	\$ 764,625,376	\$ 741,377,574	\$ 771,600,537	\$ 785,909,796	\$ 821,647,633	\$ 867,098,037
Ending Balance	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670	\$ 79,043,670
Projected Flow of Funds - Residual Fund							
Operating Funds Available							
Beginning Balance	\$ 15,188,580	\$ 15,065,197	\$ 15,040,407	\$ 15,082,579	\$ 15,061,293	\$ 15,081,761	\$ 15,050,796
Transfer from Revenue Fund	28,122,258	38,421,117	20,188,048	25,624,552	24,466,308	28,114,894	33,810,424
Interest on Debt Service Reserve to fund Transfer to General Fund	1,866,455	756,018	721,818	736,134	751,034	792,972	865,276
Transfer to Debt Service Reserve	-	-	-	-	-	-	-
Transfer to Construction Fund	(28,300,000)	(38,500,000)	(20,200,000)	(25,700,000)	(24,500,000)	(28,200,000)	(33,900,000)
Transfer To General Fund	(1,866,455)	(756,018)	(721,818)	(736,134)	(751,034)	(792,972)	(865,276)
Ending Balance (prior to interest)	\$ 15,010,838	\$ 14,986,314	\$ 15,028,455	\$ 15,007,131	\$ 15,027,601	\$ 14,996,655	\$ 14,961,220
Interest Income	54,359	54,093	54,124	54,161	54,160	54,141	54,022
Ending Balance	\$ 15,065,197	\$ 15,040,407	\$ 15,082,579	\$ 15,061,293	\$ 15,081,761	\$ 15,050,796	\$ 15,015,242

Description	2017	2018	2019	2020	2021	2022	2023
Water Utility Fund Balances							
Funds - 2							
Projected Flow of Funds - Construction Fund							
Construction Funds Available							
Beginning Balance	114,471,148	\$ 164,535,529	\$ 56,718,866	\$ 62,299,799	\$ 59,437,016	\$ 63,800,193	\$ 67,120,718
Transfer from Revenue Bond Proceeds	130,000,000	-	120,000,000	120,000,000	110,000,000	120,000,000	120,000,000
PENNVest Loan Proceeds	-	-	-	-	-	-	-
General Obligation Bonds	-	-	-	-	-	-	-
Non-City Sources	2,625,179	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-
Transfer from Residual Fund (Cash Financing)	7,900,000	11,000,000	5,700,000	5,300,000	4,900,000	6,600,000	8,700,000
Capital Account Deposit	9,157,337	9,468,686	14,685,932	15,185,254	15,701,553	16,235,405	16,787,409
Interest	501,310	397,542	213,849	218,733	221,428	235,234	245,786
Total Funds Available	\$ 264,654,973	\$ 185,401,757	\$ 197,318,647	\$ 203,003,785	\$ 190,259,997	\$ 206,870,833	\$ 212,853,913
Construction Funds Used							
Capital Improvements	\$ 94,461,657	\$ 128,682,891	\$ 133,818,848	\$ 139,131,560	\$ 125,242,765	\$ 130,441,393	\$ 135,822,272
Revenue Bond Issuance Expense	730,389	-	1,200,000	1,200,000	1,100,000	1,200,000	1,200,000
Revenue Bond Debt Service Reserve Requirement	4,927,399	-	-	3,235,209	117,038	8,108,722	6,158,935
State Revolving Fund Issuance Expense	-	-	-	-	-	-	-
General Obligation Bond Issuance Expense	-	-	-	-	-	-	-
Total Funds Utilized	\$ 100,119,444	\$ 128,682,891	\$ 135,018,848	\$ 143,566,770	\$ 126,459,804	\$ 139,750,115	\$ 143,181,206
Ending Balance	\$ 164,535,529	\$ 56,718,866	\$ 62,299,799	\$ 59,437,016	\$ 63,800,193	\$ 67,120,718	\$ 69,672,706
Balance Target	\$ 107,235,743	\$ 55,757,854	\$ 57,971,483	\$ 52,184,485	\$ 54,350,580	\$ 56,592,613	\$ 58,912,876
Ending Balance (Excluding Interest)	\$ 164,034,219	\$ 56,321,324	\$ 62,085,950	\$ 59,218,283	\$ 63,578,765	\$ 66,885,484	\$ 69,426,921
Interest Income	\$ 501,310	\$ 397,542	\$ 213,849	\$ 218,733	\$ 221,428	\$ 235,234	\$ 245,786
Projected Flow of Funds - Rate Stabilization							
Rate Stabilization Funds Available							
Beginning Balance	\$ 82,304,251	\$ 96,704,251	\$ 105,904,251	\$ 101,204,251	\$ 96,404,251	\$ 89,304,251	\$ 85,904,251
Deposit From (to) Operating Fund	14,400,000	9,200,000	(4,700,000)	(4,800,000)	(7,100,000)	(3,400,000)	1,160,000
Ending Balance	\$ 96,704,251	\$ 105,904,251	\$ 101,204,251	\$ 96,404,251	\$ 89,304,251	\$ 85,904,251	\$ 87,064,251
Interest Income	\$ 322,215	\$ 364,695	\$ 372,795	\$ 355,695	\$ 334,275	\$ 315,375	\$ 311,343
Projected Flow of Funds - Debt Service Reserve							
Debt Service Reserve Funds Available							
Beginning Balance	\$ 73,105,024	\$ 74,354,043	\$ 67,883,951	\$ 67,883,951	\$ 71,119,161	\$ 71,236,199	\$ 79,344,921
Transfer From Bond Proceeds	4,927,399	-	-	3,235,209	117,038	8,108,722	6,158,935
Transfer From Residual Fund	-	-	-	-	-	-	-
Debt Service Reserve Fund Release	(3,678,380)	(6,470,091)	-	-	-	-	-
Ending Balance	\$ 74,354,043	\$ 67,883,951	\$ 67,883,951	\$ 71,119,161	\$ 71,236,199	\$ 79,344,921	\$ 85,503,856
Interest Income	\$ 628,195	\$ 256,028	\$ 244,382	\$ 250,206	\$ 256,240	\$ 271,046	\$ 296,728

Description	2017	2018	2019	2020	2021	2022	2023
Projected Flow of Funds - Revenue Fund							
Revenue Funds Available							
Beginning Balance	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468
Existing Service Charge Revenues	271,123,921	280,852,001	272,455,482	270,409,193	268,152,367	266,037,871	263,948,103
Additional Service Charge Revenues	-	-	668,285	6,576,777	13,663,418	34,604,668	59,985,004
Other Operating Revenue	15,483,706	17,734,128	9,389,412	8,038,241	6,751,069	6,718,502	6,686,091
Interest Earnings	176,792	178,335	141,185	141,538	137,465	148,140	161,295
Construction Fund Interest Earnings	-	-	-	-	-	-	-
Debt Service Reserve Interest Earnings (above SCOOP)	-	-	-	-	-	-	-
Rate Stabilization Fund Interest Earnings	322,215	364,695	372,795	355,695	334,275	315,375	311,343
Transfer from Rate Stabilization Fund	-	-	4,700,000	4,800,000	7,100,000	3,400,000	-
Total Funds Available	\$ 318,724,102	\$ 330,746,628	\$ 319,344,627	\$ 321,938,913	\$ 327,756,062	\$ 342,842,024	\$ 362,709,305
Revenue Funds Used							
Total Operating Expense	183,030,050	187,998,682	195,179,820	201,352,433	207,024,875	212,717,719	219,336,572
Total Senior Debt Service	68,771,357	74,925,671	72,273,607	68,415,765	68,545,025	75,726,152	85,070,503
Total Subordinate Debt Service	-	-	-	-	-	-	-
Transfer to Escrow	3,678,380	6,470,091	-	-	-	-	-
Capital Account Deposit	9,157,337	9,468,686	14,685,932	15,185,254	15,701,553	16,235,405	16,787,409
Transfer to Rate Stabilization Fund	14,400,000	9,200,000	-	-	-	-	1,160,000
Transfer to Residual Fund	8,069,511	11,066,029	5,587,800	5,367,992	4,867,142	6,545,280	8,737,354
Total Funds Utilized	\$ 287,106,634	\$ 299,129,160	\$ 287,727,159	\$ 290,321,445	\$ 296,138,594	\$ 311,224,556	\$ 331,091,837
Ending Balance	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468	\$ 31,617,468
Projected Flow of Funds - Residual Fund							
Operating Funds Available							
Beginning Balance	\$ 6,140,621	\$ 6,332,542	\$ 6,421,488	\$ 6,332,203	\$ 6,423,113	\$ 6,413,319	\$ 6,381,589
Transfer from Revenue Fund	8,069,511	11,066,029	5,587,800	5,367,992	4,867,142	6,545,280	8,737,354
Debt Service Reserve Interest to fund Transfer to General Fund	628,195	256,028	244,382	250,206	256,240	271,046	296,728
Transfer to Debt Service Reserve	-	-	-	-	-	-	-
Transfer to Construction Fund	(7,900,000)	(11,000,000)	(5,700,000)	(5,300,000)	(4,900,000)	(6,600,000)	(8,700,000)
Transfer to General Fund	(628,195)	(256,028)	(244,382)	(250,206)	(256,240)	(271,046)	(296,728)
Ending Balance (prior to interest)	\$ 6,310,131	\$ 6,398,572	\$ 6,309,287	\$ 6,400,195	\$ 6,390,255	\$ 6,358,599	\$ 6,418,943
Interest Income	22,411	22,916	22,915	22,918	23,064	22,989	23,041
Ending Balance	\$ 6,332,542	\$ 6,421,488	\$ 6,332,203	\$ 6,423,113	\$ 6,413,319	\$ 6,381,589	\$ 6,441,984

Description	2017	2018	2019	2020	2021	2022	2023
Wastewater Utility Fund Balances							
Funds - 3							
Projected Flow of Funds - Construction Fund							
Construction Funds Available							
Beginning Balance	168,668,671	\$ 227,575,180	\$ 79,609,934	\$ 84,399,542	\$ 96,067,174	\$ 107,314,847	\$ 110,062,105
Transfer from Revenue Bond Proceeds	183,650,523	-	165,000,000	175,000,000	195,000,000	220,000,000	215,000,000
PENNVest Loan Proceeds	-	-	-	-	-	-	-
General Obligation Bonds	-	-	-	-	-	-	-
Non-City Sources	4,530,114	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-
Transfer from Residual Fund (Cash Financing)	20,400,000	27,500,000	14,500,000	20,400,000	19,600,000	21,600,000	25,200,000
Capital Account Deposit	13,144,993	13,591,923	21,081,073	21,797,829	22,538,955	23,305,280	24,097,659
Interest	711,957	551,940	294,687	324,256	365,430	390,575	395,135
Total Funds Available	\$ 391,106,259	\$ 269,219,043	\$ 280,485,693	\$ 301,921,627	\$ 333,571,559	\$ 372,610,702	\$ 374,754,899
Construction Funds Used							
Capital Improvements	\$ 155,538,343	\$ 189,609,109	\$ 194,436,152	\$ 199,386,440	\$ 224,099,235	\$ 245,482,607	\$ 251,717,728
Revenue Bond Issuance Expense	1,031,818	-	1,650,000	1,750,000	1,950,000	2,200,000	2,150,000
Revenue Bond Debt Service Reserve Requirement	6,960,918	-	-	4,718,014	207,477	14,865,990	11,034,758
State Revolving Fund Issuance Expense	-	-	-	-	-	-	-
General Obligation Bond Issuance Expense	-	-	-	-	-	-	-
Total Funds Utilized	\$ 163,531,079	\$ 189,609,109	\$ 196,086,152	\$ 205,854,454	\$ 226,256,712	\$ 262,548,597	\$ 264,902,487
Ending Balance	\$ 227,575,180	\$ 79,609,934	\$ 84,399,542	\$ 96,067,174	\$ 107,314,847	\$ 110,062,105	\$ 109,852,412
Balance Target	\$ 158,007,591	\$ 81,015,063	\$ 83,077,683	\$ 93,374,681	\$ 102,284,420	\$ 104,882,387	\$ 107,546,290
Ending Balance (Excluding Interest)	\$ 226,863,223	\$ 79,057,994	\$ 84,104,855	\$ 95,742,917	\$ 106,949,417	\$ 109,671,529	\$ 109,457,278
Interest Income	\$ 711,957	\$ 551,940	\$ 294,687	\$ 324,256	\$ 365,430	\$ 390,575	\$ 395,135
Projected Flow of Funds - Rate Stabilization							
Rate Stabilization Funds Available							
Beginning Balance	\$ 123,456,377	\$ 104,493,377	\$ 83,093,377	\$ 76,393,377	\$ 59,993,377	\$ 55,993,377	\$ 55,493,377
Deposit From (to) Operating Fund	(18,963,000)	(21,400,000)	(6,700,000)	(16,400,000)	(4,000,000)	(500,000)	(1,860,000)
Ending Balance	\$ 104,493,377	\$ 83,093,377	\$ 76,393,377	\$ 59,993,377	\$ 55,993,377	\$ 55,493,377	\$ 53,633,377
Interest Income	\$ 410,310	\$ 337,656	\$ 287,076	\$ 245,496	\$ 208,776	\$ 200,676	\$ 196,428
Projected Flow of Funds - Debt Service Reserve							
Debt Service Reserve Funds Available							
Beginning Balance	\$ 145,511,690	\$ 145,150,988	\$ 132,621,079	\$ 132,621,079	\$ 137,339,093	\$ 137,546,570	\$ 152,412,560
Transfer From Bond Proceeds	6,960,918	-	-	4,718,014	207,477	14,865,990	11,034,758
Transfer From Residual Fund	-	-	-	-	-	-	-
Debt Service Reserve Funds Release	(7,321,620)	(12,529,909)	-	-	-	-	-
Ending Balance	\$ 145,150,988	\$ 132,621,079	\$ 132,621,079	\$ 137,339,093	\$ 137,546,570	\$ 152,412,560	\$ 163,447,319
Interest Income	\$ 1,238,260	\$ 499,990	\$ 477,436	\$ 485,928	\$ 494,794	\$ 521,926	\$ 568,548

Description	2017	2018	2019	2020	2021	2022	2023
Projected Flow of Funds - Revenue Fund							
Revenue Funds Available							
Beginning Balance	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202
Existing Service Charge Revenues	413,731,599	430,817,627	431,108,149	428,705,475	425,776,406	422,912,006	420,084,328
Additional Service Charge Revenues	-	-	8,535,432	30,742,374	56,272,606	83,330,987	111,585,462
Other Operating Revenue	16,803,011	21,913,069	6,797,375	4,969,277	3,274,407	3,229,161	3,184,441
Interest Earnings	208,797	227,865	222,384	216,470	239,007	250,248	255,540
Construction Fund Interest Earnings	-	-	-	-	-	-	-
Debt Service Reserve Interest Earnings (above SCOOP)	-	-	-	-	-	-	-
Rate Stabilization Fund Interest Earnings	410,310	337,656	287,076	245,496	208,776	200,676	196,428
Transfer from Rate Stabilization Fund	18,963,000	21,400,000	6,700,000	16,400,000	4,000,000	500,000	1,860,000
Total Funds Available	\$ 497,542,919	\$ 522,122,419	\$ 501,076,617	\$ 528,705,294	\$ 537,197,404	\$ 557,849,279	\$ 584,592,402
Revenue Funds Used							
Total Operating Expense	272,711,600	276,119,058	290,664,073	299,182,214	307,395,336	316,053,744	324,114,799
Total Senior Debt Service	136,885,756	145,100,239	127,305,020	140,042,489	140,237,745	149,494,440	163,880,672
Total Subordinate Debt Service	-	-	-	-	-	-	-
Transfer to Escrow	7,321,620	12,529,909	-	-	-	-	-
Capital Account Deposit	13,144,993	13,591,923	21,081,073	21,797,829	22,538,955	23,305,280	24,097,659
Transfer to Rate Stabilization Fund	-	-	-	-	-	-	-
Transfer to Residual Fund	20,052,747	27,355,088	14,600,249	20,256,560	19,599,166	21,569,614	25,073,070
Total Funds Utilized	\$ 450,116,717	\$ 474,696,217	\$ 453,650,415	\$ 481,279,092	\$ 489,771,202	\$ 510,423,077	\$ 537,166,200
Ending Balance	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202	\$ 47,426,202
Projected Flow of Funds - Residual Fund							
Operating Funds Available							
Beginning Balance	\$ 9,047,959	\$ 8,732,654	\$ 8,618,919	\$ 8,750,376	\$ 8,638,180	\$ 8,668,442	\$ 8,669,207
Transfer from Revenue Fund	20,052,747	27,355,088	14,600,249	20,256,560	19,599,166	21,569,614	25,073,070
Interest Earnings on Debt Service Reserve for Transfer to General Fund	1,238,260	499,990	477,436	485,928	494,794	521,926	568,548
Transfer to Debt Service Reserve	-	-	-	-	-	-	-
Transfer to Construction Fund	(20,400,000)	(27,500,000)	(14,500,000)	(20,400,000)	(19,600,000)	(21,600,000)	(25,200,000)
Transfer to General Fund	(1,238,260)	(499,990)	(477,436)	(485,928)	(494,794)	(521,926)	(568,548)
Ending Balance (prior to interest)	\$ 8,700,707	\$ 8,587,742	\$ 8,719,168	\$ 8,606,936	\$ 8,637,346	\$ 8,638,056	\$ 8,542,277
Interest Income	\$ 31,948	\$ 31,177	\$ 31,209	\$ 31,243	\$ 31,096	\$ 31,152	\$ 30,981
Ending Balance	\$ 8,732,654	\$ 8,618,919	\$ 8,750,376	\$ 8,638,180	\$ 8,668,442	\$ 8,669,207	\$ 8,573,258

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CF

Index	Description	Table
CF	Cashflow Worksheet	
CF Data - 1	Water System Cash Flow	TABLE W-6
CF Data - 2	Wastewater System Cash Flow	TABLE WW-6
CF Data - 3	Combined System Cash Flow	TABLE C-1 and TABLE C-2

2017 2018 2019 2020 2021 2022 2023

Water System Cash Flow

CF Data - 1

Other Income

Other Operating Revenue	\$ 15,484	\$ 17,734	\$ 9,389	\$ 8,038	\$ 6,751	\$ 6,719	\$ 6,686
Build America Bond Reimbursement							
Construction Fund Interest Income	-	-	-	-	-	-	-
Debt Reserve Fund Interest Income	-	-	-	-	-	-	-
Operating Fund Interest Income	177	178	141	142	137	148	161
Rate Stabilization Interest Income	322	365	373	356	334	315	311

Project Revenues	\$ 287,107	\$ 299,129	\$ 283,027	\$ 285,521	\$ 289,039	\$ 307,825	\$ 331,092
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Operating Expense

Water Operations	\$ (98,678)	\$ (99,065)	\$ (102,580)	\$ (105,440)	\$ (108,137)	\$ (110,893)	\$ (113,730)
Direct Interdepartmental Charges	(72,023)	(76,329)	(79,172)	(81,740)	(83,895)	(86,168)	(88,800)
Water Treatment Plant Sludge	(12,329)	(12,605)	(13,428)	(14,172)	(14,993)	(15,657)	(16,807)
Total Operating Expense	\$ (183,030)	\$ (187,999)	\$ (195,180)	\$ (201,352)	\$ (207,025)	\$ (212,718)	\$ (219,337)

Net Revenues

Transfer from/(to) Rate Stabilization Fund	\$ (14,400)	\$ (9,200)	\$ 4,700	\$ 4,800	\$ 7,100	\$ 3,400	\$ (1,160)
Net Revenues	\$ 89,677	\$ 101,930	\$ 92,547	\$ 88,969	\$ 89,114	\$ 98,507	\$ 110,595

2017 2018 2019 2020 2021 2022 2023

Water System Cash Flow

CF Data - 1

	2017	2018	2019	2020	2021	2022	2023
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	\$ (63,516)	\$ (61,273)	\$ (45,528)	\$ (33,563)	\$ (32,156)	\$ (30,907)	\$ (30,621)
Pennvest Parity Bonds	(5,256)	(5,401)	(5,427)	(5,351)	(5,351)	(5,351)	(5,351)
Projected Future Bonds	-	(8,252)	(21,318)	(29,501)	(31,038)	(39,468)	(49,098)
Total Senior Debt Service	\$ (68,771)	\$ (74,926)	\$ (72,274)	\$ (68,416)	\$ (68,545)	\$ (75,726)	\$ (85,071)
Subordinate Debt Service							
Outstanding General Obligation Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pennvest Subordinate Bonds	-	-	-	-	-	-	-
Projected Future Bonds	-	-	-	-	-	-	-
Total Subordinate Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfer to Escrow	(3,678)	(6,470)	-	-	-	-	-
Total Debt Service on Bonds	(72,450)	(81,396)	(72,274)	(68,416)	(68,545)	(75,726)	(85,071)
Capital Account Deposit	\$ (9,157)	\$ (9,469)	\$ (14,686)	\$ (15,185)	\$ (15,702)	\$ (16,235)	\$ (16,787)
End of Year Balance (Transfer to Residual Fund)	\$ 8,070	\$ 11,066	\$ 5,588	\$ 5,368	\$ 4,867	\$ 6,545	\$ 8,737

2017 2018 2019 2020 2021 2022 2023

Water System Cash Flow

CF Data - 1

Residual Fund

Beginning Balance	\$ 6,141	\$ 6,333	\$ 6,421	\$ 6,332	\$ 6,423	\$ 6,413	\$ 6,382
Plus:							
End of Year Revenue Fund Balance	8,070	11,066	5,588	5,368	4,867	6,545	8,737
Deposit for Transfer to City General Fund	628	256	244	250	256	271	297
Interest Income	22	23	23	23	23	23	23
Less:							
Transfer to Construction Fund	(7,900)	(11,000)	(5,700)	(5,300)	(4,900)	(6,600)	(8,700)
Transfer to City General Fund	(628)	(256)	(244)	(250)	(256)	(271)	(297)
Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
Ending Balance	\$ 6,333	\$ 6,421	\$ 6,332	\$ 6,423	\$ 6,413	\$ 6,382	\$ 6,442

Rate Stabilization Fund

Beginning Balance	\$ 82,304	\$ 96,704	\$ 105,904	\$ 101,204	\$ 96,404	\$ 89,304	\$ 85,904
Transfer to/from Revenue Fund	14,400	9,200	(4,700)	(4,800)	(7,100)	(3,400)	1,160
Ending Balance	\$ 96,704	\$ 105,904	\$ 101,204	\$ 96,404	\$ 89,304	\$ 85,904	\$ 87,064

Debt Service Coverage

Senior Debt Service Excluding Escrow	\$ 68,771	\$ 74,926	\$ 72,274	\$ 68,416	\$ 68,545	\$ 75,726	\$ 85,071
Net Revenues for Coverage	\$ 89,677	\$ 101,930	\$ 92,547	\$ 88,969	\$ 89,114	\$ 98,507	\$ 110,595
Total Senior Debt Service Coverage	1.30	1.36	1.28	1.30	1.30	1.30	1.30
Total Senior Debt Service Coverage - Current Revenue	1.30	1.36	1.21	1.23	1.19	1.25	1.30
Total Debt Service Coverage	1.15	1.20	1.06	1.06	1.05	1.07	1.08

2017 2018 2019 2020 2021 2022 2023

Wastewater System Cash Flow

CF Data - 2

Other Income

Other Operating Revenue	\$ 16,803	\$ 21,913	\$ 6,797	\$ 4,969	\$ 3,274	\$ 3,229	\$ 3,184
Build America Bond Reimbursement							
Construction Fund Interest Income	-	-	-	-	-	-	-
Debt Reserve Fund Interest Income	-	-	-	-	-	-	-
Operating Fund Interest Income	209	228	222	216	239	250	256
Rate Stabilization Interest Income	410	338	287	245	209	201	196

Project Revenues	\$ 431,154	\$ 453,296	\$ 446,950	\$ 464,879	\$ 485,771	\$ 509,923	\$ 535,306
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Operating Expense

Wastewater Operations	\$ (176,990)	\$ (177,994)	(188,776)	\$ (193,893)	\$ (199,409)	\$ (205,044)	\$ (210,415)
Direct Interdepartmental Charges	(108,050)	(110,730)	(115,316)	(119,462)	(122,980)	(126,667)	(130,508)
Water Treatment Plant Sludge	12,329	12,605	13,428	14,172	14,993	15,657	16,807
Total Operating Expense	\$ (272,712)	\$ (276,119)	\$ (290,664)	\$ (299,182)	\$ (307,395)	\$ (316,054)	\$ (324,115)

Net Revenues

Transfer from Rate Stabilization Fund	\$ 18,963	\$ 21,400	\$ 6,700	\$ 16,400	\$ 4,000	\$ 500	\$ 1,860
Net Revenues after Operations	\$ 177,405	\$ 198,577	\$ 162,986	\$ 182,097	\$ 182,376	\$ 194,369	\$ 213,051

2017 2018 2019 2020 2021 2022 2023

Wastewater System Cash Flow

CF Data - 2

	2017	2018	2019	2020	2021	2022	2023
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	\$ (130,325)	\$ (124,483)	\$ (88,436)	\$ (89,477)	\$ (83,735)	\$ (78,322)	\$ (74,688)
Pennvest Parity Bonds	(6,561)	(6,099)	(6,255)	(6,284)	(6,284)	(6,284)	(6,284)
Projected Future Bonds	-	(14,518)	(32,614)	(44,281)	(50,219)	(64,888)	(82,909)
Total Senior Debt Service	\$ (136,886)	\$ (145,100)	\$ (127,305)	\$ (140,042)	\$ (140,238)	\$ (149,494)	\$ (163,881)
Subordinate Debt Service							
Outstanding General Obligation Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pennvest Subordinate Bonds	-	-	-	-	-	-	-
Projected Future Bonds	-	-	-	-	-	-	-
Total Subordinate Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfer to Escrow	(7,322)	(12,530)	-	-	-	-	-
Total Debt Service on Bonds	(144,207)	(157,630)	(127,305)	(140,042)	(140,238)	(149,494)	(163,881)
Capital Account Deposit	\$ (13,145)	\$ (13,592)	\$ (21,081)	\$ (21,798)	\$ (22,539)	\$ (23,305)	\$ (24,098)
End of Year Balance (Transfer to Residual Fund)	\$ 20,053	\$ 27,355	\$ 14,600	\$ 20,257	\$ 19,599	\$ 21,570	\$ 25,073

2017 2018 2019 2020 2021 2022 2023

Wastewater System Cash Flow CF Data - 2

Residual Fund

Beginning Balance	\$ 9,048	\$ 8,733	\$ 8,619	\$ 8,750	\$ 8,638	\$ 8,668	\$ 8,669
Plus:							
End of Year Revenue Fund Balance	20,053	27,355	14,600	20,257	19,599	21,570	25,073
Deposit for Transfer to City General Fund	1,238	500	477	486	495	522	569
Interest Income	32	31	31	31	31	31	31
Less:							
Transfer to Construction Fund	(20,400)	(27,500)	(14,500)	(20,400)	(19,600)	(21,600)	(25,200)
Transfer to City General Fund	(1,238)	(500)	(477)	(486)	(495)	(522)	(569)
Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
Ending Balance	<u>\$ 8,733</u>	<u>\$ 8,619</u>	<u>\$ 8,750</u>	<u>\$ 8,638</u>	<u>\$ 8,668</u>	<u>\$ 8,669</u>	<u>\$ 8,573</u>

Rate Stabilization Fund

Beginning Balance	\$ 123,456	\$ 104,493	\$ 83,093	\$ 76,393	\$ 59,993	\$ 55,993	\$ 55,493
Transfer to/from Revenue Fund	(18,963)	(21,400)	(6,700)	(16,400)	(4,000)	(500)	(1,860)
Ending Balance	<u>\$ 104,493</u>	<u>\$ 83,093</u>	<u>\$ 76,393</u>	<u>\$ 59,993</u>	<u>\$ 55,993</u>	<u>\$ 55,493</u>	<u>\$ 53,633</u>

Debt Service Coverage

Senior Debt Service Excluding Escrow	\$ 136,886	\$ 145,100	\$ 127,305	\$ 140,042	\$ 140,238	\$ 149,494	\$ 163,881
Net Revenues for Coverage	\$ 177,405	\$ 198,577	\$ 162,986	\$ 182,097	\$ 182,376	\$ 194,369	\$ 213,051
Total Senior Debt Service Coverage	1.29	1.36	1.28	1.30	1.30	1.30	1.30
Total Senior Debt Service Coverage - Current Revenue	1.15	1.22	1.22	1.18	1.27	1.29	1.28
Total Debt Service Coverage	1.18	1.25	1.09	1.12	1.12	1.12	1.13

2017 2018 2019 2020 2021 2022 2023

Combined System Cash Flow

CF Data - 3

Other Income

Other Operating Revenue	\$ 32,287	\$ 39,647	\$ 16,187	\$ 13,008	\$ 10,025	\$ 9,948	\$ 9,871
Build America Bond Reimbursement	-	-	-	-	-	-	-
Construction Fund Interest Income	-	-	-	-	-	-	-
Debt Reserve Fund Interest Income	-	-	-	-	-	-	-
Operating Fund Interest Income	386	406	364	358	376	398	417
Rate Stabilization Interest Income	733	702	660	601	543	516	508

Project Revenues

	\$ 718,260	\$ 752,425	\$ 729,978	\$ 750,401	\$ 774,810	\$ 817,748	\$ 866,398
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Operating Expense

Water & Wastewater Operations	\$ (275,668)	\$ (277,059)	\$ (291,356)	\$ (299,333)	\$ (307,546)	\$ (315,937)	\$ (324,144)
Direct Interdepartmental Charges	(180,073)	(187,059)	(194,488)	(201,202)	(206,874)	(212,835)	(219,307)
Water Treatment Plant Sludge	-	-	-	-	-	-	-
Total Operating Expense	\$ (455,742)	\$ (464,118)	\$ (485,844)	\$ (500,535)	\$ (514,420)	\$ (528,771)	\$ (543,451)

Net Revenues

Transfer from Rate Stabilization Fund	4,563	12,200	11,400	21,200	11,100	3,900	700
Net Revenues	\$ 267,082	\$ 300,508	\$ 255,534	\$ 271,066	\$ 271,490	\$ 292,876	\$ 323,647

2017 2018 2019 2020 2021 2022 2023

Combined System Cash Flow

CF Data - 3

	2017	2018	2019	2020	2021	2022	2023
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Revenue Bonds	\$ (193,841)	\$ (185,756)	\$ (133,964)	\$ (123,040)	\$ (115,891)	\$ (109,229)	\$ (105,309)
Pennvest Parity Bonds	(11,816)	(11,500)	(11,682)	(11,636)	(11,636)	(11,636)	(11,636)
Projected Future Revenue Bonds	-	(22,770)	(53,933)	(73,782)	(81,257)	(104,356)	(132,006)
Total Senior Debt Service	\$ (205,657)	\$ (220,026)	\$ (199,579)	\$ (208,458)	\$ (208,783)	\$ (225,221)	\$ (248,951)
Subordinate Debt Service							
Outstanding General Obligation Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pennvest Subordinate Bonds	-	-	-	-	-	-	-
Projected Future Bonds	-	-	-	-	-	-	-
Total Subordinate Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfer to Escrow	(11,000)	(19,000)	-	-	-	-	-
Total Debt Service on Bonds	\$ (216,657)	\$ (239,026)	\$ (199,579)	\$ (208,458)	\$ (208,783)	\$ (225,221)	\$ (248,951)
Capital Account Deposit	\$ (22,302)	\$ (23,061)	\$ (35,767)	\$ (36,983)	\$ (38,241)	\$ (39,541)	\$ (40,885)
End of Year Balance (Transfer to Residual Fund)	\$ 28,122	\$ 38,421	\$ 20,188	\$ 25,625	\$ 24,466	\$ 28,115	\$ 33,810

2017 2018 2019 2020 2021 2022 2023

Combined System Cash Flow

CF Data - 3

Residual Fund

Beginning Balance	\$ 15,189	\$ 15,065	\$ 15,040	\$ 15,083	\$ 15,061	\$ 15,082	\$ 15,051
Plus:							
End of Year Revenue Fund Balance	28,122	38,421	20,188	25,625	24,466	28,115	33,810
Deposit for Transfer to City General Fund	1,866	756	722	736	751	793	865
Interest Income	54	54	54	54	54	54	54
Less:							
Transfer to Construction Fund	(28,300)	(38,500)	(20,200)	(25,700)	(24,500)	(28,200)	(33,900)
Transfer to City General Fund	(1,866)	(756)	(722)	(736)	(751)	(793)	(865)
Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
Ending Balance	\$ 15,065	\$ 15,040	\$ 15,083	\$ 15,061	\$ 15,082	\$ 15,051	\$ 15,015

Rate Stabilization Fund

Beginning Balance	\$ 205,761	\$ 201,198	\$ 188,998	\$ 177,598	\$ 156,398	\$ 145,298	\$ 141,398
Transfer to/from Revenue Fund	(4,563)	(12,200)	(11,400)	(21,200)	(11,100)	(3,900)	(700)
Ending Balance	\$ 201,198	\$ 188,998	\$ 177,598	\$ 156,398	\$ 145,298	\$ 141,398	\$ 140,698

Debt Service Coverage

Senior Debt Service Excluding Escrow	\$ 205,657	\$ 220,026	\$ 199,579	\$ 208,458	\$ 208,783	\$ 225,221	\$ 248,951
Net Revenues for Coverage	\$ 267,082	\$ 300,508	\$ 255,534	\$ 271,066	\$ 271,490	\$ 292,876	\$ 323,647
Total Senior Debt Service Coverage	1.29	1.36	1.28	1.30	1.30	1.30	1.30
Total Senior Debt Service Coverage - Current Revenue	1.27	1.31	1.22	1.19	1.24	1.28	1.29
Total Debt Service Coverage	1.17	1.23	1.08	1.10	1.09	1.10	1.11

FINPLAN17.XLS

COST OF SERVICE

Index	Description	Table
COST OF SERVICE		
Cost of Service Worksheet		
Cost of Service - 1	Water System Cost of Service	TABLE W-7
Cost of Service - 2	Wastewater System Cost of Service	TABLE WW-7
Cost of Service - 3	Combined System Cost of Service	

2017 2018 2019 2020 2021 2022 2023

Water System Cost of Service

Cost of Service - 1

Operating Expenses

Operating Expense	\$ 98,678	\$ 99,065	\$ 102,580	\$ 105,440	\$ 108,137	\$ 110,893	\$ 113,730
Direct Interdepartmental Charges	72,023	76,329	79,172	81,740	83,895	86,168	88,800
Water Treatment Plant Sludge	12,329	12,605	13,428	14,172	14,993	15,657	16,807
Subtotal	\$ 183,030	\$ 187,999	\$ 195,180	\$ 201,352	\$ 207,025	\$ 212,718	\$ 219,337
Residual Fund Transfer	5,581	7,460	3,866	3,793	3,459	4,570	5,967
Rate Stabilization Fund Transfer	9,959	6,202	(3,251)	(3,392)	(5,046)	(2,374)	792
Total	\$ 198,570	\$ 201,661	\$ 195,795	\$ 201,753	\$ 205,438	\$ 214,914	\$ 226,096
Other Income							
Other Operating Revenue	\$ (11,805)	\$ (11,264)	\$ (9,389)	\$ (8,038)	\$ (6,751)	\$ (6,719)	\$ (6,686)
Interest	\$ (345)	\$ (366)	\$ (356)	\$ (351)	\$ (335)	\$ (324)	\$ (323)
Net Revenue Requirement - Operating Expense	\$ 186,420	\$ 190,031	\$ 186,049	\$ 193,364	\$ 198,352	\$ 207,871	\$ 219,086

2017 2018 2019 2020 2021 2022 2023

Water System Cost of Service

Cost of Service - 1

Capital Expenses

Debt Service

Senior Debt Service

Revenue Bonds

Outstanding Bonds

Pennvest Parity Bonds

Projected Future Bonds

Transfer to Escrow

Subordinate Debt Service

Outstanding General Obligation Bonds

Pennvest Subordinate Bonds

Projected Future Bonds

Capital Account Deposit

Subtotal

Residual Fund Transfer

Rate Stabilization Fund Transfer

Total

Other Income

Other Operating Revenue

Debt Service Reserve Fund Release

Interest

Net Revenue Requirement - Capital Expense

Total Net Revenue Requirement

Revenue CHECK

	\$ 63,516	\$ 61,273	\$ 45,528	\$ 33,563	\$ 32,156	\$ 30,907	\$ 30,621
	5,256	5,401	5,427	5,351	5,351	5,351	5,351
	-	8,252	21,318	29,501	31,038	39,468	49,098
	3,678	6,470	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	9,157	9,469	14,686	15,185	15,702	16,235	16,787
	\$ 81,607	\$ 90,864	\$ 86,960	\$ 83,601	\$ 84,247	\$ 91,962	\$ 101,858
	2,489	3,606	1,722	1,575	1,408	1,975	2,770
	4,441	2,998	(1,449)	(1,408)	(2,054)	(1,026)	368
	\$ 88,537	\$ 97,468	\$ 87,232	\$ 83,768	\$ 83,601	\$ 92,911	\$ 104,996
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	(3,678)	(6,470)	-	-	-	-	-
	(154)	(177)	(158)	(146)	(137)	(140)	(150)
	\$ 84,704	\$ 90,821	\$ 87,074	\$ 83,622	\$ 83,464	\$ 92,771	\$ 104,847
	\$ 271,124	\$ 280,852	\$ 273,124	\$ 276,986	\$ 281,816	\$ 300,643	\$ 323,933
	\$ 271,124	\$ 280,852	\$ 273,124	\$ 276,986	\$ 281,816	\$ 300,643	\$ 323,933

2017 2018 2019 2020 2021 2022 2023

Wastewater System Cost of Service

Cost of Service - 2

Operating Expenses

Operating Expense	\$ 176,990	\$ 177,994	\$ 188,776	\$ 193,893	\$ 199,409	\$ 205,044	\$ 210,415
Direct Interdepartmental Charges	108,050	110,730	115,316	119,462	122,980	126,667	130,508
Water Treatment Plant Sludge	(8,608)	(8,597)	(9,661)	(10,044)	(10,716)	(11,086)	(11,786)
Total Operating Expense	\$ 276,432	\$ 280,127	\$ 294,431	\$ 303,310	\$ 311,673	\$ 320,625	\$ 329,137
Residual Fund Transfer	12,889	17,130	9,791	13,327	12,992	14,147	16,115
Rate Stabilization Fund Transfer	(12,189)	(13,401)	(4,493)	(10,790)	(2,652)	(328)	(1,195)
Total	\$ 277,132	\$ 283,856	\$ 299,729	\$ 305,847	\$ 322,013	\$ 334,444	\$ 344,057
Other Income							
Other Operating Revenue	\$ (9,481)	\$ (9,383)	\$ (6,797)	\$ (4,969)	\$ (3,274)	\$ (3,229)	\$ (3,184)
Interest	\$ (398)	\$ (356)	\$ (344)	\$ (305)	\$ (300)	\$ (300)	\$ (295)
Net Revenue Requirement - Operating Expense	\$ 267,253	\$ 274,117	\$ 292,588	\$ 300,573	\$ 318,438	\$ 330,915	\$ 340,577

2017 2018 2019 2020 2021 2022 2023

Wastewater System Cost of Service **Cost of Service - 2**

Capital Expenses

Debt Service

Senior Debt Service

Revenue Bonds

Outstanding Bonds \$ 130,325 \$ 124,483 \$ 88,436 \$ 89,477 \$ 83,735 \$ 78,322 \$ 74,688

Pennvest Parity Bonds 6,561 6,099 6,255 6,284 6,284 6,284 6,284

Projected Future Bonds - 14,518 32,614 44,281 50,219 64,888 82,909

Transfer to Escrow 7,322 12,530 - - - - -

Subordinate Debt Service

Outstanding General Obligation Bonds \$ - \$ - \$ - \$ - \$ - \$ - \$ -

Pennvest Subordinate Bonds - - - - - - -

Projected Future Bonds - - - - - - -

Capital Account Deposit \$ 13,145 \$ 13,592 \$ 21,081 \$ 21,798 \$ 22,539 \$ 23,305 \$ 24,098

Water Treatment Plant Sludge - Capital Component \$ (3,720) \$ (4,008) \$ (3,767) \$ (4,128) \$ (4,277) \$ (4,571) \$ (5,022)

Subtotal \$ 153,632 \$ 167,214 \$ 144,619 \$ 157,712 \$ 158,499 \$ 168,228 \$ 182,957

Residual Fund Transfer 7,164 10,225 4,809 6,930 6,607 7,423 8,958

Rate Stabilization Fund Transfer (6,774) (7,999) (2,207) (5,610) (1,348) (172) (665)

Total \$ 154,022 \$ 169,440 \$ 147,221 \$ 159,032 \$ 163,758 \$ 175,479 \$ 191,250

Other Income

Other Operating Revenue \$ - \$ - \$ - \$ - \$ - \$ - \$ -

Debt Service Reserve Fund Release (7,322) (12,530) - - - - -

Interest (221) (210) (165) (157) (148) (151) (157)

Net Revenue Requirement - Capital Expense \$ 146,479 \$ 156,701 \$ 147,056 \$ 158,875 \$ 163,611 \$ 175,328 \$ 191,093

Total Net Revenue Requirement \$ 413,732 \$ 430,818 \$ 439,644 \$ 459,448 \$ 482,049 \$ 506,243 \$ 531,670

Revenue CHECK \$ 413,732 \$ 430,818 \$ 439,644 \$ 459,448 \$ 482,049 \$ 506,243 \$ 531,670

	2017	2018	2019	2020	2021	2022	2023
Combined System Cost of Service							
Cost of Service - 3							
Operating Expenses							
Operating Expense	\$ 275,668	\$ 277,059	\$ 291,356	\$ 299,333	\$ 307,546	\$ 315,937	\$ 324,144
Direct Interdepartmental Charges	\$ 180,073	\$ 187,059	\$ 194,488	\$ 201,202	\$ 206,874	\$ 212,835	\$ 219,307
Water Treatment Plant Sludge	\$ 3,720	\$ 4,008	\$ 3,767	\$ 4,128	\$ 4,277	\$ 4,571	\$ 5,022
Subtotal	\$ 459,462	\$ 468,125	\$ 489,611	\$ 504,663	\$ 518,698	\$ 533,343	\$ 548,473
Residual Fund Transfer	18,470	24,590	13,657	17,120	16,451	18,717	22,082
Rate Stabilization Fund Transfer	(2,230)	(7,199)	(7,744)	(14,182)	(7,698)	(2,702)	(403)
Total	\$ 475,702	\$ 485,516	\$ 495,524	\$ 507,601	\$ 527,451	\$ 549,358	\$ 570,152
Other Income							
Other Operating Revenue	\$ (21,287)	\$ (20,647)	\$ (16,187)	\$ (13,008)	\$ (10,025)	\$ (9,948)	\$ (9,871)
Interest	\$ (743)	\$ (722)	\$ (700)	\$ (656)	\$ (635)	\$ (624)	\$ (618)
Net Revenue Requirement - Operating Expense	\$ 453,672	\$ 464,147	\$ 478,637	\$ 493,937	\$ 516,790	\$ 538,786	\$ 559,664

2017 2018 2019 2020 2021 2022 2023

Combined System Cost of Service

Cost of Service - 3

Capital Expenses

Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	\$ 193,841	\$ 185,756	\$ 133,964	\$ 123,040	\$ 115,891	\$ 109,229	\$ 105,309
Pennvest Parity Bonds	11,816	11,500	11,682	11,636	11,636	11,636	11,636
Projected Future Bonds	-	22,770	53,933	73,782	81,257	104,356	132,006
Transfer to Escrow	11,000	19,000	-	-	-	-	-
Subordinate Debt Service							
Outstanding General Obligation Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pennvest Subordinate Bonds							
Projected Future Bonds	-	-	-	-	-	-	-
Capital Account Deposit	\$ 22,302	\$ 23,061	\$ 35,767	\$ 36,983	\$ 38,241	\$ 39,541	\$ 40,885
Water Treatment Plant Sludge - Capital Component	\$ (3,720)	\$ (4,008)	\$ (3,767)	\$ (4,128)	\$ (4,277)	\$ (4,571)	\$ (5,022)
Subtotal	\$ 235,239	\$ 258,079	\$ 231,578	\$ 241,313	\$ 242,746	\$ 260,190	\$ 284,814
Residual Fund Transfer	9,652	13,831	6,531	8,505	8,015	9,398	11,728
Rate Stabilization Fund Transfer	(2,333)	(5,001)	(3,656)	(7,018)	(3,402)	(1,198)	(297)
Total	\$ 242,558	\$ 266,909	\$ 234,453	\$ 242,800	\$ 247,359	\$ 268,390	\$ 296,246
Other Income							
Other Operating Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest	(375)	(387)	(323)	(303)	(285)	(290)	(307)
Net Revenue Requirement - Capital Expense	\$ 242,183	\$ 266,522	\$ 234,130	\$ 242,496	\$ 247,075	\$ 268,099	\$ 295,939
Total Net Revenue Requirement	\$ 695,856	\$ 730,670	\$ 712,767	\$ 736,434	\$ 763,865	\$ 806,886	\$ 855,603
Revenue CHECK	\$ 684,856	\$ 711,670	\$ 712,767	\$ 736,434	\$ 763,865	\$ 806,886	\$ 855,603

SCOS17_19.XLS

INDEX

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
UnitsInd - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-1

The "Units" worksheet develops the units of service for retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

Range	Description	Page Number	Table
UnitsInd	Index	Units-1	
CSUNITS	OC Contract Service Sewer Units	Units-2	TABLE WH - 3
UNTSER	Units of Sewer Service	Units-3	
TRMTUTS	Treatment Plant Units	Units-4	
PSUTS	Pumping Stations Units	Units-5	
SWRUTS	Sewer Units	Units-6	TABLE WW - 8
TPFS	Trmt Plant Flows and Strengths	Units-7	
CCSF	Customer Class Sanitary Flows	Units-8	
RTLUNT	Retail Sewer Units	Units-9	
BILLTAB	FY 2016 Bill Distribution & TY Number of Bills	Units-10	
TYBILLS	FY 2019 Test Year Sewer Bills	Units-11	
TYMTRS	FY 2019 Test Year Equiv. Sewer Meters	Units-12	
TYUOS	FY 2019 Units of Wastewater Service	Units-13	
CCAS	Contract Customers Average Strengths	Units-14	TABLE WH - 4
RATIOS	Equiv. Bill and Meter Ratios	Units-15	
CNTRCTUNI	Contract Maximum Limit:	Units-16	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PltDesInd - Index	P.N. 135647.0100	February 11, February 11, 2018 9:00 a.m.					PltDes-1

The "PltDes" worksheet contains wastewater plant design data for the Northeast, Southwest, and Southeast treatment plants, and historical treatment plants influent flows and strengths.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
PltDesInd	Index	PltDes-1	
NEDESG	NEWPCP Design Conditions	PltDes-2	
SWDESG	SWWPCP Design Conditions	PltDes-3	
SEDESG	SEWPCP Design Conditions	PltDes-4	
WWFS	WWTP Flows & Strengths	PltDes-5	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PlantInd - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Plant-1

Fixed Asset Listing as of date 6/30/2016

Range	Description	Page Number	Table
PlantInd	Index		Plant-1
PLTFUNC	Plant Functions		Plant-2
NEPA1	NE Plant Assets (Non-WPAP) as of 6/30/2016		Plant-3
NEPA2	NE Plant Assets (WPAP) as of 6/30/2016		Plant-4
SWPA1	SW Plant Assets (Non-WPAP) as of 6/30/2016		Plant-5
SWPA2	SW Plant Assets (WPAP) as of 6/30/2016		Plant-6
SEPA1	SE Plant Assets (Non-WPAP) as of 6/30/2016		Plant-7
SEPA2	SE Plant Assets (WPAP) as of 6/30/2016		Plant-8
SPLTFNC	All Plants - Assets by Plant Function as of 6/30/2016		Plant-9
SLOCID	All Locations - Total Assets by Location ID as of 6/30/2016		Plant-10
XXXXX	PAGE NOT IN USE		Plant-11
SFAL	Summary of Fixed Asset Listing Control Totals as of 6/30/2016		Plant-12

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SPLTIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					SplTallo-1

Fixed Asset Listing as of date 6/30/2016

The "SplTallo" worksheet allocates sewer treatment plant investment and annual depreciation to cost functions. It also allocates wastewater system investment to individual contract customers.

Range	Description	Page Number	Table
SPLTIndex	Index		SplTallo-1
NEInvest	Northeast Water Pollution Control Treatment Plant Investment	SplTallo-2	
SWInvest	Southwest Water Pollution Control Treatment Plant Investment	SplTallo-3	
SEInvest	Southeast Water Pollution Control Treatment Plant Investment	SplTallo-4	
TotalInvest	Water Pollution Control Treatment Plant Investment	SplTallo-5	
NEALLO1	Allocation of Test Year Investment for the NE WPCP - Part 1	SplTallo-6	TABLE WW - 9A
NEALLO2	Allocation of Test Year Investment for the NE WPCP - Part 2	SplTallo-7	
NEALLO3	NE WPCP Alloc of Federal Grants For WPAP Projects	SplTallo-8	
SWALLO1	Allocation of Test Year Investment for the SW WPCP	SplTallo-9	TABLE WW - 9B
SWALLO2	SW WPCP Alloc of Federal Grants For WPAP Projects	SplTallo-10	
SEALLO1	Allocation of Test Year Investment for the SE WPCP	SplTallo-11	TABLE WW - 9C
SEALLO2	SE WPCP Alloc of Federal Grants For WPAP Projects	SplTallo-12	
SWReAllo1	SW WPAP Sludge Thickener Allocated To NE and SE Plants - Part 1	SplTallo-13	
SWReAllo2	Summary of SW WPAP Plant Allocated To NE and SE Plants - Part	SplTallo-14	
SWReAllo3	SW WPAP Sludge Digestion Allocated To NE and SE Plants - Part 3	SplTallo-15	
SWReAllo4	SW WPAP Sludge Gas Facilities Allocated To NE and SE Plants - Pt	SplTallo-16	
SWReAllo5	SW WPAP Sludge Disposal (Centrifuges) Allocated To NE and SE P	SplTallo-17	
SWReAllo6	SW WPAP Composting Facilities Allocated To NE and SE Plants - P	SplTallo-18	
SWReAllo7	SW WPAP Dewatering Facilities Allocated To NE and SE Plants - Pt	SplTallo-19	
SWReAllo8	SW Non-WPAP Sludge Disposal Facilities Allocated To NE and SE 1	SplTallo-20	
SWReAllo9	SW Non-WPAP Digesters Allocated To NE and SE Plants - Part 9	SplTallo-21	
SWReAllo10	SW WPAP Prelim. Trtmt Bldg Allocated To NE and SE Plants - Part	SplTallo-22	
SWReAllo11	SW WPAP Grit & Ash Transfer Allocated To NE and SE Plants - Pa	SplTallo-23	
ALLOC	Allocation of TY Plant Investment	SplTallo-24	
INVSTCap1	WPCP Investment Per Unit Of Capacity	SplTallo-25	TABLE WH - 5
INVSTCap2	SW WPCP Treatment Plant Unit Costs	SplTallo-26	
INVSTCap3	Whsl Units of Service for Treatment Plants	SplTallo-27	
TWNPALLO1	Abington Allocated Investment	SplTallo-28	TABLE WH - 6
TWNPALLO2	Cheltenham Allocated Investment	SplTallo-29	TABLE WH - 9
TWNPALLO3	Lower Merion Allocated Investment	SplTallo-30	TABLE WH - 11
TWNPALLO4	Lower Moreland Allocated Investment	SplTallo-31	TABLE WH - 12
TWNPALLO5	Lower Southampton Allocated Investment	SplTallo-32	TABLE WH - 13
TWNPALLO6	Springfield (excl. Wyndmoor) Allocated Investment	SplTallo-33	TABLE WH - 14
CONVREV	Revisions to Conveyance Calculations	SplTallo-34	
TWNPALLO7	Springfield (Wyndmoor) Allocated Investment	SplTallo-35	TABLE WH - 15
TWNPALLO8	Bensalem Allocated Investment	SplTallo-36	TABLE WH - 7
TWNPALLO9	Bucks County Allocated Investment	SplTallo-37	TABLE WH - 8
TWNPALLO10	DELCORA Allocated Investment	SplTallo-38	TABLE WH - 10
TWNPALLO11	Upper Darby Allocated Investment	SplTallo-39	TABLE WH - 16
CONVALLO	Treatment Plant Conveyance Investment Alloc To Townships	SplTallo-40	
LANDALLO	Allocation Of Land Investment To Contract Customers	SplTallo-41	
NEPLTINV	Northeast Water Pollution Control Treatment Plant Investment	SplTallo-42	
TWNSHP	Township Contributed Investment	SplTallo-43	
TYDepr	Test Year Annual Depreciation Expense	SplTallo-44	
TYInvest	Test Year Depreciable Plant Investment	SplTallo-45	
RTLInvest	Depreciable Plant Invest Alloc To Retail Service	SplTallo-46	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SOMIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-1

The "Somallo" worksheet allocates Sewer utility operation and maintenance expense to functional cost components. It also allocates O&M expense to the individual contract customers.

Range	Description	Page Number	Table
SOMIndex	Index	Somallo-1	
TYO&M	Test Year O&M Expenses	Somallo-2	
WO&M	Test Year O&M Expenses - Water	Somallo-3	
SO&M	Test Year O&M Expenses - Sewer	Somallo-4	
CL100A	Not in Use	Somallo-5	
CL100B	Not in Use	Somallo-6	
CL200A	Not in Use	Somallo-7	
CL200B	Not in Use	Somallo-8	
CL200LEA	Not in Use	Somallo-9	
CL200LEB	Not in Use	Somallo-10	
CL300A	Not in Use	Somallo-11	
CL300B	Not in Use	Somallo-12	
CL300LEA	Not in Use	Somallo-13	
CL300LEB	Not in Use	Somallo-14	
CL400A	Not in Use	Somallo-15	
CL400B	Not in Use	Somallo-16	
CL100SUM	Class 100 O&M Summary	Somallo-17	
CL200SUM	Class 200 O&M Summary	Somallo-18	
CL300SUM	Class 300 O&M Summary	Somallo-19	
CL400SUM	Class 400 O&M Summary	Somallo-20	
POWER	Test Year Power Costs	Somallo-21a	
GAS	Test Year Gas Costs	Somallo-21b	
TOTALOM	Test Year O&M Summary	Somallo-22	
NEOM	Allocation of O&M Expense to NE WPCP	Somallo-23	
SWOM	Allocation of O&M Expense to SW WPCP	Somallo-24	
SEOM	Allocation of O&M Expense to SE WPCP	Somallo-25	
RESPON	Treatment Plant Responsibilities	Somallo-26	
NEOMALLO1	Allocation of O&M For The NE WPCP - Page 1	Somallo-27	TABLE WW - 10B
NEOMALLO2	Allocation of O&M For The NE WPCP - Page 2	Somallo-28	
BASISALLO	Basis of Allocation of O&M Expense	Somallo-29	
NEOMSUM	Summary of Allocated O&M NE WPCP	Somallo-30	
SWOMALLO1	Allocation of O&M For The SW WPCP - Page 1	Somallo-31	TABLE WW - 10C
SWOMALLO2	Allocation of O&M For The SW WPCP - Page 2	Somallo-32	
SWOMSUM	Summary of Allocated O&M SW WPCP	Somallo-33	
SEOMALLO1	Allocation of O&M For The SE WPCP - Page 1	Somallo-34	TABLE WW - 10D
SEOMALLO2	Allocation of O&M For The SE WPCP - Page 2	Somallo-35	
SEOMSUM	Summary of Allocated O&M SE WPCP	Somallo-36	
OMALLO	Test Year O&M to Functional Components	Somallo-37	TABLE WW - 10A
MISCOM	Miscellaneous Other O&M Allocations	Somallo-38	
TYOM	Test Year O&M to Functional Cost Components	Somallo-39	TABLES WW - 10E AND WH-2
TRMTPUMP	Unit Treatment & Pumping O&M to Contract Customers	Somallo-40	TABLE WH - 17
TWNALLO1	O&M Allocated to Abington	Somallo-41	TABLE WH - 18
TWNALLO2	O&M Allocated to Bensalem	Somallo-42	TABLE WH - 19
SWMAINT	Allocation of Sewer Maintenance O&M to Townships	Somallo-43	
TWNALLO3	O&M Allocated to Buck County	Somallo-44	TABLE WH - 20
TWNALLO4	O&M Allocated to Cheltenham	Somallo-45	TABLE WH - 21
TWNALLO5	O&M Allocated to Lower Moreland	Somallo-46	TABLE WH - 24
TWNALLO6	O&M Allocated to Lower Southampton	Somallo-47	TABLE WH - 25
TWNALLO7	O&M Allocated to DELCORA	Somallo-48	TABLE WH - 22
TWNALLO8	O&M Allocated to Springfield (excl. Wyndmoor)	Somallo-49	TABLE WH - 26
TWNALLO9	O&M Allocated to Lower Merion	Somallo-50	TABLE WH - 23
TWNALLO10	O&M Allocated to Upper Darby	Somallo-51	TABLE WH - 28
TWNALLO11	O&M Allocated to Springfield (incl. Wyndmoor)	Somallo-52	TABLE WH - 27
CONTRTOM	Summary of O&M Allocated to Contract Customers	Somallo-53	
RTL0M	Operation And Maintenance Expense Allocated To Retail	Somallo-54	TABLE WW - 10
MISCREV	Misc Revenue Adjustments	Somallo-55	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RETIndex - Index	P.N. 135647.0100	February 11, 2018 1:40 p.m.					Retcos-1

The "Retcos" worksheet develops unit costs of service and allocates the retail cost of service among retail customer classes. It summarizes the allocated cost of service for contract customers, and it summarizes the cost of providing stormwater treatment.

Range	Description	Page Number	Table
RETIndex	Index	Retcos-1	
WWUnits	Units Of Wastewater Service	Retcos-2	
TOTOM	Total Contract and Retail O&M	Retcos-3	
DEPR	Test Year Depreciation	Retcos-4	
COLLSYS	Allocation Of Costs Between Sanitary and Stormwater	Retcos-5	
CONTRTPLN	Depreciable Plant Allocable To Contract Customers	Retcos-6	TABLE WH - 1
RTLDPPLNT	Determination Of Depreciable Plant Allocable To Retail Service	Retcos-7	
WWUCOS	Unit Costs Of Retail Wastewater Service	Retcos-8	TABLE WW - 11 AND TABLE WW - 12
ICROR	Inside City Rate Of Return	Retcos-9	
LUMPSUM	Annual Lump Sum Costs For Sewer Maintenance, Customer Related Costs, And Capital Costs	Retcos-10	
CTRCTCOS	Summary Of Allocated Cost Of Service for Contract Customers	Retcos-11	TABLE WH - 29
RTLCC	Allocation Of O&M Expense To Retail Service - Customer Costs	Retcos-12	
RTLPLNT	Allocation Of O&M Expense To Retail Service - Plant	Retcos-13	
RTLII	Allocated Infiltration/Inflow Costs for Inside City Retail Service	Retcos-14	TABLE WW - 14 [Columns (2) and (3)]
RTLCCALLO	Allocation Of Capital Costs To Retail Service	Retcos-15	
RLTCOS	Retail Cost Of Service	Retcos-16	
RLTCOSSUM	Retail Cost Of Service Summary	Retcos-17	
XXXXX	PAGE NOT IN USE	Retcos-18	
RLTCOLL	Allocation Of O&M Expense To Retail Service - Collection System	Retcos-19	
GSCOS	Residential Excluding Senior Citizens Cost Of Service	Retcos-20	TABLE WW - 13 [Line 1]
XXXXX	PAGE NOT IN USE	Retcos-21	
RLTSINVEST	Retail Sewer Investment And Annual Costs Related To Sanitary Wastewater And Storm Water Functions	Retcos-22	
RLTPINVEST	Plant Investment Allocated To Retail Service Customers	Retcos-23	TABLE WW - 9
CONTINV	DELCORA Contributed Investment	Retcos-24	
SWCOS	Storm Water Cost Summary	Retcos-25	

File: SCOS17_19_ver9_rates.x\Philadelphia Water Department (PWD)	P.N. 135647.0100	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RDSNIndex - Index		February 11, 2018 9:00 a.m.			Ratedsn-1

The "Ratedsn" worksheet develops retail cost of service wastewater rates for treating a Mcf of wastewater.

Range	Description	Page Number	Table
RDSNIndex	Index	Ratedsn-1	
ICRTLCO	Inside City Retail Service Unit Costs Of Service For Rate Design	Ratedsn-2	
CSTSERV	Total Retail Cost of Service	Ratedsn-3	
RTLUCOS	Retail Unit Costs of Service	Ratedsn-4	
RTLADJCO	Adjusted Retail Unit Costs	Ratedsn-5	TABLE WW - 15
DSCUSTCO	Discount Customer COS Recovered by Other Retail Customers	Ratedsn-6	
ADJSUR	Adjusted COS Rates for Surcharge Customers	Ratedsn-7	
AVGCOST	Average Cost for Each Mcf of Water Billed - Adjusted COS Basis	Ratedsn-8	TABLE WW - 17
TYCOS	Test Year COS Adjusted to Recover Discounted COS from All Classes	Ratedsn-9	TABLE WW - 14 [Columns (4) and (8)]

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RATESIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Rates-1

The "Rates" worksheet develops contract service lump sum charges and unit costs.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
RATESIndex	Index	Rates-1	
WHLCOST	Wholesale Lump Sum Costs - Maintenance, Customer & Capital Costs	Rates-2	
WHLALLO	Summary of Allocated Costs for Wholesale Customers	Rates-3	
IIRATE	Contract Service Rate Design Adjustment to Recover I/I Costs	Rates-4	
WHLCHARG	Summary Of Charges For Wholesale Contract Customers	Rates-5	TABLE WH - 30
CTRCTREV1	Contract Service Revenues - Page 1	Rates-6	
CTRCTREV2	Contract Service Revenues - Page 2	Rates-7	
PLANTOM	Unit Net O&M Costs by Plant	Rates-8	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SERVIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Servchg-1

The "Servchg" worksheet develops the cost of service monthly service charge for 5/8 inch meters.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
SERVIndex	Index	Servchg-1	
SRVCHG	Service Charge Design	Servchg-2	
ADJRTLCO	Adjusted Retail COS Unit Costs	Servchg-3	
ADJCOSSUM	Summary of Adjusted COS Service Charges	Servchg-4	TABLE WW - 16
EQMBR	Equivalent Meter & Bill Ratios	Servchg-5	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
LAGIndex - Index	P.N. 135647.0100	February 11, 2018 1:49 p.m.					LAGRate-1

The "LagRate" worksheet refines cost of service rates to recognize billing lag and rate implementation refinements and develops proposed Sewer utility rates for the test year and two following years.

Range	Description	Page Number	Table
LAGIndex	Index	LagRate-1	
COSRates	Existing and COS Rates	LagRate-2	
BILLCONS	Projected Accounts, Bills and Consumption	LagRate-3	
PBILLRates	Projected Gross Billings Under Existing Rates	LagRate-4	
BILLMETER	Historical Accounts by Meter Size & Billed Volume	LagRate-5	
BILLMETER	FY 2019 Bills by Meter Size & Billed Volume	LagRate-6	
EBILLS	Historical Billings Under Existing Rates	LagRate-7	
BILLTABFTRFY	2019 Bill Tab Adjustment Factors	LagRate-7a	
EUNITCHRG	Unit Charges Under Existing Rates	LagRate-8	
PBILLS	Billings Under COS Rates	LagRate-9	
PUNTCHRG	Unit Charges Under COS Rates	LagRate-10	
PBILLSRates	Projected Billings Under COS Rates	LagRate-11	
PBILLSUM	Summary of Projected Billings Under COS Rates	LagRate-12	
RECPTS	Calculation of Receipts (Under Proposed Rates) Reflecting Lag	LagRate-13	
TYRECPTS	Test Year Receipts with Lag	LagRate-14	
ADJCOS	Modified COS Rates to Account for Lag	LagRate-15	
CTRCTUnits	Contract Service Customers Billing Units	LagRate-16	
WHLCHRG	Summary of Existing Charges for Wholesale Contract Customers	LagRate-17	TABLE WH - 30
PRATES	Proposed Contract Rates and Percent Incr. Over Existing Rates	LagRate-18	
CTRCTANAL	Contract Serv. Proposed Rates Receipts Analysis - Part 1	LagRate-19	
CTRCTANAL	Contract Serv. Proposed Rates Receipts Analysis - Part 2	LagRate-19a	
COSCLASS	COS & Adjusted COS by Class	LagRate-20	TABLE WW - 14 (Columns (4) to (8))
CTRCTACOS	Contract Customers Allocated Cost of Service	LagRate-21	
EREVCOM	Comparison of Revenue Under Existing Rates to COS	LagRate-22	
CTRCTREVC	Comparison of Contract Revenues Under Existing Rates and Adjusted Rates	LagRate-23	
TYCSTSERV	Test Year Cost of Service	LagRate-24	
PRATESGS	Proposed Wastewater Rates for General Service	LagRate-25	
TYPBILLS	Typical Bills for Water and Wastewater	LagRate-26	
XXXXXX	PAGE NOT IN USE	LagRate-27	
XXXXXX	PAGE NOT IN USE	LagRate-28	
XXXXXX	PAGE NOT IN USE	LagRate-29	
XXXXXX	PAGE NOT IN USE	LagRate-30	
PHRATESTA	Four Years of Phased Rates (No trending)	LagRate-31	
PHASE1BILL	Transition Phase 1 Typical Bills	LagRate-32	
PHASE2BILL	Transition Phase 2 Typical Bills	LagRate-33	
PHASE3BILL	Transition Phase 3 Typical Bills	LagRate-34	
CHRGCMP1	Comparison 1 of Typical Bills	LagRate-35	
CHRGCMP2	Comparison 2 of Typical Bills	LagRate-36	Table C-4
PROPRCPTS	Page 1 of FY 2019 Proposed Receipts Calcs	LagRate-37	
PROPRCPTS	Page 2 of FY 2019 Proposed Receipts Calcs	LagRate-38	
XXXXXX	PAGE NOT IN USE	LagRate-39	
SSEVRCHGS	2019 Components of Sewer Service Charges	LagRate-40	
XXXXXX	PAGE NOT IN USE	LagRate-41	
XXXXXX	PAGE NOT IN USE	LagRate-42	
SSEVRCHGS	Summary of Components of Regular Sewer Service Charges	LagRate-43	
SSEVRCHGS	Summary of Components of Discount Sewer Service Charges	LagRate-44	

The "SW LagRate" worksheet calculated projected billings and revenues under proposed stormwater rates.

<u>Range</u>	<u>Page Number</u>	<u>Description</u>
SW LagRate - 1		PROJECTED BILLABLE PARCELS
SW LagRate - 2		PROJECTED BILLABLE ACCOUNTS
SW LagRate - 3		PROJECTED BILLABLE IMPERVIOUS AREA (1000 sq ft)
SW LagRate - 4		PROJECTED BILLABLE GROSS AREA (1000 sq ft)
SW LagRate - 5		PROJECTED BILLINGS UNDER COS RATES
SW LagRate - 6		PROPOSED RATES (ADJUSTED FOR DISCOUNT RECOVERY AND LAG FACTOR)
SW LagRate - 7		PROJECTED BILLINGS UNDER PROPOSED RATES
SW LagRate - 8		STORMWATER REVENUES UNDER PROPOSED RATES-TEST YEAR 2019

SCOS17_19.XLS

UNITS

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
UnitsInd - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-1

The "Units" worksheet develops the units of service for retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

Range	Description	Page Number	Table
UnitsInd	Index	Units-1	
CSUNITS	OC Contract Service Sewer Units	Units-2	TABLE WH - 3
UNTSER	Units of Sewer Service	Units-3	
TRMTUTS	Treatment Plant Units	Units-4	
PSUTS	Pumping Stations Units	Units-5	
SWRUTS	Sewer Units	Units-6	TABLE WW - 8
TPFS	Trmt Plant Flows and Strengths	Units-7	
CCSF	Customer Class Sanitary Flows	Units-8	
RTLUNT	Retail Sewer Units	Units-9	
BILLTAB	FY 2016 Bill Distribution & TY Number of Bills	Units-10	
TYBILLS	FY 2019 Test Year Sewer Bills	Units-11	
TYMTRS	FY 2019 Test Year Equiv. Sewer Meters	Units-12	
TYUOS	FY 2019 Units of Wastewater Service	Units-13	
CCAS	Contract Customers Average Strengths	Units-14	TABLE WH - 4
RATIOS	Equiv. Bill and Meter Ratios	Units-15	
CNTRCTUNI	Contract Maximum Limit:	Units-16	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
CSUNITS - OC Contract Service Sewer Units	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Units-2

Reference: Customer-19 Financial Plan Model

OUTSIDE CITY CONTRACT SERVICE UNITS OF WASTEWATER SERVICE

Line No.	(1) Units	(2) Northeast WPC Plant						(3) Southwest WPC Plant					(4) Southeast WPC Plant		(15) Total
		(3) Abington	(4) Bensalem	(5) Bucks County	(6) Cheltenham	(7) Lower Moreland	(8) Lower Southampton	(9) Total Northeast	(10) DELCORA	(11) Lower Merion	(12) Springfield (Excluding Wyndmoor)	(13) Upper Darby	(14) Total Southwest	(14) Springfield (Wyndmoor)	
FY 2019 Test Year															
Volume:															
1	Sanitary Wastewater (Mcf)	98,000	170,000	800,000	325,000	55,000	260,000	1,383,000	Total Northeast excluding Cheltenham					19,000	3,887,000
2	Infiltration (Mcf)	4,500	5,600	35,100	15,000	2,800	7,500	70,500	1,200,000	350,000	150,000	460,000	2,160,000	900	105,100
3	Total (Mcf)	102,500	175,600	835,100	340,000	57,800	267,500	1,438,500	1,200,000	364,900	152,200	476,600	2,193,700	19,900	3,992,100
Suspended Solids:															
4	Sanitary Wastewater (1,000 lbs)	1,003	2,249	10,483	2,799	601	2,498	19,633	13,029	3,494	1,797	4,593	22,913	160	42,706
5	Infiltration (1,000 lbs)	28	35	219	94	17	47	440		93	14	104	211	6	657
6	Total (1,000 lbs)	1,031	2,284	10,702	2,893	618	2,545	20,073	13,029	3,587	1,811	4,697	23,124	166	43,363
BOD															
7	Sanitary Wastewater (1,000 lbs)	1,400	2,705	9,884	2,393	450	2,093	18,925	11,307	3,101	1,704	3,990	20,102	124	39,151
8	Infiltration (1,000 lbs)	7	9	55	23	4	12	110		23	3	26	52	1	163
9	Total (1,000 lbs)	1,407	2,714	9,939	2,416	454	2,105	19,035	11,307	3,124	1,707	4,016	20,154	125	39,314
Contract Maximum Units															
Capacity:															
10	Sanitary Wastewater (cfs)	9.542	11.740	74.260	31.750	5.880	15.790	10,126	Total Northeast excluding Cheltenham			35.000	1.930		
11	Sanitary Wastewater (Mcf/day)	824	1,014	6,416	2,743	508	1,364	12,869	155,000	31,570	4,600	3,024	19,541	167	32,577
12	Infiltration (Mcf/day)	20	20	140	60	10	30	280	13,392	2,728	397	70	140	0	420
12	Total (Mcf/day)	844	1,034	6,556	2,803	518	1,394	13,149	13,392	2,788	407	3,094	19,681	167	32,997
Volume:															
13	Sanitary Wastewater (mgd)	4.453	6.133	24.000	13.410	1.900	7.140	50,000	14,500	3,200	17,000	4,133,088	48,797	6,965,064	
14	Sanitary Wastewater (Mcf)	217,292	299,271	1,171,123	654,370	92,714	348,409	2,783,179	2,439,840	707,553	156,150	829,545	33,700	900	105,100
15	Infiltration (Mcf)	4,500	5,600	35,100	15,000	2,800	7,500	70,500	14,900	2,200	16,600	33,700	900	105,100	
15	Total (Mcf)	221,792	304,871	1,206,223	669,370	95,514	355,909	2,853,679	2,439,840	722,453	158,350	846,145	4,166,788	49,697	7,070,164
Suspended Solids:															
16	Sanitary Wastewater (1,000 lbs)	2,481	3,734	13,400	5,635	966	6,000	32,216	19,487	7,250	3,300	7,349	37,386	200	69,802
17	Infiltration (a) (1,000 lbs)	28	35	219	94	17	47	440		93	14	104	211	6	657
18	Total (1,000 lbs)	2,509	3,769	13,619	5,729	983	6,047	32,656	19,487	7,343	3,314	7,453	37,597	206	70,459
BOD:															
19	Sanitary Wastewater (1,000 lbs)	2,102	5,340	13,400	4,818	729	5,500	31,889	21,771	6,871	3,100	6,831	38,573	155	70,617
20	Infiltration (1,000 lbs)	7	9	55	23	4	12	110		23	3	26	52	1	163
21	Total (1,000 lbs)	2,109	5,349	13,455	4,841	733	5,512	31,999	21,771	6,894	3,103	6,857	38,625	156	70,780

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

(a) I/I SS ppm allowance 100
(a) I/I BOD ppm allowance 25

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
UNTSE - Units of Sewer Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-3

Reference: Customer-12 Financial Plan Model

**UNITS OF WASTEWATER SERVICE
Test Year 2019**

Customer Class	(1)	(2)	(3)
	Capacity Flow Rate		
	FY 2019	Collection	Pumping and
	Test Year (a)	System (b)	Treatment (c)
	Mcf	Mcf/day	Mcf/day
	Wtr Sales * 0.95	(7) / 365	(7) / 365
		* capacity ftr	* capacity ftr
Residential (5/8)	2,628,308	28,803	10,801
Residential (>5/8)	359,103	3,935	1,476
Commercial (5/8)	295,134	3,234	1,213
Commercial (>5/8)	1,126,601	12,346	4,630
Industrial (5/8)	5,381	59	22
Industrial (>5/8)	76,873	842	316
Public Utilities (5/8)	440	5	2
Public Utilities (>5/8)	9,832	108	40
Senior Citizens (5/8)	109,617	1,201	450
Senior Citizens (>5/8)	25	0	0
Water Plant Sludge	292,800	3,209	1,203
Housing Authority	157,846	1,730	649
Charities & Schools	178,825	1,960	735
Hospital/University	276,290	3,028	1,135
Hand Bill	405,375	4,442	1,666
xxxxxxxxxx	0	0	0
Sewer Only	73,150	802	301
Groundwater	210,000	4,603	1,438
Fire Meters	4,275	47	18
Scheduled (Flat Rate)	23	0	0
xxxxxxxxxx	0	0	0
Subtotal Retail Sanitary	6,209,900	70,354	26,095
	Units-4 - above		
I/I	8,926,000	195,638	61,137
Total Retail Service	15,135,900	265,992	87,232
Contract Service:	Units-2	Units-2	Units-2
Sanitary	3,887,000	32,577	32,577
I/I	105,100	420	420
Total	3,992,100	32,997	32,997
Total System	19,128,000	298,989	120,229

Capacity Factors	
Sanitary Sewerage:	
Collection System Capacity Factor	4.0
Pumping and Trtmt Capacity Factor	1.5
Infiltration/Inflow:	
Collection System Capacity Factor	8.0
Pumping and Trtmt Capacity Factor	2.5

Note: Groundwater is assigned the I/I peaking factors

- (a) Adjusted to exclude 5% not entering sewers.
- (b) Retail capacity factor = 4.0, I/I and Groundwater capacity factor = 8.0.
- (c) Retail capacity factor = 1.5, I/I and Groundwater capacity factor = 2.5.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
TRMTUTS - Treatment Plant Units	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Units-4

TREATMENT PLANTS UNITS OF SERVICE

Plant	FY 2019 Test Year Volume			FY 2019 Test Year Capacity			FY 2019 Test Year Treatment Plant average plant strengths			
	Total	Contract Customers	Net Retail	Total	Contract Customers	Net Retail	SS	BOD	SS	BOD
	Mcf <u>Units-7</u>	Mcf <u>Units-2</u>	Mcf	Mcf/day <u>Units-3</u>	Mcf/day <u>Units-2</u>	Mcf/day	1,000 lbs	1,000 lbs	ppm <u>Pltdes-5</u>	ppm <u>Pltdes-5</u>
NE	7,564,000	1,778,500	5,785,500	47,544	13,149	34,395	88,232	68,415	187	145
SW	7,807,000	2,193,700	5,613,300	49,071	19,681	29,390	81,327	58,926	167	121
SE	3,757,000	19,900	3,737,100	23,614	167	23,447	34,216	26,717	146	114
Total	19,128,000	3,992,100	15,135,900	120,229	32,997	87,232	203,775	154,058	171	129

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PSUTS - Pumping Stations Units	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-5

PUMPING STATIONS UNITS OF SERVICE

Central Schuylkill Pumping Station

Volume: 2,715,700 Mcf/yr BD-24

Capacity:
 Total Capacity of CSPA (Mcf/day) 22,110 Prior Rate Proceeding
 Contract Maximum Springfield (excluding Wyndoor) (Mcf/day) 370 Prior Rate Proceeding

Neill Drive Pumping Station

Volume: 69,650 Mcf/yr BD-24

Capacity:
 Total Capacity of NDPS (Mcf/day) 370 Prior Rate Proceeding

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
SWRUTS - Sewer Units	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Units-6

**UNITS OF WASTEWATER SERVICE
Test Year 2019**

Customer Class	(1)	(2) Capacity Flow Rate		(3) Strength		(5)	(6)	(7) Customer	(8)	(9)
	FY 2019 Test Year	Collection System	Pumping and Treatment	Suspended Solids (b)	BOD (c)	Equivalent Bills	Equivalent Meters	Equivalent Service Meters	Bills	
	Mcf <u>Units-3</u>	Mcf/day (7) / 365	Mcf/day (8) * capacity factor	1,000 lbs	1,000 lbs	<u>Units-11</u>	<u>Units-12</u>	<u>Units-12</u>		
Residential	2,987,411	32,736	12,276	47,536	49,400	4,984,873	429,455	415,136	4,971,672	
Commercial	1,421,736	15,581	5,843	22,623	23,510	471,319	84,207	36,111	418,812	
Industrial	82,254	901	338	1,309	1,360	15,186	3,908	1,125	12,384	
Public Utilities	10,272	113	42	163	170	2,700	1,069	138	1,620	
Senior Citizens	109,642	1,202	451	1,745	1,813	256,420	21,375	21,368	256,416	
Sewer Only	73,150	802	301	1,164	1,210	1,532	541	79	924	
Groundwater	210,000	4,603	1,438	917	131					
Surcharge	0	0	0	2,340	11,520					
Water Treatment Plant Sludge	292,800	3,209	1,203	26,000						
Housing Authority	157,846	1,730	649	2,512	2,610	70,386	8,077	5,588	67,428	
Charities & Schools	178,825	1,960	735	2,845	2,957	46,692	16,817	2,214	29,088	
Hospital/University	276,290	3,028	1,135	4,396	4,569	15,457	8,295	230	5,112	
Hand Bill	405,375	4,442	1,666	6,450	6,703	9,364	5,181	112	2,904	
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	
Fire Meters	4,275	47	18	68	71	1,301	380	82	924	
Scheduled (Flat Rate)	23	0	0	0	0	36	3	3	36	
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	
Subtotal Retail Sanitary	6,209,900	70,354	26,095	120,068	106,024	5,875,266	579,308	482,187	5,767,320	
I/I	8,926,000	195,638	61,137	38,978	5,568					
Total Retail Service	15,135,900	265,992	87,232	159,046	111,592	5,875,266	579,308	482,187	5,767,320	
Contract Service:		<u>Units-3</u>	<u>Units-3</u>	<u>Units-9</u>	<u>Units-9</u>					
Sanitary	3,887,000	32,577	32,577	42,706	39,151					
I/I	105,100	420	420	656	164					
Total	3,992,100	32,997	32,997	43,362	39,315					
Total System	19,128,000	298,989	120,229	202,408	150,907					

- (a) Adjusted to exclude 5% not entering sewers.
- (b) Retail SS @ 255 mg/l
- (c) Retail BOD @ 265 mg/l

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TPFS - Trtmt Plant Flows and Strengths	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-7

**Units of Service - Treatment Plant Flows and Strengths
Test Year 2019**

Plant	(1) Influent Flow		(2) Mcf		(3) Average Strength		(4) Total Pounds		(5) Allocation of Total Pounds		(6) Resulting Average Strength	
	mgd	Units-4	ppm	1,000 lbs	1,000 lbs	ppm	Basis of Allocation		Basis of Allocation		ppm	
							Average Strength	Total Pounds	Average Strength	Total Pounds		
	PltDes-5	Units-4	PltDes-5	Units-4	1,000 lbs	ppm	ppm	1,000 lbs	1,000 lbs	ppm		
				Allocate Units-6 on Col. (4)	(5)/(1)/365 /0.00834	PltDes-5	Units-4	Allocate Units-6 on Col. (8)	(9)/(1)/365 /0.00834			
NE	155	7,564,000	145	68,415	67,015	142	187	88,232	87,641	186		
SW	160	7,807,000	121	58,926	57,721	119	167	81,327	80,781	166		
SE	77	3,757,000	114	26,717	26,171	112	146	34,216	33,986	145		
Total	392	19,128,000	129	154,058	150,907	126	171	203,775	202,408	170		

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
CCSF - Customer Class Sanitary Flows	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Units-8

ESTIMATED ANNUAL SANITARY WASTEWATER CONTRIBUTION BY CUSTOMER CLASS

Test Year 2019

Line No.	Customer Class	(1) Total Volume Billable for Wastewater Service (a) Mcf (3) / [(2)/100]	(2) Estimated Wastewater Contribution Factor	(3) Estimated Annual Sanitary Wastewater Volume Mcf Units-6
1	Residential	3,144,600	95	2,987,411
2	Commercial	1,496,600	95	1,421,736
3	Industrial	86,600	95	82,254
4	Public Utilities	10,800	95	10,272
5	Senior Citizens	115,400	95	109,642
6	Sewer Only	77,000	95	73,150
7	Groundwater	210,000	100	210,000
8	Housing Authority	166,200	95	157,846
9	Charities & Schools	188,200	95	178,825
10	Hospital/University	290,800	95	276,290
11	Hand Bill	426,700	95	405,375
12	xxxxxxxxxx	0	95	0
13	Fire Meters	4,500	95	4,275
14	Scheduled	0	95	23
15	xxxxxxxxxx	0	95	0
16	Total Retail	6,217,400	95	5,917,100
17	Contract Service (b)	3,887,000	100	3,887,000
18	Total System	10,104,400	97	9,804,100

Mcf - Thousand cubic feet

- (a) Water purchased by retail service customers and wastewater flows from contract service customers and wastewater only customers.
- (b) Includes areas served under contracts with 10 separate suburban authorities.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLUNT - Retail Sewer Units	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-9

**Units of Service - Retail
Average BOD and SS Strengths
Test Year 2019**

Line No.		(1)	(2)	(3)	(4)	(5)
		BOD 1,000 lbs	SS 1,000 lbs <small>Calc from Units-6</small>	Volume mgd	BOD mg/l	SS mg/l
1	Total Pounds Flowing Into Treatment Plants	154,058	203,775	392.0	129.104	170.768
	Less Infiltration /Inflow Contribution					
	Contract Customers			2.2		
2	BOD @ 10 ppm x 105,100.0 Mcf	164				
3	SS @ 70 ppm x 105,100.0 Mcf		656			
	Retail Customers			182.9		
4	BOD @ 10 ppm x 8,926,000 Mcf	5,568				
5	SS @ 70 ppm x 8,926,000 Mcf		38,978			
		<u>Units-2</u>	<u>Units-2</u>	<u>Units-2</u>		
6	Less Contract Customers Sanitary Contribution	39,151	42,706	79.7		
7	Subtotal Retail Sanitary Contribution	109,175	121,435	127.2		
8	Less Surcharge Excess Strength Contribution	11,520	2,340			Projection based average loading per account and projected surcharge accounts
9	Less Water Treatment Plant Sludge (a)		26,000	6.0		Based on historical WTP Sludge volume and loading data
10	Net Normal Strength Retail	97,655	93,095	121.2		
11	Resulting Retail Average Strength of Sanitary Volume Contributed to Collection System	264.687	252.328			
					Estimated Infiltration/Inflow Strengths	
12	Average Retail Strengths (mg/l)	USE 265	USE 255		BOD 10	SS 70
	(a) Includes 26,000,000 lbs. of SS from Water Treatment Plant sludge	280	300		10	70 PREVIOUS VALUES

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a	
BILLTAB - FY 2016 Bill Distribution & TY Number of Bills P.N. 135647.0100		February 11, 2018 9:00 a.m.						Units-10

Source: Financial Planning Model - Btab

	Total Count	5/8" R	3/4" Z	1" Q	1-1/4" Y	1-1/2" P	2" X	3" O	4" W	6" N	8" V	10" E	12" T
Percentage Distribution of Accounts													
Residential	1.000000	0.988607	0.000150	0.007919	0.000000	0.001566	0.001265	0.000345	0.000111	0.000029	0.000007	0.000000	0.000000 x
Commercial	1.000000	0.803587	0.000344	0.078909	0.000000	0.033409	0.049454	0.019140	0.010143	0.003639	0.000917	0.000458	0.000000
Industrial	1.000000	0.507752	0.000000	0.237403	0.000000	0.077519	0.108527	0.048450	0.012597	0.007752	0.000000	0.000000	0.000000
Public Utilities	1.000000	0.355556	0.000000	0.207407	0.000000	0.081481	0.162963	0.103704	0.044444	0.029630	0.014815	0.000000	0.000000
Senior Citizens	1.000000	0.999860	0.000000	0.000094	0.000000	0.000047	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sewer Only	1.000000	0.740260	0.012987	0.025974	0.000000	0.000000	0.116883	0.025974	0.025974	0.012987	0.025974	0.012987	0.000000 x
Groundwater	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000 x
Housing Authority	1.000000	0.970635	0.000000	0.003203	0.000000	0.007297	0.005517	0.006763	0.003381	0.002136	0.001068	0.000000	0.000000 x
Charities & Schools	1.000000	0.489686	0.000000	0.129538	0.000000	0.061056	0.099010	0.089934	0.115924	0.013614	0.001238	0.000000	0.000000 x
Hospital/University	1.000000	0.096244	0.000000	0.079812	0.000000	0.037559	0.147887	0.241784	0.258216	0.117371	0.016432	0.004695	0.000000 x
Hand Bill	1.000000	0.041322	0.000000	0.053719	0.000000	0.041322	0.148760	0.289256	0.293388	0.095041	0.024793	0.012397	0.000000
Scheduled	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
xxxxxxxxxx	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
xxxxxxxxxx	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000 x
Fire Service	1.000000	0.649351	0.000000	0.077922	0.000000	0.051948	0.129870	0.012987	0.051948	0.025974	0.000000	0.000000	0.000000

Number of Bills - TY 2019

Residential	4,971,672
Commercial	418,812
Industrial	12,384
Public Utilities	1,620
Senior Citizens	256,416
Sewer Only	924
Groundwater	36
Housing Authority	67,428
Charities & Schools	29,088
Hospital/University	5,112
Hand Bill	2,904
Scheduled	36
xxxxxxxxxx	0
xxxxxxxxxx	0
Fire Service	924

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TYBILLS - FY 2019 Test Year Sewer Bills	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-11

Reference: Financial Plan Model Customer-1 and Assumptions-41

EQUIVALENT WASTEWATER BILLS
Retail Customers
Excludes Water Only; Includes Sewer Only
Test Year 2019

FY 2019 Test Year Number of Bills(a)	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"
	Ref. A Test Years bills allocated based on Units-10												
Equivalent Bill Factor	1.0	1.0	1.1	1.2	1.2	1.5	2.0	4.0	7.0	10.0	15.0	20.0	23.0
Residential													
Bills													
5/8"	4,915,020	4,915,020											
>5/8"	56,652		744	39,381	0	7,790	6,289	1,716	552	144	36	0	0
Total Bills	4,971,672	4,915,020	744	39,381	0	7,790	6,289	1,716	552	144	36	0	0
Equivalent Bills	4,984,873	4,915,020	744	43,319	0	9,348	9,434	3,432	2,208	1,008	360	0	0
Commercial													
Bills													
5/8"	336,552	336,552											
>5/8"	82,260		144	33,048	0	13,992	20,712	8,016	4,248	1,524	384	192	0
Total Bills	418,812	336,552	144	33,048	0	13,992	20,712	8,016	4,248	1,524	384	192	0
Equivalent Bills	471,319	336,552	144	36,353	0	16,790	31,068	16,032	16,992	10,668	3,840	2,880	0
Industrial													
Bills													
5/8"	6,288	6,288											
>5/8"	6,096		0	2,940	0	960	1,344	600	156	96	0	0	0
Total Bills	12,384	6,288	0	2,940	0	960	1,344	600	156	96	0	0	0
Equivalent Bills	15,186	6,288	0	3,234	0	1,152	2,016	1,200	624	672	0	0	0
Public Utilities													
Bills													
5/8"	576	576											
>5/8"	1,044		0	336	0	132	264	168	72	48	24	0	0
Total Bills	1,620	576	0	336	0	132	264	168	72	48	24	0	0
Equivalent Bills	2,700	576	0	370	0	158	396	336	288	336	240	0	0
Senior Citizens													
Bills													
5/8"	256,380	256,380											
>5/8"	36		0	24	0	12	0	0	0	0	0	0	0
Total Bills	256,416	256,380	0	24	0	12	0	0	0	0	0	0	0
Equivalent Bills	256,420	256,380	0	26	0	14	0	0	0	0	0	0	0
Sewer Only													
Bills	924	684	12	24	0	0	108	24	24	12	24	12	0
Equivalent Bills	1,532	684	12	26	0	0	162	48	96	84	240	180	0

Groundwater													
Bills	36	36	0	0	0	0	0	0	0	0	0	0	0
Equivalent Bills	36	36	0	0	0	0	0	0	0	0	0	0	0
Housing Authority													
Bills	67,428	65,448	0	216	0	492	372	456	228	144	72	0	0
Equivalent Bills	70,386	65,448	0	238	0	590	558	912	912	1,008	720	0	0
Charities & Schools													
Charities & Schools													
Bills	29,088	14,244	0	3,768	0	1,776	2,880	2,616	3,372	396	36	0	0
Equivalent Bills	46,692	14,244	0	4,145	0	2,131	4,320	5,232	13,488	2,772	360	0	0
Hospitals and Universities													
Bills	5,112	492	0	408	0	192	756	1,236	1,320	600	84	24	0
Equivalent Bills	15,457	492	0	449	0	230	1,134	2,472	5,280	4,200	840	360	0
Hand Bill													
Bills	2,904	120	0	156	0	120	432	840	852	276	72	36	0
Equivalent Bills	9,364	120	0	172	0	144	648	1,680	3,408	1,932	720	540	0
Scheduled													
Bills	36	36	0	0	0	0	0	0	0	0	0	0	0
Equivalent Bills	36	36	0	0	0	0	0	0	0	0	0	0	0
xxxxxxxxxx													
Bills	0	0	0	0	0	0	0	0	0	0	0	0	0
Equivalent Bills	0	0	0	0	0	0	0	0	0	0	0	0	0
xxxxxxxxxx													
Bills	0	0	0	0	0	0	0	0	0	0	0	0	0
Equivalent Bills	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire Service													
Bills	924	600	0	72	0	48	120	12	48	24	0	0	0
Equivalent Bills	1,301	600	0	79	0	58	180	24	192	168	0	0	0
Total													
Bills	5,767,320	5,596,440	900	80,373	0	25,514	33,277	15,684	10,872	3,264	732	264	0
Equivalent Bills	5,875,266	5,596,440	900	88,411	0	30,615	49,916	31,368	43,488	22,848	7,320	3,960	0

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TYMTRS - FY 2019 Test Year Equiv. Sewer Meters	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-12

EQUIVALENT WASTEWATER "METERS"
Retail Customers
Excludes Water Only; Includes Sewer Only
Test Year 2019

FY 2019 Test Year Number of Meters(a)	Number of Bills (Units-11) / 12													
	<u>5/8</u>	<u>3/4</u>	<u>1</u>	<u>1 1/4</u>	<u>1 1/2</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>14</u>	
Equivalent Meter Factor (Capacity)	1.0	1.5	2.5	3.8	5.0	8.0	15.0	25.0	50.0	80.0	115.0	215.0	225.0	
Equivalent Meter Factor (Service)	1.0	1.0	1.1	1.2	1.2	2.1	10.0	12.0	15.0	19.0	25.0	28.0	45.0	
Residential														
Meters	414,306	409,585	62	3,282	0	649	524	143	46	12	3	0	0	
Equivalent Meters	429,455	409,585	93	8,205	0	3,245	4,192	2,145	1,150	600	240	0	0	
Equivalent Service	415,136	409,585	62	3,610	0	779	1,100	0	0	0	0	0	0	
Commercial														
Meters	34,901	28,046	12	2,754	0	1,166	1,726	668	354	127	32	16	0	
Equivalent Meters	84,207	28,046	18	6,885	0	5,830	13,808	10,020	8,850	6,350	2,560	1,840	0	
Equivalent Service	36,111	28,046	12	3,029	0	1,399	3,625	0	0	0	0	0	0	
Industrial														
Meters	1,032	524	0	245	0	80	112	50	13	8	0	0	0	
Equivalent Meters	3,908	524	0	613	0	400	896	750	325	400	0	0	0	
Equivalent Service	1,125	524	0	270	0	96	235	0	0	0	0	0	0	
Public Utilities														
Meters	135	48	0	28	0	11	22	14	6	4	2	0	0	
Equivalent Meters	1,069	48	0	70	0	55	176	210	150	200	160	0	0	
Equivalent Service	138	48	0	31	0	13	46	0	0	0	0	0	0	
Senior Citizens														
Meters	21,368	21,365	0	2	0	1	0	0	0	0	0	0	0	
Equivalent Meters	21,375	21,365	0	5	0	5	0	0	0	0	0	0	0	
Equivalent Service	21,368	21,365	0	2	0	1	0	0	0	0	0	0	0	
Sewer Only														
Meters	77	57	1	2	0	0	9	2	2	1	2	1	0	
Equivalent Meters	541	57	2	5	0	0	72	30	50	50	160	115	0	
Equivalent Service	79	57	1	2	0	0	19	0	0	0	0	0	0	
Groundwater														
Meters	3	3	0	0	0	0	0	0	0	0	0	0	0	
Equivalent Meters	3	3	0	0	0	0	0	0	0	0	0	0	0	
Equivalent Service	3	3	0	0	0	0	0	0	0	0	0	0	0	
Housing Authority														
Meters	5,619	5,454	0	18	0	41	31	38	19	12	6	0	0	
Equivalent Meters	8,077	5,454	0	45	0	205	248	570	475	600	480	0	0	
Equivalent Service	5,588	5,454	0	20	0	49	65	0	0	0	0	0	0	

Charities & Schools													
Charities & Schools													
Meters	2,424	1,187	0	314	0	148	240	218	281	33	3	0	0
Equivalent Meters	16,817	1,187	0	785	0	740	1,920	3,270	7,025	1,650	240	0	0
Equivalent Service	2,214	1,187	0	345	0	178	504	0	0	0	0	0	0
Hospital/University													
Meters	426	41	0	34	0	16	63	103	110	50	7	2	0
Equivalent Meters	8,295	41	0	85	0	80	504	1,545	2,750	2,500	560	230	0
Equivalent Service	230	41	0	37	0	19	132	0	0	0	0	0	0
Hand Bill													
Meters	242	10	0	13	0	10	36	70	71	23	6	3	0
Equivalent Meters	5,181	10	0	33	0	50	288	1,050	1,775	1,150	480	345	0
Equivalent Service	112	10	0	14	0	12	76	0	0	0	0	0	0
Scheduled													
Meters	3	3	0	0	0	0	0	0	0	0	0	0	0
Equivalent Meters	3	3	0	0	0	0	0	0	0	0	0	0	0
Equivalent Service	3	3	0	0	0	0	0	0	0	0	0	0	0
xxxxxxxxxx													
Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
Equivalent Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
Equivalent Service	0	0	0	0	0	0	0	0	0	0	0	0	0
xxxxxxxxxx													
Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
Equivalent Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
Equivalent Service	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire Service													
Meters	77	50	0	6	0	4	10	1	4	2	0	0	0
Equivalent Meters	380	50	0	15	0	20	80	15	100	100	0	0	0
Equivalent Service	82	50	0	7	0	5	21	0	0	0	0	0	0
Total (b)													
Meters	480,610	466,370	75	6,698	0	2,126	2,773	1,307	906	272	61	22	0
Equivalent Meters	579,308	466,370	113	16,746	0	10,630	22,184	19,605	22,650	13,600	4,880	2,530	0
Equivalent Service	482,187	466,370	75	7,368	0	2,551	5,823	0	0	0	0	0	0

(a) Including Wastewater Only.

(b) Excludes Groundwater

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
TYUOS - FY 2019 Units of Wastewater Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Units-13

TABLE WW - 8

UNITS OF WASTEWATER SERVICE
TEST YEAR 2019

Line No.	Customer Class	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Capacity Flow Rate			Strength		Customer			
		FY 2019 Test Year Volume	Collection System	Pumping and Treatment	Suspended Solids	BOD	Equivalent Bills	Equivalent Meters	Equivalent Service	Bills
		Mcf Units-6	Mcf/day Units-6	Mcf/day Units-6	1,000 lbs Units-6	1,000 lbs Units-6	Units-6	Units-6	Units-6	
1	Residential	2,987,411	32,736	12,276	47,536	49,400	4,984,873	429,455	415,136	4,971,672
2	Commercial	1,421,736	15,581	5,843	22,623	23,510	471,319	84,207	36,111	418,812
3	Industrial	82,254	901	338	1,309	1,360	15,186	3,908	1,125	12,384
4	Public Utilities	10,272	113	42	163	170	2,700	1,069	138	1,620
5	Senior Citizens	109,642	1,202	451	1,745	1,813	256,420	21,375	21,368	256,416
6	Sewer Only	73,150	802	301	1,164	1,210	1,532	541	79	924
7	Groundwater	210,000	4,603	1,438	917	131	0	0	0	0
8	Surcharge				2,340	11,520				0
9	Water Treatment Plant Sludge	292,800	3,209	1,203	26,000					
10	Housing Authority	157,846	1,730	649	2,512	2,610	70,386	8,077	5,588	67,428
11	Charities	455,116	4,988	1,870	7,241	7,526	62,149	25,112	2,444	34,200
12	Hand Bill	405,375	4,442	1,666	6,450	6,703	9,364	5,181	112	2,904
13	xxxxxxxxxx	0	0	0	0	0	0	0	0	0
14	Fire Meters	4,275	47	18	68	71	1,301	380	82	924
15	Scheduled	23	0	0	0	0	36	3	3	36
16	xxxxxxxxxx	0	0	0	0	0	0	0	0	0
17	Subtotal Retail Sanitary	6,209,900	70,354	26,095	120,068	106,024	5,875,266	579,308	482,187	5,767,320
18	Infiltration/Inflow	8,926,000	195,638	61,137	38,978	5,568				0
19	Total Retail Service	15,135,900	265,992	87,232	159,046	111,592	5,875,266	579,308	482,187	5,767,320
20	Contract Service:									
21	Sanitary	3,887,000	32,577	32,577	42,706	39,151				
22	Infiltration/Inflow	105,100	420	420	656	164				
23	Total Contract Service	3,992,100	32,997	32,997	43,362	39,315				
24	Total System	19,128,000	298,989	120,229	202,408	150,907				

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
CCAS - Contract Customers Average Strengths	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-14

Reference: Customer-19 Financial Planning Model

TABLE_WW-29

**ESTIMATED AVERAGE WASTEWATER
STRENGTH CONCENTRATIONS
FOR CONTRACT CUSTOMERS**

Test Year 2019

	Average Wastewater Strength Concentrations	
	Suspended	
	<u>Solids</u> mg/l	<u>BOD</u> mg/l
Abington	164	229
Bensalem	212	255
Bucks County	210	198
Cheltenham	138	118
DELCORA	174	151
Lower Merion	160	142
Lower Moreland	175	131
Lower Southampton	154	129
Springfield (excluding Wyndoor)	192	182
Springfield (Wyndoor)	135	105
Upper Darby	160	139

mg/l - milligram per liter

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RATIOS - Equiv. Bill and Meter Ratios	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-15

EQUIVALENT BILL AND METER RATIOS

Meter Size	Equivalent Factors		
	Bills	Meters Capacity Basis	Service Cost Basis
	<u>Units-11</u>	<u>Units-12</u>	
5/8	1.00	1.00	1.00
3/4	1.00	1.50	1.00
1	1.10	2.50	1.10
1-1/4	1.20	3.80	1.20
1-1/2	1.20	5.00	1.20
2	1.50	8.00	2.10
3	2.00	15.00	10.00
4	4.00	25.00	12.00
6	7.00	50.00	15.00
8	10.00	80.00	19.00
10	15.00	115.00	25.00
12	20.00	215.00	28.00

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
CNTRCTUNITS - Contract Maximum Limits	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Units-16

Summary of Wholesale Contract Agreements

Township	Flow Limits					Flow Limits			
	Maximum Annual Avg mgd	Instantaneous Maximum cfs	Maximum Annual Loading: SS 1,000 lbs BOD 1,000 lbs			Maximum Annual Avg mgd	Instantaneous Maximum cfs	Max Annual Loadings SS 1,000 lbs BOD 1,000 lbs	
Springfield					Lower Moreland				
Erdenheim	3.200	4.600	3,300	3,100	2017	1,900	5,880	966	729
Wyndmoor	1.000	1.930	200	155	2018	1,900	5,880	966	729
Lower Merion	14.500	31.570	7,250	6,871	2019	1,900	5,880	966	729
Delcora	50.000	155.000	19,487.0	21,771.0	2020	1,900	5,880	966	729
Upper Darby	17.000	35.000	7,348.5	6,831.0	2021	1,900	5,880	966	729
Abington	4.453	9.542	2,481.0	2,102.0	2022	1,900	5,880	966	729
Bensalem	6.133	11.740	3,734	5,340	2023	1,900	5,880	966	729
Bucks County	24.000	74.260	13,400	13,400	2024	1,900	5,880	966	729
Cheltenham	13.4101	31.750	#N/A	#N/A	2025	1,900	5,880	966	729
Lower Moreland	1.900	5.880	966	729	2026	1,900	5,880	966	729
Lower Southampton	7.140	15.790	6,000	5,500	2027	1,900	5,880	966	729
					2028	1,900	5,880	966	729
NA - Not Available					2029	1,900	5,880	966	729
Reference: Existing Wholesale Contract Agreements					2030	1,900	5,880	966	729
					2031	1,900	5,880	966	729
					TY 2019	1,900	5,880	966	729

SCOS17_19.XLS

PLTDES

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PltDesInd - Index	P.N. 135647.0100	February 11, February 11, 2018 9:00 a.m.					PltDes-1

The "PltDes" worksheet contains wastewater plant design data for the Northeast, Southwest, and Southeast treatment plants, and historical treatment plants influent flows and strengths.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
PltDesInd	Index	PltDes-1	
NEDESG	NEWPCP Design Conditions	PltDes-2	
SWDESG	SWWPCP Design Conditions	PltDes-3	
SEDESG	SEWPCP Design Conditions	PltDes-4	
WWFS	WWTP Flows & Strengths	PltDes-5	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
NEDES - NEWPCP Design Conditions	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Pltdes-2

METHOD TO ESTIMATE SLUDGE QUANTITIES AT WASTEWATER TREATMENT PLANTS WITH ACTIVATED SLUDGE TREATMENT PROCESS

Treatment Plant: NEWPCP
Assumed Year of Operation: Design Conditions
8.34 lbs/gallon

Line No.		mgd	%	mg/l	Sludge Quantities	
					ppd	%
<u>Plant Influent</u>						
1	Flow - mgd	155				
2	SS Strength - mg/l			187.00		Pltdes-5
3	BOD Strength - mg/l			145.00		Pltdes-5
4	Solid: (SS) - ppd				241,735	Line 1 x Line 2 x 8.34
<u>Primary Treatment</u>						
5	SS Removed - %		50.0			
6	SS Removed - mg/l			93.50		Line 2 x Line 5
7	BOD Removed - %		22.5			
8	BOD Removed - mg/l			32.63		Line 3 x Line 7
9	Solids Removed: SS - ppd				120,868	Line 4 x Line 5
<u>Secondary Treatment</u>						
Influent Strength						
10	SS - mg/l			93.50		Line 2 - Line 6
11	BOD - mg/l			112.37		Line 3 - Line 8
12	Solids: (SS) - ppd				120,867	Line 4 - Line 9
Solids accumulated						
13	SS - ppd				62,851	46.4 Line 12 x 0.52
14	BOD ppd				72,630	53.6 Line 11 x Line 1 x 8.34 x 0.5
15	Total - ppd				135,481	100.0 Line 13 + Line 14
<u>Plant Effluent</u>						
Solids:						
16	Assume - mg/l			30.00		
17	Total - ppd				38,781	Line 1 x 8.34 x Line 16
18	SS related - ppd				17,994	Line 13 x Line 17
19	BOD related - ppd				20,787	Line 17 - Line 18
<u>Solids to Digesters</u>						
20	SS from primary treatment- ppd				120,868	Line 9
21	SS from secondary treatment - ppd				44,857	Line 13 - Line 18
22	Total SS - ppd				165,725	76.2 Line 20 + Line 21
23	BOD - ppd				51,843	23.8 Line 14 - Line 19
24	Total Solids - ppd				217,568	100.0 Line 22 + Line 23
25	Dry Solids Concentration - %		4.2			
26	Volume - mgd	0.62113				Line 24 / (Line 25 x 8.34 x 1mil)
27	Volatile Solids - ppd				165,980	Line 9 x 0.8 + Line 21 x 0.62 + Line 23 x 0.8
28	Volatile Solids - %		76.29			100 x Line 27 / Line 24
29	Fixed Solids - ppd				51,588	Line 24 - Line 27

<u>Solids from Digesters</u>				
	Volatile Solids			
30	VSS Destroyed - ppd		92,926	Line 9 x 0.46 + line 23 x 0.72
31	VSS Remaining - ppd		73,054	Line 27 - Line 30
32	Total Solids - ppd		124,642	Line 29 + Line 31
33	Dry Solids Concentration - %			
34	Volume - mgd	0.55352		Line 32 / (Line 33 x 8.34 x 1mil)

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
SWDESG - SWWPCP Design Conditions	P.N. 135647.0100	February 11, February 11, 2018 9:00 a.m.			PltDes-3

METHOD TO ESTIMATE SLUDGE QUANTITIES AT WASTEWATER TREATMENT PLANTS WITH ACTIVATED SLUDGE TREATMENT PROCESS

Treatment Plant: SWWPCP
Assumed Year of Operation: Design Conditions

Line No.		Sludge Quantities				
		mgd	%	mg/l	ppd	
<u>Plant Influent</u>						
1	Flow - mgd	160				
2	SS Strength - mg/l			167.00		PltDes-5
3	BOD Strength - mg/l			121.00		PltDes-5
4	Solid: (SS) - ppd				222,845	Line 1 x Line 2 x 8.34
<u>Primary Treatment</u>						
5	SS Removed - %		45			
6	SS Removed - mg/l			75.15		Line 2 x Line 5
7	BOD Removed - %		25.00			
8	BOD Removed - mg/l			30.25		Line 3 x Line 7
9	Solids Removed: SS - ppd				100,280	Line 4 x Line 5
<u>Secondary Treatment</u>						
Influent Strength						
10	SS - mg/l			91.85		Line 2 - Line 6
11	BOD - mg/l			90.75		Line 3 - Line 8
12	Solids: (SS) - ppd				122,565	Line 4 - Line 9
Solids accumulated						
13	SS - ppd				63,734	51.3 Line 12 x 0.52
14	BOD ppd				60,548	48.7 Line 11 x Line 1 x 8.34 x 0.5
15	Total - ppd				124,282	100.0 Line 13 + Line 14
<u>Plant Effluent</u>						
Solids:						
16	Assume - mg/l			30.00		
17	??? - ppd				40,032	Line 1 x 8.34 x Line 16
18	SS related - ppd				20,536	Line 13 x Line 17
19	BOD related - ppd				19,496	Line 17 - Line 18
<u>Solids to Digesters</u>						
20	SS from primary treatment - ppd				100,280	Line 9
21	SS from secondary treatment - ppd				43,198	Line 13 - Line 18
22	Total SS - ppd				143,478	77.8 Line 20 + Line 21
23	BOD - ppd				41,052	22.2 Line 14 - Line 19
24	Total Solids - ppd				184,530	100.0 Line 22 + Line 23
25	Dry Solids Concentration - %		4.00			
26	Volume - mgd	0.55315				Line 24 / (Line 25 x 8.34 x 1mil)
27	Volatile Solids - ppd				139,848	Line 9 x 0.8 + Line 21 x 0.62 + Line 23 x 0.8
28	Volatile Solids - %		75.79			100 x Line 27 / Line 24
29	Fixed Solids - ppd				44,682	Line 24 - Line 27

<u>Solids from Digesters</u>				
	Volatile Solids			
30	VSS Destroyed - ppd		75,686	Line 9 x 0.46 + line 23 x 0.72
31	VSS Remaining - ppd		64,162	Line 27 - Line 30
32	Total Solids - ppd		108,844	Line 29 + Line 31
33	Dry Solids Concentration - %			
34	Volume - mgd	0.43503	3.00	Line 32 / (Line 33 x 8.34 x 1mil)

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
SEDESG - SEWPCP Design Conditions	P.N. 135647.0100	February 11, February 11, 2018 9:00 a.m.			Pltdes-4

METHOD TO ESTIMATE SLUDGE QUANTITIES AT WASTEWATER TREATMENT PLANTS WITH ACTIVATED SLUDGE TREATMENT PROCESS

Treatment Plant: SEWPCP
Assumed Year of Operation: Design Conditions

Line No.		Sludge Quantities				
		mgd	%	mg/l	ppd	
<u>Plant Influent</u>						
1	Flow - mgd	77				
2	SS Strength - mg/l			146.00		Pltdes-5
3	BOD Strength - mg/l			114.00		Pltdes-5
4	Solid: (SS) - ppd				93,758	Line 1 x Line 2 x 8.34
<u>Primary Treatment</u>						
5	SS Removed - %		55.00			
6	SS Removed - mg/l			80.30		Line 2 x Line 5
7	BOD Removed - %		40.00			
8	BOD Removed - mg/l			45.60		Line 3 x Line 7
9	Solids Removed: SS - ppd				51,567	Line 4 x Line 5
<u>Secondary Treatment</u>						
Influent Strength						
10	SS - mg/l			65.70		Line 2 - Line 6
11	BOD - mg/l			68.40		Line 3 - Line 8
12	Solids: (SS) - ppd				42,191	Line 4 - Line 9
Solids accumulated						
13	SS - ppd				21,939	50.0 Line 12 x 0.52
14	BOD ppd				21,963	50.0 Line 11 x Line 1 x 8.34 x 0.5
15	Total - ppd				43,902	100.0 Line 13 + Line 14
<u>Plant Effluent</u>						
Solids:						
16	Assume - mg/l			30.00		
17	??? - ppd				19,265	Line 1 x 8.34 x Line 16
18	SS related - ppd				9,633	Line 13 x Line 17
19	BOD related - ppd				9,632	Line 17 - Line 18
<u>Solids to Digesters</u>						
20	SS from primary treatment- ppd				51,567	Line 9
21	SS from secondary treatment - ppd				12,306	Line 13 - Line 18
22	Total SS - ppd				63,873	83.8 Line 20 + Line 21
23	BOD - ppd				12,331	16.2 Line 14 - Line 19
24	Total Solids - ppd				76,204	100.0 Line 22 + Line 23
25	Dry Solids Concentration - %		4.00			
26	Volume - mgd	0.22843				Line 24 / (Line 25 x 8.34 x 1mil)
27	Volatile Solids - ppd				58,748	Line 9 x 0.8 + Line 21 x 0.62 + Line 23 x 0.8
28	Volatile Solids - %		77.09			100 x Line 27 / Line 24
29	Fixed Solids - ppd				17,456	Line 24 - Line 27

		<u>Solids from Digesters</u>			
		Volatile Solids			
30	VSS Destroyed - ppd		32,599		Line 9 x 0.46 + line 23 x 0.72
31	VSS Remaining - ppd		26,149		Line 27 - Line 30
32	Total Solids - ppd		43,605		Line 29 + Line 31
33	Dry Solids Concentration - %			3.00	
34	Volume - mgd	0.17428			Line 32 / (Line 33 x 8.34 x 1mil)

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
WWFS - WWTP Flows & Strengths	P.N. 135647.0100	February 11, February 11, 2018 9:00 a.m.			PltDes-5

HISTORICAL WASTEWATER TREATMENT PLANT FLOWS & STRENGTHS

Arithmetic Averages	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Simple Average			Weighted Average			Current Study
											All Data	Last 3 Years	Last 2 Years	All Data	Last 3 Years	Last 2 Years	
Northeast Plant																	
	BD-25	BD-25		BD-26a	BD-26a												
Influent Flow - mgd	160	176	177	162	182	156	174	162	148		166	161	155				155
Influent SS - mg/l	232	232	234	220	219	243	232	187	187		221	202	187	221	203	187	187
Influent BOD - mg/l	156	172	156	162	142	161	149	145	146		154	147	146	154	147	145	145
Southwest Plant																	
Influent Flow - mgd	174	164	184	162	181	162	176	165	155		169	165	160				160
Influent SS - mg/l	151	169	149	163	156	168	161	172	162		161	165	167	161	165	167	167
Influent BOD - mg/l	121	128	107	119	105	112	108	118	125		116	117	122	116	117	121	121
Southeast Plant																	
Influent Flow - mgd	81	83	92	86	76	77	80	78	75		81	78	77				77
Influent SS - mg/l	166	154	136	149	130	141	142	142	150		146	145	146	145	145	146	146
Influent BOD - mg/l	106	104	95	102	116	113	106	105	124		108	112	115	108	111	114	114

SCOS17_19.XLS PLANT

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PlantInd - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Plant-1

Fixed Asset Listing as of date 6/30/2016

Range	Description	Page Number	Table
PlantInd	Index		Plant-1
PLTFUNC	Plant Functions		Plant-2
NEPA1	NE Plant Assets (Non-WPAP) as of 6/30/2016		Plant-3
NEPA2	NE Plant Assets (WPAP) as of 6/30/2016		Plant-4
SWPA1	SW Plant Assets (Non-WPAP) as of 6/30/2016		Plant-5
SWPA2	SW Plant Assets (WPAP) as of 6/30/2016		Plant-6
SEPA1	SE Plant Assets (Non-WPAP) as of 6/30/2016		Plant-7
SEPA2	SE Plant Assets (WPAP) as of 6/30/2016		Plant-8
SPLTFNC	All Plants - Assets by Plant Function as of 6/30/2016		Plant-9
SLOCID	All Locations - Total Assets by Location ID as of 6/30/2016		Plant-10
XXXXX	PAGE NOT IN USE		Plant-11
SFAL	Summary of Fixed Asset Listing Control Totals as of 6/30/2016		Plant-12

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PLTFUNC - Plant Functions	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Plant-2

Reference:

<u>Plant Function Description</u>	<u>Plant Function ID</u>	<u>Plant Function Description</u>	<u>Plant Function ID</u>
NE Grit Chamber	66	SW Elevated Water Tank	104
NE Pumping Station	67	SW Dewatering Facilities	105
NE Services Building	68	SW General Improvements	106
NE Meters, Vaults and Connection Sewers	69	SW Site	107
NE Settling & Aeration Tanks	70	SW Compressor Bldg.	108
NE Blower Bldg., Supernat. Tank, Scum Eje	71	SW Aeration Tanks	109
NE Sludge Digestion System	72	SW Sedimentation Tanks	110
NE Sludge Dewatering	73	SW Electrical Bldg.	111
NE Lagoons	74	SW Oxygen Supply	112
NE Locker Bldg.	75	SW Effluent PS	113
NE Chlorination Facilities	76	SW Admin. Bldg.	114
NE Admin. Bldg.	77	SW Shop & Maintenance Bldg.	115
NE Heating Plant	78	SW Warehouse	116
NE Electrical Substation	79	SW Primary Sedimentation Tanks	117
NE Sludge Incinerators	80	SW Preliminary Treatment Building	118
NE Site	81	SW Influent PS	119
NE Sludge Residue Fusion Plant	82	SW Scum Concentration Bldg.	120
NE Aeration Tank No. 1	83	SW Sludge Thickener Bldg.	121
NE Prelim. Treatment Bldg.	84	SW Sludge Digestion Facilities	122
NE Elect. Bldg.	85	SW Composting Facilities	123
NE Primary Sedimentation Tanks	86	SW Sludge Gas Facilities	124
NE Final Sedimentation Tanks	87	SW Outfall Line	125
NE Effluent Conduit	88	SE Main PS	126
NE Sludge Thickener Bldg.	89	SE Screen, Admin, Garage, Mach. Shop, Grit, Chmbr	127
NE Sludge Transfer Station, Proc. & Loadin	90	SE Settling Tanks & Flocculation Channel	128
NE Barges	91	SE Grease Bldg.	129
NE Engineering, Design	92	SE Blower & Primary Sludge PS	130
SW Screen, Blower, Prim. Sludge PS, Grit	93	SE Storage Bldg.	131
SW Grease Burner	94	SE Sludge Force Main to SW Plant	132
SW Settling Tanks	95	SE Main Effluent Conduit	133
SW Sludge Handling & Machine Shop	96	SE Influent PS	134
SW Sludge Digestion	97	SE Effluent PS	135
SW Belt Filter System	98	SE Aeration Tanks	136
SW Chlorination Facilities	99	SE Compressor Bldg.	137
SW Office & Equip. Building	100	SE Site	138
SW Sludge Disposal	101	SE Primary Sedimentation Tanks	139
SW Electrical Substation	102	SE Final Sedimentation Tanks	140
SW Waste Gas Burner	103	SE Scum Concentration Facility	141

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a	
NEPA1 - NE Plant Assets (Non-WPAP) as of 6/30/2016		P.N. 135647.0100		February 11, 2018 9:00 a.m.						Plant-3	
Reference: PWD 2017 Assets.xls											
Year	Month	Depot	Work Order	Non-WPAP	Plant Function ID	Description	Cost				
							\$				
1996	6	54	1698-1-54	0	81	GALLERYLIGHTING IMP	4,745				
1996	6	54	2897-1-54	0	81	INST TANKMONITORING/LEAKDETE	53,126				
1997	6	54	3038-2-54	0	81	ASBESTOS REMOVAL & REPLCEILIN	33,289				
2001	2	54	70001-1-54	0	81	ACCESS CONT&ALARMSYS	1,252,847	Projects added since the 1999 FAL.			
1998	2	54	70002-1-54	0	81	PERIMETERCHAINLINK FENCE	900,520				
1999	6	54	70003-1-54	0	81	HIGH MASTLIGHTING SYS OVERHAU	112,062				
2000	3	54	70003-4-54	0	81	HIGH MSATLIGHTING SYS OVERHAU	68,215	Projects added since the 1999 FAL.			
1999	6	54	71000-1-54	0	86	REHABPRIMARY&FINALTKS	2,965,842	Projects added since the 1999 FAL.			
1999	6	54	71000-1-54	0	87	REHABPRIMARY&FINALTKS	2,965,842	Projects added since the 1999 FAL.			
2002	4	54	71001-1-54	0	78	REPL TWO 600 HPBOILERS	1,279,843	Projects added since the 2002 FAL.			
2000	3	54	71002-1-54	0	84	REPL INFLUENTBARSSCREEN	0	Projects added since the 1999 FAL. / Retired 2016			
1999	9	54	71003-1-54	0	72	REPL OFSLUDGE GAS BURNERS	447,957	Projects added since the 1999 FAL.			
2013	4	54	71004-1-54	0	72	DEMOL - 6 OLD DIGESTERS-NEWPCP-GEN C	5,332,099				
2013	4	54	71005-1-54	0	72	DEMOL - 6 OLD DIGESTERS-NEWPCP-MECH	319,355				
1998	1	54	71007-1-54	0	81	POLYURETHANE SILICONEROOF	156,439				
2010	6	54	71007-2-54	0	81	**POLYURETHANE SILICONEROOF **	708				
1998	11	54	71008-1-54	0	81	RESTOR WROUGHT IRONPICKET FEN	79,390	Projects added since the 1999 FAL.			
2000	10	54	71010-1-54	0	81	REPL LOW/VOLTSWITCHGEAR/TRIP	1,190,631	Projects added since the 1999 FAL.			
2001	11	54	71011-1-54	0	73	GENCONST-RENOVBELT FILTERBL	507,460	Projects added since the 2002 FAL.			
2001	4	54	71012-1-54	0	73	MECH-RENOV BELTFILTER BLDG	136,495	Projects added since the 1999 FAL.			
2001	10	54	71013-1-54	0	73	ELECT-RENOVBELT FILTERBLDG	177,388	Projects added since the 1999 FAL.			
2003	4	54	71015-1-54	0	89	MECH-DISSOLVED AIR FLOTATION S	2,223,714				
2004	10	54	71016-1-54	0	78	CONST OLD HEAT PLT TO OFFICES	735,945				
2005	4	54	71017-1-54	0	77	CONV/OFFICES-DEM/INSTL HVAC	280,674				
2006	1	54	71018-1-54	0	77	ELEC OLD HEATING PKT TO OFFICE	215,255				
2006	7	54	71019-1-54	0	78	ELECTR CONVERSION OLD HEATING PLNT	489,411				
2002	3	54	71020-1-54	0	78	ROOFING-OLDHEATER BLDG	296,593	Projects added since the 2002 FAL.			
2002	1	54	71021-1-54	0	89	ELECT-IMPDISSOLVAIRFLOTATIO	322,286	Projects added since the 2002 FAL.			
2002	3	54	71022-1-54	0	72	MECH-REHAB DIGESTERVALVES	378,051	Projects added since the 2002 FAL.			
2002	3	54	71023-1-54	0	84	HVAC IMP-PRELTREATBLDG	751,105	Projects added since the 2002 FAL.			
2006	6	54	71024-1-54	0	76	CONST SOD HYPOCHLORITE FAC	1,486,734				
2004	7	54	71025-1-54	0	76	CONST-SODHYPOCHLORITE FAC	2,327,442				
2006	7	54	71026-1-54	0	76	ELECTR SODHYDRO FACILITIES -NORTHEA	466,995				
2004	10	54	71027-1-54	0	76	HVAC SOD HYPOCHLORITE	443,921				
2004	1	54	71028-1-54	0	76	PLUMB-SODHYPOCHLORITE FAC	52,351				
2000	10	54	71029-1-54	0	83	RBCDEMPROJECT-PHASEI	425,719	Projects added since the 1999 FAL.			
2002	1	54	71031-1-54	0	72	ELECT-REHABDIGESTER VALVES	154,344	Projects added since the 2002 FAL.			
2001	2	54	71032-1-54	0	81	EMERGREPL GLYCOLLINES	151,090	Projects added since the 1999 FAL.			
2007	4	54	71033-1-54	0	70	General CON. FOR AERATION SYSTEM REHA	12,188,401				
2003	11	54	71035-1-54	0	66	REPL MECHBARSSCREEN	419,023				
2004	10	54	71036-1-54	0	77	Rehab Masonry Walls, Roofing St	665,939				
2006	4	54	71037-1-54	0	72	DIGESTER GAS PIPEING REPL	1,338,268				
2005	9	54	71038-1-54	0	67	MOTOR CONT REPL STGE 1 PUMP 1&2	415,308				
2005	2	54	71039-1-54	0	80	HEAT EXCHANGER REPL DIGESTOR	1,503,027				
2008	7	54	71041-1-54	0	78	ELECTICAL HVAC IMPROVEMENTS	226,005				
2004	5	54	71042-1-54	0	87	REHABFINALSERTANKS	2,108,718				
2006	11	54	71043-1-54	0	92	UPGRADE SCADA SYTM PHASE I- NORTHEA	543,748				
2007	7	54	71044-54	0	66	REHAB. OF GRIT CHANNEL AERATION SYS	1,050,501				
2007	7	54	71045-1-54	0	91	REHAB. OF PIER 217 N. AT NORTHEAST WA	2,579,845				
2005	3	54	71046-1-54	0	78	REPL NATURAL GAS PIPE VAR LOC	423,402				
2006	3	54	71047-1-54	0	66	REPL MECHANICAL BAR SCREENS	2,540,493				
2007	5	54	71048-1-54	0	66	ELECTR WORK- REPLACE MECHAN BAR SC	336,978				
2010	6	54	71049-1-54	0	66	Screenings Conveyor modifications	2,190,676				
2009	7	54	71050-1-54	0	66	Screenings Conveyor Modifications -Electrical	565,562				
2009	1	54	71053-1-54	0	91	Rehab of Pier 217	759,892				
2010	4	54	71054-1-54	0	89	R/R Replacement of DAF Floated Sludge Pumps &	1,327,802				
2010	2	54	71060-1-54	0	72	Gas Storage Tank Inspection and Bladder replacem	1,325,070				
2010	10	54	71061-1-54	0	71	Replace Existing Blower Building Switchgear	2,698,751				
2010	1	54	71062-1-54	0	85	Power Distribution System Study	589,603				
2007	3	54	71074-1-54	0	77	R/R-REHAB OUT BLDG.REPLACE DOORS TH	328,352				
1987	10	54	BN74121-1-54	0	81	RELOCATE TELEPHONE CABLE ETC.	28,872				
1988	6	54	G639-1-54	0	77	ALTERELEC-SERVICES&ADMBLDG	11,928				
1988	6	54	G679-1-54	0	90	SLUDGE CAKESTAGINGPAD	0	Retired			
1988	6	54	G683-1-54	0	86	ADDNLLIGHTING ATPRIM SED TNK	13,562				
1996	6	54	G684-1-54	0	67	GENCONVERSION-PSSTO STORAGE B	48,789				
1996	6	54	G689-1-54	0	86	REHABOZONESYSIN PRIMSEDBA	0	Retired			
1997	6	54	G689-2-54	0	86	REHABOZONESYSIN PRIMSEDBA	0	Retired			

1996	6	54	G692-1-54	0	80	MODINCINERATORCONTROLROOM	19,098	
1996	6	54	G695-1-54	0	88	INSTLBARSREENS-EFFLUENT CON	0	Retired
1992	1	54	G698-1-54	0	69	ODOR CTRL&KNIFEGATE VALVES	0	Retired
1993	6	54	G700-1-54	0	81	GENCONST-EQUIPSTOR BLDG/YARD	1,686,340	
1994	12	54	G700-2-54	0	81	GENCONST-EQUIPSTORAGEBLDG	38,853	
1993	6	54	G701-1-54	0	81	MECH WORK-EQUIPSTOR BLDG/YARD	101,500	
1995	1	54	G701-2-54	0	81	MECH-EQUIP STORAGE BLDGOUTDOO	13,593	
1993	6	54	G702-1-54	0	81	ELEC WORK-EQUIPSTOR BLDG/YARD	136,359	
1996	6	54	G702-2-54	0	81	ELECT-EAUIPSTORAGEBLDG OUTDO	15,225	
1991	10	54	G705-1-54	0	72	CATWALKDIGESTER GAS STORAGE	340,721	
1997	6	54	G705-2-54	0	72	CATWALKDIGESTER GAS STORAGE	121	
1995	6	54	G709-1-54	0	86	REPL METAL DOORS-PRIMSEDTNKS	197,206	
1991	8	54	G712-1-54	0	69	EMERGGEN-JUNCTION CHAMBER A	67,117	
1996	6	54	G712-2-54	0	69	EMERGGEN-JUNCTION CHAMBER A	736	
1997	6	54	G712-3-54	0	69	EMERGGENJUNCTION CHAMBER A	78	
1991	1	54	G717-1-54	0	66	REHABGRIT REMOVERS, GRITPUMP	371,999	
1991	12	54	G719-1-54	0	66	NEWGRIT STORAGE	0	Retired
1996	6	54	G719-2-54	0	66	NEWGRIT STORAGE	0	Retired
1992	3	54	G722-1-54	0	77	STORAGEFACIL-OLDADMINBLDG	0	Expired noted 2011
1982	9	54	MP30091-1-54	0	84	ENGR SERVICES-PRELIM TREAT BLD	807	
2003	6	54	MP389-1-54	0	92	G&HENG-INSTRU TROUB/SHOOTING	2,372	Projects added since the 2002 FAL.
1996	6	54	N542-1-54	0	87	GREASE REMOVAL-TREAT FINAL TAN	5,242	
1996	6	54	N544-1-54	0	77	GENCONST/MECH-ADMIN COMPLEX P	265,417	
1996	6	54	N545-1-54	0	77	HVAC-ADMIN COMPLEX PHASE I	32,401	
1996	6	54	N546-1-54	0	77	PLUMB- ADMIN COMPLEX PHASE I	17,909	
1996	6	54	N547-1-54	0	77	ELECT- ADMIN COMPLEX PHASE I	26,652	
1996	6	54	N570-1-54	0	81	GENCONST/MECH-ELECT FAC MOD	26,041	
1996	6	54	N598-1-54	0	69	GEN-METERVAULTS/SEWERS-PHII	11,066	
1990	6	54	N651-1-54	0	81	ELEC CONST-NEDRAINAGE DIST	1,306,058	
1990	10	54	N651-2-54	0	81	ELEC CONST-NEDRAINAGE DIST	55,962	
1996	6	54	N653-1-54	0	81	GENCONST-MAINTENANCEBLDG	28,462	
1996	6	54	N656-1-54	0	81	ELECT-MAINTENANCEBLDG	15,988	
1996	6	54	N663-1-54	0	69	ELECT-MODMETERING CHAMBER	24,333	
1997	6	54	N663-2-54	0	69	ELECT-MODMETERING CHAMBER	243	
1996	6	54	N664-1-54	0	81	LANDSCAPING&MISC WORK	7,101	
1997	6	54	N664-2-54	0	81	LANDSCAPING&MISC WORK	487	
2000	6	54	N668-6-54	0	81	HEAT_VENT SLUDGETRFSTAT	4,303	Projects added since the 1999 FAL.
1997	6	54	N697-1-54	0	81	DEMOLITION	1,143,013	
1997	6	54	N703-1-54	0	86	GENCONST-EXISTPRIM SED TAN	19,748,781	
1997	6	54	N704-1-54	0	86	MODELECTRIC PRIMSED TANKS	1,923,145	
1997	8	54	N713-1-54	0	79	INSTLNEWOUTDOORSUBSTATION	1,119,930	
1997	6	54	N714-1-54	0	86	MODHVAC PRIMARY SED TANKS	232,661	
1997	6	54	N715-1-54	0	86	MODPLUMBING PRIMSED TANKS	179,669	
1995	1	54	N724-1-54	0	81	MOD-48 INAIRHEADER	188,046	
1993	6	54	N727-1-54	0	81	ERECTING 2 VENTILATING STACKS	373,670	
1995	11	54	N728-1-54	0	81	INSTAL 730 HPBOILER	462,655	
1995	5	54	N729-1-54	0	69	RELOCOF RPZ BACKFLOWPRE	92,247	
1995	11	54	N730-1-54	0	77	REHABHVAC-OLD ADMIN BLDG	289,374	
1995	3	54	N731-1-54	0	86	INSTAL HVAC-PRIM SED TANKS	36,574	
1995	2	54	N734-1-54	0	72	REHABSLUDGE GAS STORAGE TANK	404,921	
1996	6	54	N735-1-54	0	81	FURN & INSTALSTORAGEFAC-STOR	86,242	
1996	1	54	N737-1-54	0	87	FLOW CONTROL FINAL SED TANKS	331,671	
1997	6	54	N740-1-54	0	72	REHABSLUDGE DIG MIX RECIR SYS	0	Retired
1995	11	54	N741-1-54	0	89	ROOF-POLYSILICONE-SLUDTHICK	401,695	
1995	5	54	N742-1-54	0	72	POLY SILICONEROOF-SLUDDIGEST	739,036	
1997	7	54	N748-1-54	0	81	NEWALUMINUM WINDOWS	437,961	
1998	6	54	P1051-1-54	0	86	ENGR-REHAB PRIMSED TANKS	0	Retired 2017
1998	6	54	P1148-1-54	0	66	MODGRIT.SCREENINGS,&SCUM D	0	Retired 2017
2000	6	54	P1148-4-54	0	66	MODGRIT.SCREENINGS,SCUM DISP	0	Retired 2017
2002	6	54	P1148-5-54	0	66	MODGRIT.SCREENINGS,SCUM DISP	0	Retired 2017
2001	6	54	P1198-2-54	0	76	ENGDESIGN SERV SODHYPOCHLORI	8,594	Partial Retirement in 2017
2004	6	54	P1198-3-54	0	76	ENGDESIGN SERV SODHYPOCHLORI	1,766	Partial Retirement in 2017
2001	6	54	P1220-1-54	0	92	ENGSER-EVAL HVACEQUIPSLDTH	210,090	Partial Retirement in 2017
2004	6	54	P1220-3-54	0	89	EV AL HVACEQUIPSLUD THICK BLD	310,276	
2002	6	54	P1225-4-54	0	92	ENGSERV-METCALF & EDDY	59,718	Partial Retirement in 2017
2005	6	54	P1225-8-54	0	72	REPL SLUDGE GASPING	0	
2002	6	54	P1227-1-54	0	83	AERATION SYS REHAB,AIR PIPE,AP	466,453	Partial Retirement in 2017
2004	6	54	P1227-2-54	0	70	PROCESS AIR PIPE, APPURT, SUPPORT..	66,018	
2004	6	54	P1227-3-54	0	70	REHABAERATION SYS.DISPRBC''	300,748	
2004	9	54	P1227-4-54	0	66	SCREENINGS CONVEYOR MODIFICATIONS	24,114	
2000	9	54	P1240-2-54	0	92	G&H-ADD''LENGDESIGN SERVIC	0	Retired 2017
1972	5	54	P-295-3-54	0	92	ENGR SERVICES	0	Retired 2017
1971	10	54	P-307-1-54	0	92	SOIL&FDN INVES NEWPC	6,500	

1983	6	54	P311916-1-54	0	81	RELOCATE,REROUTE CABLE FACILIT	0	Retired 2017
1980	1	54	P-325-1-54	0	92	ENGR SERVNEWPCP	2,494,176	Partial Retirement in 2017
1990	6	54	P-325-1N-54	0	92	ENGR SERVICE - DETAILDISIGN	11,210,614	Partial Retirement in 2017
1976	1	54	P-325-1NN-54	0	92	ENGR SERVICES-NEWWPC	546,533	Partial Retirement in 2017
1974	2	54	P-325-2-54	0	92	DETAILED DSGNNEWPCP	447,163	Partial Retirement in 2017
1991	6	54	P-325-2N-54	0	92	ENGR SERVICE - DETAILDESIGN	55,232	Partial Retirement in 2017
1979	6	54	P-325-3-54	0	92	DETAIL DESIGN	1,813,495	Partial Retirement in 2017
1992	6	54	P-325-3N-54	0	92	ENGR SERVICE - DETAILDESIGN	68,480	Partial Retirement in 2017
1993	6	54	P-325-4-54	0	92	ENGR SERVICE - DETAILDESIGN	574,244	Partial Retirement in 2017
1974	11	54	P-325-4N-54	0	92	DESIGN NEWPCP	447,163	Partial Retirement in 2017
1997	6	54	P-325-5-54	0	92	ENGR SERVICE-DETAILDESIGN	129,218	Partial Retirement in 2017
1997	6	54	P-325-6-54	0	92	ENGSERVICE-DETAIL DESIGN	112,841	Partial Retirement in 2017
1973	10	54	P-356-1-54	0	92	DESIGN STUDS FOR WPC	29,401	
1980	8	54	P-467-1-54	0	77	MODIFY SERVICES&ADMINBLDGS	0	Retired 2017
1987	4	54	P-514-1-54	0	77	CPMSCHEDULING SERVICES	402,158	
1985	6	54	P-572-1-54	0	81	PLANSMAINTSHOP & REVIEWWARE	0	Retired 2017
1984	1	54	P-583-1-54	0	87	VALU ENGR-MODEXISTFINSEDTK	0	Retired 2017
1986	6	54	P-614-1-54	0	92	VALU ENGR-MODSLDG DGST&NU DEW	0	Retired 2017
1991	6	54	P-667-1-54	0	77	ENGR-CONST.START UPCOMPUTER M	1,001,217	
1992	6	54	P-667-2-54	0	77	ENGR-CONST.START UPCOMPUTER M	271,196	
1993	4	54	P-667-3-54	0	77	ENGR-CONST.START UPCOMPUTER M	352,528	
1997	6	54	P-667-4-54	0	77	ENG-CONST.STARARTUP COMPUTER	419,208	
1998	6	54	P-667-5-54	0	77	ENG-CONST. START-UPCOMPUTER	9,229	
1991	6	54	P-674-1-54	0	73	ENGR SERVFORCONSTDEWTRFAC	1,523,193	
1998	12	54	P-674-2-54	0	73	ENGR SERVFORCONSTDEWTRFAC	5,696	
1991	8	54	P-683-1-54	0	81	LANDSCAPECONSULTANT	0	Retired 2017
1989	3	54	P-690-1-54	0	73	MODIFY SLUDGEDEWATERING FAC	0	Retired 2017
1990	6	54	P-703-1-54	0	90	ENGR SERVSLDG TRANS & DOCKING	0	Retired 2017
1993	10	54	P-703-2-54	0	92	ENGR SERVSLDG TRANS & DOCKING	0	Retired 2017
1990	6	54	P-704-1-54	0	90	DESIGN SLUDGETRANSFER STATION	275,979	
1991	6	54	P-736-1-54	0	77	ENGR SERVUPDATE COMPUTERSPEC	0	Retired 2017
1996	6	54	P-769-1-54	0	86	ENGR DESIGN&CONSTPRIMARYTANK	1,644,907	
1996	6	54	P-834-1-54	0	77	ENGSERV-PROGAPPL SOFTWAREMO	0	Retired 2017
1990	2	54	P-858-1-54	0	92	VALUEENGR MODIFYSLUDGE FACIL	0	Retired 2017
1997	6	54	P-861-1-54	0	72	FINALDESIGN 2 SLUDGEISGSTRS	0	Retired 2017
1999	7	54	P-967-1-54	0	92	ENGSERV-VARIOUS PROJECTS	37,832	Projects added since the 1999 FAL.
1986	12	54	PV02181-1-54	0	81	GRAD,PAVE,LANDSCAPE,YARD PIPIN	6,294	
1986	12	54	PV05126-1-54	0	81	GRAD,PAVE,LANDSCAPE,YARD PIPIN	63,584	
1983	2	54	PV42977-1-54	0	81	ELESERV SPL DEL PT-3030 LEWIS	273,213	
1986	6	54	PV46861-1-54	0	81	GRAD,PAVE,LANDSCAPEETC	12,448	
1986	6	54	PV61994-1-54	0	81	GRAD,PAVE,LANDSCAPEETC.	10,975	
1965	5	54	SD-323-NE-4-54	0	69	48IN CIDR LINE	70,551	
1964	5	54	SD-353-NE-1-54	0	81	PLUMBING&HEATING FOR WAREHOUSE	30,546	
1967	8	54	SD-376-NE-2-54	0	81	STEEL"H"PILES	22,790	
1967	8	54	SD-376-NE-3-54	0	68	CONSTRUC OFSERV BLD	289,605	
1971	6	54	SD-426-NE-4-54	0	77	ADDDTO ADMIN BLDG	348,685	
1972	5	54	SD-427-NE-1-54	0	77	MISC ITEMS	4,042	
1972	5	54	SD-427-NE-3-54	0	81	PNRDIST&OTDRLGTSY	100,073	
1971	5	54	SD-429-NE-1-54	0	77	PLMB SYS-ADMIN BLDG	75,463	
2006	0	54	SD-601-NEO-1-54	0	81	CONV BLDG-INTERCEPTH	52,586	x
2007	0	54	SD-602-NEO-1-54	0	81	CONV BLDG-INTERCEPTH	26,430	x
2007	0	54	SD-603-NEO-1-54	0	81	CONV BLDG-INTERCEPTH	13,677	x
2007	6	54	V68104662-1-54	0	77	REPL PIPES FOR FUEL TANKS	0	Retired
2007	0	54	W702-2-54	0	81	REDECK PIERS-LOADING TERMINAL	185,575	Projects added since the 1999 FAL.
2006	7	54	64006-54	0	78	ELECTR CONVERSION OLD HEATING PLNT	0	x
2010	6	54	71049-1-54	0	66	Screenings Conveyor modifications	1,390	x
2011	11	54	71059-54	0	92	UPGRADE SCADA SYTM PHASE I-NEWPCP	4,384,947	x
2013	5	54	71064-54	0	91	Barge Rehab-NEWPCP	2,937,985	x
2014	6	54	71065-54	0	81	R/R REPLACE EXISTING FST SET 1 RET SLUI	6,213,481	x
2005	6	54	P1225-10-54	0	72	**REPL SLUDGEASPING **	0	Retired
2016	6	54	71049-54	0	66	Screenings Conveyor modifications	8,808	
2015	6	54	71054-54	0	89	R/R Replacement of DAF Floated Sludge Pumps &	499	
2016	3	54	71063-54	0	81	Redirection of Area Drains at St Depart from outfal	1,749,367	
2013	10	54	71066-54	0	79	REPLACEMENT 15KV PRIMARY SWITCHGE.	2,788,851	
2015	6	54	71069-54	0	87	MODIFICATION TO SET 2 AT FINAL SEDIME	0	
2016	1	54	71084-54	0	83	REPLACEMENT 480V OUTDOOR SWITCHGE	1,518,784	
2014	7	54	71103-1-54	0	77	**POLYURETHANEELASSILICONEATRENEV	261,137	
2007		54	71034-1-54	0	83	ELECTRICAL WORK FOR AERATION SYSTE	1,047,512	
		54	P1225-11-54	0	90	**REPL SLUDGEASPING **	60,994	Partial Retirement in 2017
-	-	54		0	77	General Plant	5,498,791	x
TOTAL NE PLANT ASSETS (Non-WPAP)							151,810,542	x

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
NEPA2 - 'NE Plant Assets (WPAP) as of 6/30/2016		P.N. 135647.0100		February 11, 2018		9:00 a.m.		Plant-4		
Reference: PWD 2017 Assets.xls										
Year	Month	Depot	Work Order	WPAP	Plant Function ID	Description	Cost \$			
1987	6	54	N500-1-54	1	86	GEN CONST-PRIMARY SEDIMENT TNK	11,984,855	Value changed from 1999 FAL		
1987	6	54	N501-1-54	1	86	ELECTRIC-PRIMARY SEDIMENT TNKS	1,944,347			
1989	5	54	N501-3-54	1	86	ELECTRIC-PRIMARY SEDIMENT TNKS	22,751			
1988	6	54	N501-4-54	1	86	ELECTRIC-PRIMARY SEDIMENT TNKS	102,070			
1985	12	54	N502-1-54	1	86	PLUMB - PRIM SEDIMENTATION TKS	18,384			
1985	9	54	N502-2-54	1	86	PLUMB - PRIM SEDIMENTATION TKS	134,819			
1987	6	54	N506-1-54	1	69	GEN CONST&MECH-METER VLTS, ETC	7,462,096			
1988	3	54	N506-2-54	1	69	GEN CONST METER VLTS&CONN SEWR	140,403			
1985	12	54	N509-1-54	1	86	HVAC PRIM SEDIMENTATION TNKS	340,688			
1985	12	54	N509-2-54	1	86	HVAC PRIM SEDIMENTATION TNKS	33,695			
1987	6	54	N519-1-54	1	69	ELECTRIC-METER VLTS & CONN SEW	150,035			
1988	4	54	N519-2-54	1	69	ELECTRIC-METER VLTS & CONN SEW	5,507			
1988	6	54	N520-2-54	1	84	GEN CONST&MECH-PRELIM TREAT BL	45,726			
1993	5	54	N520-3-54	1	84	GEN CONST&MECH-PRELIM TREAT BL	363,063			
1987	6	54	N520-4-54	1	84	GEN CONST-MECH-PRELIM TREAT BL	29,129,434	Value changed from 1999 FAL		
1992	3	54	N521-2-54	1	84	HEAT&VENT-PRELIM TREATMENT BLD	96,621			
1987	6	54	N521-3-54	1	84	HEAT&VENT-PRELIM BLDG	1,451,779			
1991	6	54	N522-2-54	1	84	PLUMBING-PRELIM TREATMENT BLDG	18,031			
1987	6	54	N522-3-54	1	84	PLUMBING-PRELIM TREATMENT BLDG	318,657			
1988	3	54	N523-2-54	1	84	ELECTRIC-PRELIM TREATMENT BLDG	112,704			
1987	6	54	N523-3-54	1	84	ELECTRIC-PRELIM TREATMENT BLDG	2,074,432			
1985	9	54	N526-1-54	1	85	PLUMB - ELECTRICAL BLDG	1,829			
1988	2	54	N528-2-54	1	76	GEN CONST&MECH-CHLORINATION FA	0	Retired 2011		
1987	6	54	N528-3-54	1	76	GEN CONST&MECH-CHLORINATION FA	0	Retired 2011		
1987	6	54	N529-1-54	1	76	HEAT&VENT-CHLORINATION FACILIT	0	Retired 2011		
1987	9	54	N529-2-54	1	76	HEAT&VENT-CHLORINATION FACILIT	0	Retired 2011		
1987	4	54	N530-1-54	1	76	PLUMBING-CHLORINATION FACILITI	0	Retired 2011		
1987	6	54	N531-1-54	1	76	ELECTRIC-CHLORINATION FACILITI	0	Retired 2011		
1988	6	54	N531-2-54	1	76	ELECTRIC-CHLORINATION FACILITI	0	Retired 2011		
1988	10	54	N531-3-54	1	76	ELECTRIC-CHLORINATION FACILITI	0	Retired 2011		
1987	6	54	N532-1-54	1	71	GEN CONST-SCUM DISPOSAL FACILI	2,046,505			
1987	6	54	N533-1-54	1	71	HEAT,VENT-SCUM DISPOSAL FACILI	101,010			
1986	4	54	N534-1-54	1	71	PLUMBING - SCUM DISPOSAL BLDG	26,894			
1988	6	54	N535-1-54	1	71	ELECTRIC-SCUM DISPOSAL FACILIT	304,121			
1996	6	54	N548-1-54	1	77	GEN CON/MECH-ADMIN COMP PH II	234,980			
1996	6	54	N551-1-54	1	77	ELECT-ADMIN COMPLEX PH II	87,962			
0	0	54	N554-1-54	1	83	GEN CONST- MOD AERATION TANKS	0	This item does not appear in the 2002 FAL.		
0	0	54	N554-2-54	1	83	GEN CONST-MOD AERATION TANKS	0	This item does not appear in the 2002 FAL.		
1985	11	54	N554-3-54	1	83	GEN CONST-AERATION TANKS	16,946,922	Value changed from 1999 FAL		
1987	6	54	N555-1-54	1	83	ELECTRIC-MODIFY AERATION TANKS	2,493,868	Value changed from 1999 FAL		
1988	6	54	N555-2-54	1	83	ELECTRIC-MODIFY AERATION TANKS	67,757			
1989	2	54	N555-3-54	1	83	ELECTRIC-MODIFY AERATION TANKS	30,147			
1987	6	54	N556-1-54	1	83	STRUCT & MECH - AERATION TANKS	11,636,913	Value changed from 1999 FAL		
1988	1	54	N556-2-54	1	83	STRUCT & MECH - AERATION TANKS	12,871			
0	0	54	N556-3-54	1	83	STRUCT & MECH-AERATION TANKS	0	This item does not appear in the 2002 FAL.		
1985	9	54	N557-1-54	1	83	ELECTRICAL - AERATION TANKS	429,811	Value changed from 1999 FAL		
0	0	54	N557-2-54	1	83	ELECTRIC - AERATION TANKS	0	This item does not appear in the 2002 FAL.		
1987	8	54	N558-2-54	1	71	GEN CONST&MECH-BLOWER BLDG MOD	10,029			
1987	6	54	N558-3-54	1	71	GEN CONST&MECH-BLOWER BLDG MOD	8,343,587			
1987	6	54	N559-1-54	1	71	HEAT,VENT-BLOWER BLDG MODIFICA	230,783			
1988	6	54	N559-2-54	1	71	HEAT,VENT-BLOWER BLDG MODIFICA	16,291			
1988	9	54	N559-3-54	1	71	HEAT,VENT-BLOWER BLDG MODIFICA	4,638			
1986	6	54	N560-1-54	1	71	PLUMBING - MOD BLOWER BLDG	60,110			
1987	6	54	N561-1-54	1	71	ELECTRIC-BLOWER BLDG MODIFICAT	2,365,256			
1988	6	54	N561-2-54	1	71	ELECTRIC-BLOWER BLDG MODIFICAT	2,823			
1989	6	54	N561-3-54	1	71	ELECTRIC-BLOWER BLDG MODIFICAT	22,830			
1991	6	54	N561-4-54	1	71	ELECTRIC-BLOWER BLDG MODIFICAT	26,121			
1987	6	54	N562-1-54	1	86	GEN CONST&MECH-SEDIMENTATION T	28,103,981			
1991	6	54	N562-2-54	1	86	GEN CONST&MECH-SEDIMENTATION T	2,826			
1993	4	54	N562-3-54	1	86	GEN CONST&MECH-SEDIMENTATION T	556,474			
1987	6	54	N563-1-54	1	87	HEAT,VENT-FINAL SEDIMENTATION	319,781			
1987	11	54	N563-2-54	1	87	HEAT,VENT-FINAL SEDIMENTATION	4,380			
1987	6	54	N564-1-54	1	87	PLUMBING-FINAL SEDIMENTATION T	203,551			
1988	1	54	N564-2-54	1	87	PLUMBING-FINAL SEDIMENTATION T	8,937			
1987	6	54	N565-1-54	1	81	ELECTRIC WIRING FOR EQUIPMENT	4,126,696			
1988	6	54	N565-2-54	1	81	ELECTRIC WIRING FOR EQUIPMENT	64,915			

1989	3	54	N565-3-54	1	81	ELECTRIC WIRING FOR EQUIPMENT	18,899		
1990	6	54	N566-1-54	1	87	GEN CONST&MECH-FNL SED TKS MOD	17,765,432		
1991	6	54	N566-2-54	1	87	GEN CONST&MECH-FNL SED TKS MOD	284,895		
1992	6	54	N566-3-54	1	87	GEN CONST&MECH-FNL SED TKS MOD	39,462		
1993	9	54	N566-4-54	1	87	GEN CONST&MECH-FNL SED TKS MOD	40,178		
1990	6	54	N567-1-54	1	87	HEAT,VENT-FINAL SED TANKS MOD	227,843		
1992	10	54	N567-2-54	1	87	HEAT,VENT-FINAL SED TANKS MOD	27,011		
1990	6	54	N568-1-54	1	87	PLUMBING-FINAL SED TANKS MOD	186,968		
1991	3	54	N568-2-54	1	87	PLUMBING-FINAL SED TANKS MOD	2,839		
1997	6	54	N568-3-54	1	87	PLUMB-FINAL SED TANKS	18,287		
1990	6	54	N569-1-54	1	87	ELECTRIC-FINAL SED TANKS MOD	1,641,490		
1991	6	54	N569-2-54	1	87	ELECTRIC-FINAL SED TANKS MOD	19,490		
1992	6	54	N569-3-54	1	87	ELECTRIC-FINAL SED TANKS MOD	27,311		
1993	1	54	N569-4-54	1	87	ELECTRIC-FINAL SED TANKS MOD	15,147		
1996	6	54	N569-5-54	1	87	ELECT-FINAL SED TANKS MOD	7,976		
1987	6	54	N576-1-54	1	89	GEN CONST&MECH-SLUDGE THICK BL	26,425,524	Value changed from 1999 FAL	
1988	6	54	N576-2-54	1	89	GEN CONST&MECH-SLUDGE THICK BL	1,040,786		
1988	8	54	N576-3-54	1	89	GEN CONST&MECH-SLUDGE THICK BL	3,890		
1987	6	54	N577-1-54	1	89	HEAT,VENT-SLUDGE THICKENER BLD	3,237,980		
1988	5	54	N577-2-54	1	89	HEAT/VENT SLUDGE THICKENER BLD	22,234		
1986	4	54	N578-1-54	1	89	PLUMBING-SLDG THICKENER BLDG	616,270		
1987	6	54	N579-1-54	1	89	ELECTRIC-SLUDGE THICKENER BLDG	2,375,695		
1988	6	54	N579-2-54	1	89	ELECTRIC-SLUDGE THICKENER BLDG	53,342		
1990	6	54	N579-3-54	1	89	ELECTRIC-SLUDGE THICKENER BLDG	6,172		
1990	10	54	N579-4-54	1	89	ELECTRIC-SLUDGE THICKENER BLDG	14,189		
0	0	54	N580-1-54	1	72	STRUCT & MECH- SLUDGE DIGESTIO	0	This item does not appear in the 2002 FAL.	
1988	6	54	N580-2-54	1	72	STRUCT&MECH-SLUDGE DIGESTION F	5,216		
1993	4	54	N580-3-54	1	72	STRUCT&MECH-SLUDGE DIGESTION F	25,792		
1987	6	54	N580-4-54	1	72	STRUCT&MECH-SLUDGE DIGESTION F	23,337,229	Value changed from 1999 FAL	
1987	6	54	N581-1-54	1	72	HEAT,VENT-SLUDGE DIGESTION FAC	1,217,018		
1986	10	54	N582-1-54	1	72	PLUMBING-SLDG DIGEST & GAS FAC	509,701		
1987	6	54	N583-1-54	1	72	ELEC SYS-SLUDGE DIGESTION FAC	2,992,719	Value changed from 1999 FAL	
1988	6	54	N583-2-54	1	72	ELEC SYS-SLUDGE DIGESTION FAC	25,242		
1990	6	54	N583-3-54	1	72	ELEC SYS-SLUDGE DIGESTION FAC	35,517		
1991	6	54	N583-4-54	1	72	ELEC SYS-SLUDGE DIGESTION FAC	68,315		
1988	6	54	N657-1-54	1	81	HIGH MAST LIGHTING	641,773		
1988	9	54	N657-2-54	1	81	HIGH MAST LIGHTING	35,378		
1988	6	54	N658-1-54	1	81	GRAD.PAVE.LANDSCAPE,YARD PIPIN	2,301,080		
1989	8	54	N658-2-54	1	81	GRAD.PAVE.LANDSCAPE,YARD PIPIN	19,487		
1990	6	54	N661-1-54	1	81	GRADING, PAVING & DRAINAGE	900,858		
1992	6	54	N661-2-54	1	81	GRADING, PAVING & DRAINAGE	24,504		
1997	6	54	N661-3-54	1	81	GRADING, PAVING, & DRAINAGE	478		
1990	6	54	N667-1-54	1	90	GEN CONST SLUDGE TRANS STATION	9,190,152		
1991	6	54	N667-2-54	1	90	GEN CONST SLUDGE TRANS STATION	101,498		
1999	6	54	N667-3-54	1	90	GEN CONST SLUDGE TRANS STATION	2,747		
1990	6	54	N668-1-54	1	90	HEAT,VENT-SLUDGE TRANSFER STAT	803,419		
1990	12	54	N668-2-54	1	90	HEAT,VENT-SLUDGE TRANSFER STAT	7,382		
1997	6	54	N668-3-54	1	90	HEAT, VENT-SLUDGE TRANSFER STA	105,152		
1990	6	54	N669-1-54	1	90	PLUMBING -SLUDGE TRANSFER STAT	259,825		
0	0	54	N669-2-54	1	90	PLUMBING-SLUDGE TRANSFER STATI	0	This item does not appear in the 2002 FAL.	
1990	6	54	N670-1-54	1	90	ELECTRIC -SLUDGE TRANSFER STAT	1,035,385		
1991	6	54	N670-2-54	1	90	ELECTRIC -SLUDGE TRANSFER STAT	6,698		
1993	1	54	N670-3-54	1	90	ELECTRIC -SLUDGE TRANSFER STAT	10,824		
0	0	54	N670-4-54	1	90	ELECTRIC-SLUDGE TRANSFER STAT	0	This item does not appear in the 2002 FAL.	
1990	6	54	N671-1-54	1	90	GEN CONST&MECH-SLDG PROC&LOAD	7,488,454		
1991	6	54	N671-2-54	1	90	GEN CONST&MECH-SLDG PROC&LOAD	72,583		
1992	6	54	N671-3-54	1	90	GEN CONST&MECH-SLDG PROC&LOAD	181,621		
1993	6	54	N671-4-54	1	90	GEN CONST&MECH-SLDG PROC&LOAD	245,060		
1993	9	54	N671-5-54	1	90	GEN CONST&MECH-SLDG PRO & LOAD	19,685		
1990	6	54	N672-1-54	1	90	ELECTRIC-SLDG PROC&LOAD TERM	424,098		
1991	6	54	N672-2-54	1	90	ELECTRIC-SLDG PROC&LOAD TERM	18,119		
1992	10	54	N672-3-54	1	90	ELECTRIC-SLDG PROC&LOAD TERM	2,959		
1996	6	54	N673-2-54	1	91	TWO SLUDGE BARGES	10,597		
1990	6	54	N673-3-54	1	91	TWO SLUDGE BARGES	4,474,226		
1991	6	54	N675-1-54	1	77	GEN CONST - ADM BLDG & MAINT F	6,056,574	\$9,514,300	These facilities received only about 3% federal grants, per Joe Clare 10/7/99 email to JRM (filed with PN 31416.0100 Miscellaneous Correspondence).
1992	6	54	N675-2-54	1	77	GEN CONST - ADM BLDG & MAINT F	112,498		
1993	5	54	N675-3-54	1	77	GEN CONST - ADM BLDG & MAINT F	2,440		
1991	6	54	N676-1-54	1	77	HVAC - ADMIN BLDG & MAINT FACI	790,186		
1992	3	54	N676-2-54	1	77	HVAC - ADMIN BLDG & MAINT FACI	110,567		
0	0	54	N676-3-54	1	77	HVAC-ADMIN BLDG & MAINT FACIL	0	This item does	
1991	6	54	N677-1-54	1	77	PLUMBING - ADMIN BLDG & MAINT	481,628		
1991	7	54	N677-2-54	1	77	PLUMBING - ADMIN BLDG & MAINT	66,776		
1991	6	54	N678-1-54	1	77	ELECTRICAL - ADMIN BLDG & MAIN	1,673,674		

1992	6	54	N678-2-54	1	77	ELECTRICAL - ADMIN BLDG & MAIN	206,484						
1992	11	54	N678-3-54	1	77	ELECTRICAL - ADMIN BLDG & MAIN	12,662						
1997	6	54	N678-4-54	1	77	ELECT-ADMIN BLDG & MAIN	811						
1995	9	54	N691-1-54	1	77	COMPUTER MONITOR & CONTROL SYS	4,125,315						
1981	9	54	SD-466-NE-1-54	1	81	FRANKFORD HIGH LEVEL SEWER	76,178						Partial Retirement in 2017
1977	5	54	SD-466-NE-1N-54	1	81	GAS MAIN PIKE ST	44,045						Partial Retirement in 2017
1980	6	54	SD-466-NE-2-54	1	81	ADDITIONAL FRK HIGH LEVEL SEWR	3,421,127						Partial Retirement in 2017
0	0	54	SD-524-NE-1-54	1	85	CONSTR ELEC BLDG	0						This item does not appear in the 2002 FAL.
1985	6	54	SD-525-NE-1N-54	1	85	HEAT & VENT NEW ELECTRICAL BLD	27,367						
1980	6	54	SD-525-NE-1-54	1	85	HEATING & VENT FOR ELEC BLDG	47,395						
1980	6	54	SD-526-NE-1-54	1	85	PLUMB FOR NEW ELEC BLDG	24,557						
1984	6	54	SD-527-NE-1-54	1	85	ELEC SYS FOR ELECTRICAL BLDG	838,704						
1984	6	54	SD-536-NE-1-54	1	88	TREATED WASTWTR EFFLU CONDUITS	1,877,876						
2006	0	54	SD-541-NE-1-54	1	81	SITE PREP FOR NEW PLANT	3,276,700						
2006	0	54	SD-541-NE-2-54	1	81	SITE PREP FOR NEW PLANT	1,343,810						
1998	6	54	N668-4-54	1	90	HEAT, VENT-SLUDGE TRANSFER STAT	62,899						
1991	3	54	N568-4-54	1	87	ELECTRIC-FINAL SED TANKS MOD	19,093						
1999	6	54	N668-5-54	1	87	HEAT, VENT-SLUDGE TRF STATION	93,207						
TOTAL NE PLANT ASSETS (WPAP)							270,358,370	x					
TOTAL NE PLANT ASSETS							422,168,912						
							422,168,911						

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SWPA1 - SW Plant Assets (Non-WPAP) as of 6/30/2016		P.N. 135647.0100		February 11, 2018 9:00 a.m.						
Reference: PWD 2017 Assets.xls										
Year	Month	Depot	Work Order	Non-WPAP	Plant Function ID	Description	Cost			
							\$			
1979	10	55	P-427-1-55	0	107	PROJ SCHEDULER-CONST	0	Retired 2017		
1988	8	55	1618-1-55	0	107	GEN CONST - AUTO MAINT FAC	0	This item does not appear in the 2002 FAL.		
1990	1	55	1618-2-55	0	107	REHAB AUTO MAINTENANCE FACILIT	0	This item does not appear in the 2002 FAL.		
1988	9	55	1619-1-55	0	107	H V A C - AUTO MAINT FAC	0	This item does not appear in the 2002 FAL.		
1989	7	55	1621-1-55	0	107	ELECTRIC - AUTO MAINT FAC	0	This item does not appear in the 2002 FAL.		
1996	6	55	1698-2-55	0	107	GALLERY LIGHTING IMP	4,606			
1994	6	55	1701-4-55	0	107	PAVING / REPAVING	164,209			
1996	6	55	2897-2-55	0	107	INST TANK MONITORING/LEAK DECT	53,126			
1990	6	55	CP02211A-1-55	0	96	REHAB SLDGE COLLECTOR SYS TNKS	1,023,604			
1980	6	55	E-8248-1-55	0	115	HEAT & VENT - SHOP&MAINT BLDG	156,304			
0	0	55	G565-1-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.		
0	0	55	G565-2-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.		
0	0	55	G566-1-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.		
0	0	55	G566-2-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.		
0	0	55	G566-3-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.		
1989	6	55	G567-1-55	0	107	RESTR PICKET FENCE-PARKING LOT	44,678			
1987	6	55	G568-1-55	0	104	CONST PLANT WATER TANK DRAIN	15,588			
1988	6	55	G568-2-55	0	104	WATER TANK DRAIN	47,069			
1988	6	55	G571-1-55	0	115	IMPROVE STORAGE RM- MAINT&SHOP	6,561			
1996	6	55	G587-1-55	0	107	HIGH MAST LIGHTING OVERHAUL	8,680			
1990	2	55	G588-1-55	0	122	REHAB SLDG DIGESTER PIPING	46,977			
1994	10	55	G589-1-55	0	94	ELEC & MECH REHAB GREASE INCEN	1,881,393			
1996	6	55	G595-1-55	0	93	GRIT & ASH STORAGE AREA	9,733			
1990	12	55	G599-1-55	0	96	FORCE MN&PUMP FAC, SLUDGE PROC	366,636			
1991	2	55	G600-1-55	0	96	FORCE MN&PUMP FAC- SLUDGE PROC	85,401			
1990	6	55	G601-1-55	0	93	GRIT REMOVERS - PRE-TREATMENT	17,200			
1990	12	55	G601-2-55	0	93	GRIT REMOVERS - PRE-TREATMENT	111,978			
1996	6	55	G601-3-55	0	93	GRIT REMOVERS-PRE TREATMENT	1,542			
1990	6	55	G602-1-55	0	110	REHAB FINAL SEDIMENTATION TNKS	673,524			
1991	2	55	G602-2-55	0	110	REHAB FINAL SEDIMENTATION TNKS	80,505			
1996	6	55	G603-1-55	0	115	GEN & MECH-SHOP AREA DEWATERIN	5,668			
0	0	55	G605-1-55	0	94	OIL,PUMP,DRAIN,GREASE TRAP	0	This item does not appear in the 2002 FAL.		
1996	6	55	G612-1-55	0	119	NEW SLIDE GATE & SLUICE GATE A	20,689			
1996	6	55	G617-1-55	0	107	NET CATWALKS FOR OVERHAUL CRAN	11,465			
1992	9	55	G618-1-55	0	107	REPL VARIABLE SPEED DRIVES	326,704			
0	0	55	G618-2-55	0	107	REPL VARIABLE SPEED DRIVES	0	This item does not appear in the 2002 FAL.		
1991	2	55	G622-1-55	0	107	REPR STEAM BOILERS & ACCESSORI	116,759			
1992	6	55	G623-1-55	0	107	REPR HEAT EXCHANGE & WTR MAKE-	447,828			
1992	12	55	G623-2-55	0	107	REPR HEAT EXCHANGE & WTR MAKE-	1,948			
1995	10	55	G639-2-55	0	107	PAINTING & APPURTENANT EL TANK	201,191			
1995	5	55	N729-2-55	0	107	RELOC OF RPZ BACKFLOW PRE	92,247			
0	0	55	P1005-1-55	0	114	COMPUTERIZED MAINT MGMT SYS	0	Retired 2011		
1973	4	55	P-322-1-55	0	107	SOIL&FOUND INV-SWWPC	10,000			
1975	2	55	P-323-2-55	0	107	DESIGN FOR SW WPCP	229,941			
1989	6	55	P-324-1N-55	0	107	ENGR SERVICE - PLANS & SPECS	7,869,295			
1974	4	55	P-324-1-55	0	107	DETAIL DSGN SW WPCP	1,100,000			
1976	8	55	P-324-2-55	0	107	PLN&SPECS FOR SW WPC	4,150,000			
1977	11	55	P-324-3-55	0	107	PLNS&SPCS FOR SW WPC	3,788,000			
1978	12	55	P-324-4-55	0	107	DETAIL DESIGN	2,790,000			
1976	10	55	P402-1-55	0	93	CRIT PTH MET CON SCH	0	Retired 2017		
1982	6	55	P-431-1-55	0	107	ENG SERV,CONSULT-EXPAN SWWPCP	128,146			
1983	10	55	P-473-1-55	0	122	ENGR SERV REPAIR SLDGE DIG 1&3	0	Retired 2017		
1985	6	55	P-506-1-55	0	114	CPM SCHEDULING SERVICES	616,334			
1989	6	55	P-506-2-55	0	114	CPM SCHEDULING SERVICE	189,746			
1985	6	55	P-572-2-55	0	115	PLANS MAINT SHOP & REVIEW WARE	0	Retired 2017		
1990	6	55	P-574-1-55	0	107	CONST MANAGEMENT SERVICES	0	Retired 2017		
0	0	55	P-610-1-55	0	123	ENGR SERV SLUDGE COMPOSTING FA	0	This item does not appear in the 2002 FAL.		
0	0	55	P-610-4-55	0	123	ENG SERV-SLUDGE COMPOSTING FAC	0	This item does not appear in the 2002 FAL.		
0	0	55	P-690-2-55	0	105	MODIFY SLUDGE DEWATERING FAC	0	This item does not appear in the 2002 FAL.		
0	0	55	P-738-1-55	0	107	ENGR SERV CONST BARGES/DOCKING	0	This item does not appear in the 2002 FAL.		
0	0	55	P-738-2-55	0	96	ENG SERV-SLUDGE BARGES & DOCKI	0	This item does not appear in the 2002 FAL.		
0	0	55	P-981-1-55	0	107	SLUDGE LAGOON STAB EVALUATION	0	This item does not appear in the 2002 FAL.		
0	0	55	PV11422-1-55	0	105	GEN CONST-SLDG DEWTR FAC	0	This item does not appear in the 2002 FAL.		
1984	12	55	PV23713-1-55	0	115	IMPROVE STORAGE RM MAINT&SHOP	3,114			
0	0	55	PV28734-1-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.		
1986	6	55	PV41925-1-55	0	116	NEW ROOFING - WAREHOUSE BLDG	56,660			

1987	6	55	PV51824-1-55	0	104	CONST PLANT WATER TANK DRAIN	32,960	
0	0	55	PV51826-1-55	0	99	REHAB CHLORINATION SYSTEM	0	This item does not appear in the 2002 FAL.
1986	12	55	PV76219-1-55	0	115	GEN CONST&MECH MAINT FACILITY	46,170	
1988	6	55	R&R8801-1-55	0	117	CLARIFIER REHABILITATION	374,706	
1988	6	55	R&R8806-1-55	0	122	PUMPS&PIPING DIGEST#16-E.COAST	115,427	
0	0	55	SD-318-SWO01-1-55	0	119	NEW ENTR-PS 26&PASSY	0	This item does not appear in the 2002 FAL.
1971	12	55	SD-356-SW-1-55	0	102	PILES UNDER ELEC SBS	2,694	
1971	12	55	SD-356-SW-2-55	0	107	MISC CONCRETE&PAVING	4,790	
1971	12	55	SD-356-SW-3-55	0	107	MISC EQUIP	8,434	
1971	12	55	SD-356-SW-6-55	0	107	EXCAVATION	16,397	
1971	12	55	SD-356-SW-7-55	0	107	PIPES&VALVES	63,195	
0	0	55	SD-437-SW-1-55	0	107	REHAB DISPERS CHMBR-70TH&DICKS	0	This item does not appear in the 2002 FAL.
0	0	55	SD-438-SW-1-55	0	107	REMOTE MONITOR SYS-70TH&DICKS	0	This item does not appear in the 2002 FAL.
0	0	55	SD-438-SW-2-55	0	107	REMOTE MONITOR SYS-70TH&DICKS	0	This item does not appear in the 2002 FAL.
1981	6	55	SD-515-SW-1-55	1981	107	HEATING & VENT RECYCLE CTR	2,637	
1981	6	55	SD-537-SWO-1-55	0	123	GRADE PAVE&DRNAGE-COMPOST AREA	435,334	
1984	2	55	SD-551-SW-1-55	0	107	GRADING,PAVING,FENCE-COMP.AREA	1,025,207	
1983	8	55	SD-555-SW-1-55	0	107	CONCRETE PAD,WALKWAY,DRIVEWAY	9,813	
1988	6	55	W444-1-55	0	122	REPAIR SLUDGE DIGESTER TANK #1	255,488	
1993	6	55	W640-1-55	0	112	MOD LIQUID OXYGEN SYSTEM	214,899	
1996	6	55	W640-2-55	0	112	MOD LIQUID OXYGEN SYSTEM	598,395	
1996	6	55	W642-1-55	0	107	REPL HVAC	9,071	
1996	2	55	W645-1-55	0	107	OIL PUMP,PIPING,SANITARY DRAIN	173,420	
1995	8	55	W646-1-55	0	122	RENOVATION OF DIGESTERS 1&2	564,187	
1997	6	55	W647-1-55	0	97	REHAB DISSOLVED AIR FLOAT TANKS	1,413,241	
1995	2	55	W649-1-55	0	93	MOD TO GRIT/ASH PAD	53,997	
1997	6	55	W650-1-55	0	117	REHAB OF PRIM SED TANKS	2,468,594	
1994	12	55	W651-1-55	0	116	FURN/INSTAL STOR FAC WHSE BLDG	326,183	
1997	6	55	W652-1-55	0	96	INSTAL SLUDGE TRANSFER PUMP	266,457	
1997	6	55	W661-1-55	0	97	GEN CONST & MECH- AIR FLOAT TA	1,143,729	
1997	6	55	W663-1-55	0	121	REPL VAR SPEED DRIVE DIG SLUD	129,103	
1997	6	55	W675-1-55	0	107	INSTL PLANT PF CAPACITORS & SE	179,332	
1997	6	55	W692-1-55	0	93	INSTL INFLUENT CHANNEL BAR SC	60,581	
1997	6	55	W703-1-55	0	124	REPL 6 IN SLUDGE GAS PIPE	158,780	
1997	6	55	3038-3-55	0	107	ASBESTOS REMOVAL & REPL CEILIN	33,291	
1994	6	55	P-324-5-55	0	107	PLANS & SPECS FOR SW WPC	26,391	
1998	6	55	P1053-1-55	0	107	ENG SERV TO EVALUATE HVAC SYS	0	Retired 2017
1997	4	55	P1098-1-55	0	107	DESIGN ANAL-SLUD LAGOON -REPAIR	0	Retired 2017
1998	6	55	P1125-1-55	0	118	REB HVAC-PRELIM TREAT BLDG	0	Retired 2017
1998	6	55	P1130-1-55	0	107	GEN SERV-SUPPL PWD RESOURCES	49,351	Partial Retirement in 2017
1998	6	55	P1139-1-55	0	107	ENG SERV-DESIGN/CONST HVAC	1,155,396	
1998	6	55	P1148-2-55	0	93	MOD GRIT, SCREENINGS, SCUM DISP	0	Retired 2017
1996	3	55	W648-1-55	0	97	REPL VAR SPEED DRIVE SLUDGE PU	939,380	
1996	11	55	W653-1-55	0	124	REPL OF SLUDGE GAS BURNERS	270,319	
1996	10	55	W664-1-55	0	113	REHAB EFFLUENT PUMP CONTROLS	96,711	
1997	6	55	W669-1-55	0	109	ELECT-DISSOLVED AIR FLOTATION	676,633	
1997	6	55	W671-1-55	0	124	REHAB-SLUD GAS SYSTEM	162,594	
1997	2	55	W679-1-55	0	107	REPAIR HIGH MAST LIGHT POLES	164,002	
1997	9	55	W685-1-55	0	93	GRIT INCINERATOR BYPASS SYS	223,227	
1996	11	55	W688-1-55	0	97	INSTL SLUD TFR PUMP #2	124,152	
1997	5	55	W697-1-55	0	107	MOD TRAVELING BRIDGE CRANES	196,764	
0	0	55	W699-1-55	0	97	INSTL TWO MECH MIXERS-SLUDG D	0	This item does not appear in the 2002 FAL.
1997	2	55	W701-1-55	0	114	POLY SILICONE ROOF-ADMIN-PRELI	290,957	
1997	9	55	61009-2-55	0	107	REMOVE UNDERGRD STORAGE TKS	30,747	
1999	6	55	73005-1-55	0	107	MOD PLANT STORM & DRAIN SYS	578,829	
1998	8	55	73006-1-55	0	107	ELECT-WAREHOUSE & ADJ FAC	315,241	
1999	6	55	73007-1-55	0	124	REPL SLUD GAS PIPING-PHASE 2	611,692	
1998	7	55	73011-1-55	0	124	REHAB SLDG GAS STOR TK COVER	357,977	
1998	7	55	73015-1-55	0	107	WATERPROOFING OF WAREHOUSE NO2	226,173	
1998	8	55	P-324-6-55	0	107	PLANS & SPECS FOR SW WPC	25,719	
1998	5	55	W670-1-55	0	122	REHAB-SLUD DIG MIXING/RECIRCUL	1,206,239	
1998	10	55	W681-1-55	0	110	ELEVATING FINAL SED TK FLIGHTS	2,534,789	
1998	10	55	W682-1-55	0	107	MOD PLANT DRAIN SYSTEM	281,452	
1996	11	55	W688-2-55	0	97	INSTL SLUD TFR PUMP #2	1,004	
1997	2	55	W701-2-55	0	107	POLY SILICONE ROOF-ADMIN-PRELI	1,018	
1998	3	55	W705-1-55	0	124	INSTL DIG GAS FLOW METER	189,770	
2001	2	55	70001-2-55	0	106	ACCESS CONT & ALARM SYS	834,453	Projects added since the 1999 FAL.
1999	2	55	73002-1-55	0	99	HVAC-SODIUM HYPOCHLORITE FAC	482,395	Projects added since the 1999 FAL.
1999	2	55	73003-1-55	0	99	PLUMB-SODIUM HYPOCHLORITE FAC	84,402	Projects added since the 1999 FAL.
2000	2	55	73004-1-55	0	99	ELECT-SODIUM HYPOCHLORITE FAC	179,181	Projects added since the 1999 FAL.
1999	6	55	73005-2-55	0	107	MOD PLANT STORM DRAIN SYS	4,699	Projects added since the 1999 FAL.
2000	2	55	73007-2-55	0	124	REPL SLUDGE GAS PIPING-PHASE 2	42,843	Projects added since the 1999 FAL.
2001	1	55	73008-1-55	0	114	CONST-ALT/ENCLOS INT COURT ADM	575,465	Projects added since the 1999 FAL.

2000	1	55	73010-1-55	0	114	ELECT-ENCLOSUR INT COURT ADMIN	53,962	Projects added since the 1999 FAL.
2001	6	55	73012-1-55	0	124	INSTL-2ND ELECT SERV GAS SLUD	367,651	Projects added since the 1999 FAL.
2000	8	55	73022-1-55	0	106	ELECT-RENOV SOUTH SIDE	279,718	Projects added since the 1999 FAL.
1999	7	55	P-967-2-55	0	106	ENG SERV-VARIOUS PROJECTS	37,832	Projects added since the 1999 FAL.
1998	6	55	P1130-2-55	0	106	ENGR SERV TO SUPPL PWD RESOURC	104,324	Partial Retirement in 2017
2000	6	55	P1139-2-55	0	107	ENG SERV-DESIGN/CONST HVAC SYS	422,852	Projects added since the 1999 FAL.
2001	6	55	P1201-1-55	0	106	CONVER OF HALON SUPPRESSION SY	0	Retired 2017
2001	6	55	P1220-2-55	0	121	ENG SER-EVAL HVAC EQUIP SLD TH	292,290	Partial Retirement in 2017
0	0	55	P1222-6-55	0	106	ENG SERV-METCALF & EDDY	0	Retired 2011
0	0	55	P1228-5-55	0	107	DRIOX PIPING & VALVES UPGRADE	0	Retired 2011
2000	9	55	P1240-1-55	0	106	G&H-ADD'L ENG DESIGN SERVICES	0	Retired 2017
1999	1	55	W634-1-55	0	118	REPL HOT WATER CORES-PREM TREA	810,239	Projects added since the 1999 FAL.
2000	10	55	W662-1-55	0	117	REHAB SCUM PS-PRIM SED TANKS	869,460	Projects added since the 1999 FAL.
1998	10	55	W673-1-55	0	106	COMBINED WITH W680-ROOF-POLY	27,176	Projects added since the 1999 FAL.
1998	10	55	W680-1-55	0	122	POLY SILICONE ROOF-DIG TK THIC	1,035,182	Projects added since the 1999 FAL.
2000	1	55	W689-1-55	0	106	OPERATOR INTERFACE NETWORK	1,422,361	Projects added since the 1999 FAL.
2000	2	55	W690-1-55	0	119	REHAB INFLUENT PUMPS	440,725	Projects added since the 1999 FAL.
1999	1	55	W693-1-55	0	93	REPL GRIT PIPING & VALVES	643,391	Projects added since the 1999 FAL.
1998	11	55	W694-1-55	0	106	REHAB 15KV SWITCHGEAR	764,547	Projects added since the 1999 FAL.
2000	1	55	W707-1-55	0	106	ARCHITECT-RENOV SAMPLE PREP LA	156,349	Projects added since the 1999 FAL.
2000	1	55	W708-1-55	0	106	MECH/PLUMB-RENOV SAMPLE PREP L	128,438	Projects added since the 1999 FAL.
1999	9	55	W709-1-55	0	106	ELECT-RENOV SAMPLE PREP LAB	32,599	Projects added since the 1999 FAL.
2002	8	55	73001-1-55	0	99	INSTL-SODIUM HYPOCHLORITE FAC	429,831	Projects added since the 2002 FAL.
2002	1	55	73013-1-55	0	107	INSTL-STBY LIGHT, BATPK, GENERAT	621,892	Projects added since the 2002 FAL.
2002	1	55	73017-1-55	0	122	REHAB DIGESTER TKS 1 & 2	373,394	Projects added since the 2002 FAL.
2002	5	55	73018-1-55	0	110	CONCRETE REPAIR-NEW FINAL SED	1,988,080	Projects added since the 2002 FAL.
2001	10	55	73020-1-55	0	106	INSTL - PROGRAMMABLE CONTROLLER	987,448	Projects added since the 2002 FAL.
2003	6	55	73021-1-55	0	114	REHAB HVAC - ADMIN	40,324	Projects added since the 2002 FAL.
2002	2	55	73035-1-55	0	96	REHAB-RET SLDG LINE CONTROL SY	361,771	Projects added since the 2002 FAL.
0	0	55	MP389-2-55	0	104	G&H -DESIGN SLUD DEWTR FAC	0	Retired 2011
0	0	55	91201-6-55	0	102	REHAB OF PHONE SYTM- SWWPCP	0	Retired 2012
2003	12	55	73016-1-55	0	114	RENOVATION OFHVAC SYS	2,440,507	
2003	3	55	73019-1-55	0	121	SLDTHK-LO/VOLT,SWITGR,MVCIRC	1,430,815	
2006	4	55	73023-1-55	0	116	GEN CONST NEW OFFICES WAREHOUSES	199,641	
2006	7	55	73024-1-55	0	116	HVAC WORK FOR NEW OFFICES-TOILET FA	53,719	
2007	0	55	73026-1-55	0	116	ELECTR WORK FOR NEW OFFICES-TOILET I	102,287	
2003	12	55	73027-1-55	0	114	EMERGREPL FUELOILLINES	540,833	
2003	12	55	73028-1-55	0	114	FIBERGLASS DOORS	746,072	
2003	8	55	73029-1-55	0	106	MECH-REHAB VALVES&ACTUATORS	1,217,328	
2007	0	55	73031-1-55	0	118	ELECTR WORK FOR RENOVATION OF HVAC	2,389,673	
2004	3	55	73032-1-55	0	106	ELECT-REHABVALVES & ACTUATORS	115,962	
2004	10	55	73033-1-55	0	110	MECH FINAL SED TK SCUM REMOVAL	2,642,660	
2005	1	55	73034-1-55	0	110	ELECT FINAL SED TK SCUM REMOVAL	931,411	
2003	10	55	73037-1-55	0	123	IMPROVERESIDUAL PAD	553,856	
2004	11	55	73038-1-55	0	93	REPL SLUICE GATE OPERATORS	719,232	
2005	2	55	73040-1-55	0	112	EXT PAINTING CRYOGENIC OXYGEN	418,113	
2005	4	55	73044-1-55	0	116	REPL TRANSFORMERS WAREHOUSE 2	115,559	
2004	6	55	P1139-3-55	0	118	ENGSERV-DESIGN/CONSTHVAC SYS	0	Retired 2011
2003	6	55	P1201-6-55	0	102	CONVER HALON SUPPRESSION SYS	0	Retired 2017
2005	6	55	P1225-7-55	0	93	REHABPLANTWTRSYS,GRIT PAD I	0	Retired 2011
2005	6	55	P1225-11-55	0	93	**REHABPLANTWTRSYS,GRIT PAD I**	121,988	Partial Retirement in 2017
2002	6	55	P1225-6-55	0	106	ENGSERV-METCALF & EDDY	119,437	Partial Retirement in 2017
2005	6	55	P1326-1-55	0	114	NORTHSIDEHVAC INP,START-UPCE	0	Retired 2017
2005	3	55	P5103095-1-55	0	114	Repl Cable and Telephone Systems	0	Retired 2017
2005	3	55	P5109676-1-55	0	114	Inst New 25 Pair Cable	0	Retired 2017
1999	4	55	P1188-1-55	0	124	ENG STEAM INJECTION PILOT STUDY	0	
2006	6	55	V68919662-1-55	0	114	REPL PIPES FOR FUEL TANKS	52,132	
2007	5	55	72046-55	0	100	HVAC WORK FOR NEW OFFICES-TOILET FA	0	
2008	1	55	73025-1-55	0	116	PLUMBING WORK FOR NEW OFFICES AND	107,345	
2007	9	55	73030-1-55	0	114	HVAC WORK FOR RENOVATION OF THE HV	26,970,822	
2009	1	55	73036-1-55	0	107	Rehab of Plant Water System	1,268,343	
2010	8	55	73039-1-55	0	112	MECH. WORK FOR REHAB OF OXYGENATIC	1,347,115	
2008	1	55	73041-1-55	0	96	REPLACEMENT OF WASTE SLUDGE PIPES A	641,786	
2008	7	55	73042-1-55	0	110	REHAB PRIMARY SED. TANKS SW	4,331,902	
2009	9	55	73043-1-55	0	117	S.W.- Rehab. Power Dist. System at PST (SC11-20)	2,244,138	
2011	12	55	73046-55	0	96	Rehab of Sludge Return Piping	4,853,488	
2009	11	55	73049-1-55	0	117	S.W.- Rehab. of Final Sed. Tanks (SC06-09-08)	7,936,302	
2011	3	55	73050-1-55	0	107	Repl of Roadway Lighting	1,415,955	
2011	2	55	73051-1-55	0	124	Replace Sludge Gas Lines	3,409,506	
2009	10	55	73052-1-55	0	93	S.W.- Rehab. Grit Collector Tanks (SC11-19-08)	978,309	
2014	3	55	73053-55	0	107	MED AND LOW VOLTAGE SWITCHGR REPL	2,739,618	
2010	11	55	73054-1-55	0	111	Inspect, Test and Calibrate Electrical System	688,454	
2011	3	55	73055-1-55	0	106	REPLACE DOORS	1,195,181	

2013	6	55	73056-1-55	0	124	WASTE GAS BURNER REHAB-SW	2,858,396	
2013	7	55	73056-2-55	0	124	WASTE GAS BURNER REHAB-SW	113,769	
2013	9	55	73057--55	0	118	replace 480v switchgear and 208v unit substation-p	1,209,042	
2014	2	55	73059--55	0	113	install/sluiice gate at effluent pumping station-swwp	98,876	
2014	4	55	73068--55	0	107	NEW PERVIOUS FOR PARKING LOT-SWWPC	919,902	
2106	6	55	73068--55	0	107	NEW PERVIOUS FOR PARKING LOT-SWWPC	133,191	
2010	4	55	75021--55	0	107	70th & Dicks-Rehab. Of Sluice Gat Chamber-Gen.	2,111,577	
2106	6	55	75021--55	0	107	**REHABSLUICEGATECHAMBER-70TH/DICI	31,130	
2010	4	55	75022--55	0	107	70th & Dicks-Rehab. Of Sluice Gat Chamber-Gen.	582,229	
1985	8	55	W544-1-55	0	107	**STORMWTRDRAINS SLDGCOMP SW**	543,790	
1985	8	55	W544-2-55	0	107	**STORMWTRDRAINS SLDGCOMP SW**	88,525	
2008	3	55	P1394--55	0	112	REHAB OXYGEN SYS	498,603	
2015	6	55	73039--55	0	112	MECH. WORK FOR REHAB OF OXYGENATIC	157	
2015	6	55	73050--55	0	107	Repl of Roadway Lighting	416	
2016	6	55	73051--55	0	124	Replace Sludge Gas Lines	35,305	
2015	6	55	73055--55	0	106	REPLACE DOORS	52	
2016	6	55	73056--55	0	124	WASTE GAS BURNER REHAB-SW	64,844	
2016	6	55	P5103095--55	0	106	**Repl Cable and Telephone Systems **	0	Retired 2017
-	-	55		0	114	General Plant	3,974,810	
TOTAL SW PLANT ASSETS (Non-WPAP)							151,077,463	x

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SWPA2 - SW Plant Assets (WPAP) as of 6/30/2016		P.N. 135647.0100		February 11, 2018 9:00 a.m.		Plant-6				
Reference: PWD 2017 Assets.xls										
Year	Month	Depot	Work Order	WPAP	Plant Function ID	Description	Cost			
							\$			
1981	6	55	SD-450-SW-1-55	1	112	CYROGENIC OXYGEN SUPPLY SYSTEM	767			
1982	6	55	SD-450-SW-3-55	1	112	OXYGEN SUPPLY & OXYGENATION SY	11,031,650			
1981	6	55	SD-451-SW-1-55	1	122	OXYGEN ACTIVATED SLUDGE SYSTEM	3,004			
1982	6	55	SD-451-SW-2-55	1	112	OXYGEN SUPPLY&OXYGENATION SYST	3,011			
1977	1	55	SD-452-SW-3-55	1	107	TIMBR PILES&FILL MAT	368,206			
1977	1	55	SD-452-SW-4-55	1	107	RC SNG BBL OTFL CND	1,254,174			
1978	7	55	SD-453-SW-3-55	1	107	STEEL SHEATHING	8,645			
1978	7	55	SD-453-SW-4-55	1	105	RELOC DEWTR LEADER	0	This item does not appear in the 2002 FAL.		
1978	7	55	SD-453-SW-5-55	1	107	BROKEN STONE	10,780			
1978	7	55	SD-453-SW-7-55	1	107	ELEC WRK&STW PUMP	13,450			
1978	7	55	SD-453-SW-8-55	1	107	ELEC & TEL DUCTS	22,915			
1978	7	55	SD-453-SW-9-55	1	102	13.2KV PRIM SERV	37,351			
1978	7	55	SD-453-SW-10-55	1	107	EXC-LOW IVERT EGLE C	44,730			
1978	7	55	SD-453-SW-11-55	1	109	AERATION TANKS	269,200			
1978	7	55	SD-453-SW-12-55	1	107	REPL SPILLWAY EMBNK	311,917			
1978	7	55	SD-453-SW-13-55	1	107	RIP-RAP	332,579			
1978	7	55	SD-453-SW-14-55	1	110	FINAL TANKS	673,200			
1978	7	55	SD-453-SW-15-55	1	107	EMBNK ON&OFF SITE	1,354,136			
1978	7	55	SD-453-SW-16-55	1	107	SITE PREP FOR SWWPCP	3,451,797			
1978	7	55	SD-453-SW-17-55	1	107	EXC & BACKFILL	3,469,083			
1982	7	55	SD-454-SW-1N-55	1	108	CONSTR OF COMPRESSOR BLDG	15,868			
1980	6	55	SD-454-SW-1-55	1	108	CONSTR OF COMPRESSOR BLDG	1,954,899			
1980	1	55	SD-455-SW-2-55	1	107	HEATING & VENTILATIO	2,649			
1978	4	55	SD-455-SW-3-55	1	107	HEATING & VENTILATIO	273,831			
1980	6	55	SD-457-SW-1-55	1	108	PLMB SYS FOR COMPRESSOR BLDG	63,563			
1977	12	55	SD-457-SW-2-55	1	108	PLMB SYS FOR COMPRESSOR BLDG	7,315			
1981	6	55	SD-458-SW-1-55	1	108	COMPRESSOR BLDG ELEC SYSTEM	3,232			
1980	6	55	SD-458-SW-1N-55	1	108	ELEC WORK FOR COMPRESSOR BLDG	818,499			
1985	1	55	SD-459-SW-1-55	1	109	STRUCT & EQUIP AERATION TANKS	137,758			
1980	6	55	SD-459-SW-1N-55	1	109	CONSTR OF AERATION TANKS	11,127,534			
1980	6	55	SD-460-SW-1-55	1	109	HEAT & VENT FOR AERATION TANKS	110,929			
1980	6	55	SD-461-SW-1-55	1	109	PLUMBING FOR AERATION TANKS	85,303			
1981	6	55	SD-462-SW-1N-55	1	109	AERATION TANKS ELEC SYSTEM	5,500			
1980	6	55	SD-462-SW-1-55	1	109	ELEC SYST FOR AERATION TANKS	961,595			
1984	10	55	SD-463-SW-1-55	1	110	GEN CONST FINAL SEDIMENTATION	130,520			
1980	6	55	SD-463-SW-3-55	1	110	CONST OF SEDIMENTATION TANKS	21,833,411	Value changed from 1999 FAL		
1980	6	55	SD-464-SW-1-55	1	110	HEAT & VENT SYS FOR SED TANKS	163,987			
1979	6	55	SD-465-SW-1-55	1	107	ADDITIONAL ENGINEER	1,684			
1979	6	55	SD-465-SW-2-55	1	110	PLUMB SYS-SED TANKS	115,630			
1980	6	55	SD-465-SW-3-55	1	110	PLMB SYST FOR FINAL SED TANKS	20,636			
1980	6	55	SD-466-SW-1-55	1	117	ELEC SYS FOR SEDIMENTATION TAN	1,799,644			
1981	6	55	SD-467-SW-1-55	1	113	GEN CONSTR OF EFFLUENT PMP STA	57,193			
1980	6	55	SD-467-SW-1N-55	1	113	CONST EFFLUENT PUMPING STAT	3,529,235	Value changed from 1999 FAL		
1985	4	55	SD-467-SW-2-55	1	113	STRUCT&EQUIP-EFFLUENT PUMP STA	37,058			
1980	6	55	SD-468-SW-1-55	1	113	HEAT/VENT FOR EFFLUENT PP ST	176,714			
1980	6	55	SD-469-SW-1-55	1	113	PLUMB FOR EFFLUENT PUMP ST	33,077			
1985	1	55	SD-470-SW-1-55	1	113	ELEC SYSTEM EFFLUENT PUMP STAT	35,550			
1980	6	55	SD-470-SW-1N-55	1	113	ELEC SYS EFFLUENT PUMP ST	734,277			
1982	6	55	SD-471-SW-1-55	1	114	GEN CONSTR ADMIN BLDG SWWPCP	14,551			
1980	6	55	SD-471-SW-1N-55	1	114	CONST OF ADMIN BLDG	1,786,399			
1983	3	55	SD-472-SW-1N-55	1	114	HEAT & VENT ADMIN BLDG & PLAZA	7,206			
1980	6	55	SD-472-SW-1-55	1	107	ADMIN. BLDG. SWWPCP HVAC	214,254			
1980	6	55	SD-473-SW-1-55	1	114	PLMB SYS FOR ADMIN BLDG	190,002			
1981	6	55	SD-474-SW-1N-55	1	114	ADMIN BLDG&PLAZA AREA ELEC SYS	2,014			
1980	6	55	SD-474-SW-1-55	1	114	ADMIN BLDG&PLAZA ELEC SYS	249,208			
1983	4	55	SD-474-SW-2-55	1	114	ADMIN BLDG&PLAZA AREA ELEC SYS	8,669			
1983	10	55	SD-475-SW-1N-55	1	115	GEN CONST - SHOP & MAINT BLDG	162,291			
1980	6	55	SD-475-SW-1-55	1	115	CONST OF SHOP & MNTENANCE BLDS	1,540,602			
1984	6	55	SD-476-SW-1-55	1	115	HEAT/VENT - SHOP & MAINT BLDGS	1,019			
1980	6	55	SD-476-SW-1N-55	1	115	HEAT/VENT SHOP & MAINT BLDS	431,533			
1980	6	55	SD-476-SW-2-55	1	115	HEAT/VENT SHOP & MAINT BLDS	156,304			
1980	6	55	SD-477-SW-1-55	1	115	PLMB SYS FOR SHOP & MAINT BLDG	136,019			
1981	6	55	SD-478-SW-1N-55	1	115	SHOP&MAINT BLDG ELEC SYSTEM	12,855			
1980	6	55	SD-478-SW-1-55	1	115	ELEC SYS FOR SHOP & MAINT BLDG	200,315			
1982	6	55	SD-479-SW-1N-55	1	116	STRUCT&MECHAN-WAREHSE&OTHR FAC	5,888			
1980	6	55	SD-479-SW-1-55	1	116	MECH WORK FOR WAREHOUSE	1,261,584			

1980	6	55	SD-480-SW-1-55	1	116	HEAT & VENT WORK AT WAREHOUSE	121,239	
1982	12	55	SD-481-SW-1N-55	1	115	PLUMB WORK AT SW WAREHOUSE	2,076	
1980	6	55	SD-481-SW-1-55	1	116	PLUMB WORK AT SW WAREHOUSE	45,161	
1985	4	55	SD-482-SW-1-55	1	111	ELEC SYS WAREHOUSE,OTHER FACIL	11,271	
1980	6	55	SD-482-SW-1N-55	1	116	ELEC WORK AT SW WAREHOUSE	120,992	
1978	6	55	SD-484-SW-1-55	1	111	CONSTR OF ELEC BLDG	486,415	
1983	5	55	SD-485-SW-1N-55	1	111	HEAT & VENT ELECTRICAL BLDG	16,368	
1979	6	55	SD-485-SW-1-55	1	111	HEAT & VENT FOR SW ELEC BLDG	99,119	
1979	6	55	SD-486-SW-1-55	1	111	PLMB SYS FOR NEW ELEC BLDG	27,276	
1981	5	55	SD-486-SW-2-55	1	111	PLMB SYS FOR ELEC BLDG	1,700	
1982	1	55	SD-487-SW-1-55	1	111	ELECTRICAL SYS NEW ELEC BLDG	24,840	
1979	6	55	SD-487-SW-1N-55	1	111	ELEC WORK FOR NEW ELEC BLDG	851,022	
1985	3	55	SD-488-SW-2-55	1	117	STRUCT & EQUIP PRIM SED TANKS	5,984,416	Value changed from 1999 FAL
1980	6	55	SD-492-SW-1-55	1	104	ELEVATED STORAGE TANK	200,306	
1980	6	55	SD-492-SW-2-55	1	104	ELEVATED STORAGE TANK FOUNDATI	66,768	
1984	10	55	SD-496-SW-1-55	1	118	PLUMBING - PRELIM TREAT BLDG	399,136	
1985	6	55	SD-498-SW-1-55	1	119	STRUCT & EQUIP INFLU PUMP STAT	4,029,646	
1980	6	55	SD-502-SW-1-55	1	120	CONST SCUM CONCENTRATION BLDG	701,564	Value changed from 1999 FAL
1982	12	55	SD-503-SW-1-55	1	120	HEAT/VENT SCUM CONCENT BLDG	104,649	
1985	3	55	SD-504-SW-1-55	1	120	PLUMBING-SCUM CONCENTRATION BL	1,300	
1980	6	55	SD-504-SW-1N-55	1	120	PLUMB SCUM CONCENTRATION BLDG	49,003	
1980	6	55	SD-506-SW-2-55	1	121	CONST SLUDGE THICKNER BLDG	9,906,146	Value changed from 1999 FAL
1982	11	55	SD-507-SW-1N-55	1	121	HEATING VENT SLUDGE THICK BLDG	65,239	
1980	6	55	SD-507-SW-1-55	1	121	HEATING VENT SLUDGE THICK BLDG	1,848,517	
1980	6	55	SD-508-SW-1-55	1	121	PLUMB SLUDGE THICKNER BLDG	295,057	
1984	2	55	SD-511-SW-1-55	1	122	HEAT/VENT - SLUDGE DIGEST FACI	1,078,961	
1983	4	55	SD-523-SW-1N-55	1	106	LANDSCAPE & MISCELLANEOUS WORK	85,803	
1980	6	55	SD-523-SW-1-55	1	107	LANDSCAPE & MISCELLANEOUS WORK	2,371,971	
1983	8	55	SD-524-SW-1-55	1	107	ELEC WRK FOR ROADS,SEWERS,ETC	210,285	
1984	11	55	SD-525-SW-1-55	1	107	GEN CONST-ROAD,STRM SWR,LND SC	1,510,776	
1985	6	55	SD-526-SW-1-55	1	107	ELECTRICAL 4 ROADS,STORM SEWR	343,905	
1984	11	55	SD-531-SW-2-55	1	124	STRUCT & EQUIP SLUDGE GAS FACI	6,245,739	Value changed from 1999 FAL
1985	4	55	SD-532-SW-1-55	1	124	HEAT, VENT-SLUDGE GAS FACILITY	1,332,722	
1984	3	55	SD-533-SW-1-55	1	124	PLUMBING 4 SLUDGE GAS FACILITY	144,405	
1985	4	55	SD-534-SW-1-55	1	124	ELECTRICAL-SLUDGE GAS FACILITY	689,576	
1980	6	55	SD-535-SW-1-55	1	109	PHASE 5 AER TNK PLUMBING	73,072	
1987	6	55	W458-1-55	1	108	ELEC SYSTEM-COMPRESSOR BLDG	57,426	
1997	6	55	W458-2-55	1	108	ELECT- COMPRESSOR BLDG	0	This item does not appear in the 2002 FAL.
1987	6	55	W460-1-55	1	109	HEAT,VENT- AERATION TANKS	13,083	
1987	6	55	W461-1-55	1	109	PLUMBING - AERATION TANKS	1,705	
1989	6	55	W461-2-55	1	109	PLUMBING - AERATION TANKS	28,559	
1986	9	55	W462-1-55	1	109	ELECTRIC-AERATION TANKS	17,590	
1987	6	55	W466-1-55	1	117	ELECTRIC-SEDIMENTATION TNKS	62,817	
1987	6	55	W468-1-55	1	113	HEAT,VENT - EFFLUENT PUMP STAT	2,697	
1989	11	55	W468-2-55	1	113	HEAT,VENT - EFFLUENT PUMP STAT	32,589	
1987	6	55	W469-1-55	1	113	PLUMBING - EFFLUENT PUMP STATI	1,422	
1987	6	55	W471-1-55	1	114	GEN CONSTR ADMIN BLDG & PLAZA	4,101	
1997	6	55	W473-1-55	1	114	PLUMB SYS FOR ADMIN BLDG	0	This item does not appear in the 2002 FAL.
1986	9	55	W478-1-55	1	115	ELECTRIC-SHOP & MAINT BLDG	7,042	
1986	4	55	W489-1-55	1	117	HEAT & VENT - PRIM SEDIMEN TKS	29,462	
1986	4	55	W490-1-55	1	117	PLUMBING-PRIMARY SEDIMENTATION	51,508	
1987	6	55	W491-1-55	1	117	ELEC SYS-PRIMARY SEDIMENT TANK	762,088	
1989	6	55	W491-2-55	1	117	ELEC SYS-PRIMARY SEDIMENT TANK	22,559	
1987	6	55	W493-1-55	1	104	ELECTRIC FOR ELEVATED TANKS	34,365	
1986	5	55	W494-2-55	1	118	STRUCT & EQUIP PRELIM TREAT BL	13,758,383	
1987	6	55	W495-1-55	1	118	HEAT,VENT-PRELIM TREAT BLDG	2,051,426	
1988	3	55	W495-2-55	1	118	HEAT/VENT PRELIMINARY TREAT BL	48,058	
1987	3	55	W497-1-55	1	118	ELECT-PRELIMIN TREATMENT BLDG	2,337,574	
1987	1	55	W499-1-55	1	119	HEAT/VENT-INFLUENT PUMPING STA	257,570	
1987	1	55	W500-1-55	1	119	PLUMBING-INFLUENT PUMP STATION	16,657	
1987	1	55	W500-2-55	1	119	PLUMBING-INFLUENT PUMP STATION	55,771	
1986	5	55	W501-1-55	1	119	ELEC - INFLUENT PUMPING STAT	586,635	
1985	8	55	W502-1-55	1	120	STRUCT&EQUIP-SCUM CONCENT BLDG	39,690	
1986	2	55	W505-1-55	1	120	ELEC WORK - SCUM CONCENT BLDG	177,963	
1985	8	55	W506-1-55	1	121	STRUCT&EQUIP SLDG THICKENING B	295,612	
1985	8	55	W506-2-55	1	121	STRUCT&EQUIP SLDG THICKENING B	525,535	
1987	1	55	W508-1-55	1	121	PLUMBING-SLUDGE THICKENER BLDG	68,147	
1987	6	55	W509-1-55	1	121	ELECTRICAL-SLUDGE THICKENER BL	466,954	Value changed from 1999 FAL
1991	6	55	W510-2-55	1	122	STRUCT&MECH-SLUDGE DIGESTION F	1,925	
1993	4	55	W510-3-55	1	122	STRUCT&MECH-SLUDGE DIGESTION F	113,127	
1987	6	55	W510-4-55	1	122	STRUCT&MECH -SLUDGE DIGESTION	13,255,875	Value changed from 1999 FAL
1987	6	55	W512-1-55	1	122	PLUMBING-SLUDGE DIGESTION FACI	394,748	
1989	6	55	W512-2-55	1	122	PLUMBING-SLUDGE DIGESTION FACI	6,951	

1986	9	55	W513-1-55	1	122	ELECTRIC-SLUDGE DIGESTION FACI	1,210,139	
1987	6	55	W518-1-55	1	93	STRUCT&MECH-GRIT&ASH TRNS STAT	2,742,819	
1988	6	55	W518-2-55	1	93	STRUCT&MECH-GRIT&ASH TRNS STAT	184,212	
1989	6	55	W518-3-55	1	93	STRUCT&MECH-GRIT&ASH TRNS STAT	60,944	
1989	10	55	W518-4-55	1	93	STRUCT&MECH-GRIT&ASH TRNS STAT	41,494	
1987	6	55	W519-1-55	1	93	HEAT,VENT-GRIT&ASH TRANS STATI	146,343	
1991	4	55	W519-2-55	1	93	HEAT,VENT-GRIT&ASH TRANS STATI	39,281	
1987	6	55	W520-1-55	1	93	PLUMBING-GRIT&ASH TRANS STATIO	102,327	
1988	6	55	W520-2-55	1	93	PLUMBING-GRIT&ASH TRANS STATIO	7,495	
1989	6	55	W520-3-55	1	93	PLUMBING-GRIT&ASH TRANS STATIO	4,520	
1987	6	55	W521-1-55	1	93	ELECTRICAL-GRIT&ASH TRANS STAT	260,831	
1988	3	55	W521-2-55	1	93	ELECTRIC-GRIT&ASH TRANS STATIO	32,717	
1987	6	55	W522-1-55	1	114	COMPUT MONITOR&CONTROL SYSTEM	0	Value changed from 1999 FAL
1988	6	55	W522-2-55	1	114	COMPUT MONITOR&CONTROL SYSTEM	0	This item does not appear in the 2007 FAL.
1989	6	55	W522-3-55	1	114	COMPUT MONITOR&CONTROL SYSTEM	0	This item does not appear in the 2007 FAL.
1988	6	55	W527-2-55	1	122	STRUCT&MECH-MOD SLUDGE FACILIT	866,250	
1989	6	55	W527-3-55	1	122	STRUCT&MECH-MOD SLUDGE FACILIT	31,299	
1987	6	55	W527-4-55	1	122	STRUCT & MECH-MOD SLUDGE FACIL	14,487,839	
1987	6	55	W528-1-55	1	122	HEAT,VENT-MOD SLUDGE FACILITIE	1,288,838	
1988	2	55	W528-2-55	1	96	HEAT & VENT MODIFY SLUDGE FACI	8,863	
1987	6	55	W529-1-55	1	122	PLUMBING-MOD SLUDGE FACILITIES	451,693	
1987	8	55	W529-2-55	1	122	PLUMBING-MOD SLUDGE FACILITIES	3,371	
1987	6	55	W530-1-55	1	122	ELECTRICAL-MOD SLUDGE FACILITI	2,767,705	
1987	10	55	W530-2-55	1	122	ELECTRICAL-MOD SLUDGE FACILITI	140,639	
1997	6	55	W530-3-55	1	122	ELECTRICAL-MOD SLUDGE FACILITY	0	This item does not appear in the 2002 FAL.
1993	6	55	W556-1-55	1	107	STORM SEWERS, LANDSCAPING, ETC	2,416,153	
1993	9	55	W556-2-55	1	107	STORM SEWERS, LANDSCAPING, ETC	6,953	
1991	6	55	W557-1-55	1	107	STORM SEWERS, LANDSCAPING, ETC	204,749	
TOTAL SW PLANT ASSETS (WPAP)							175,919,928	x
TOTAL SW PLANT ASSETS							326,997,391	
							326,997,391	

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SEPA1 - SE Plant Assets (Non-WPAP) as of 6/30/2016		P.N. 135647.0100		February 11, 2018 9:00 a.m.						
Reference: PWD 2017 Assets.xls										
Year	Month	Depot	Work Order	Non-WPAP	Plant Function ID	Description	Cost			
							\$			
1996	6	56	1698-3-56	0	138	GALLERY LIGHTING IMP	4,607			
1996	6	56	2897-3-56	0	138	INST TANK MONITORING/LEAK DETE	54,737			
1996	6	56	E235-1-56	0	138	LEAKAGE MONTORING/TELEMETRY-1	27,995			
1996	6	56	E237-1-56	0	138	SEPTAGE TFR STATION	45,062			
1996	6	56	E257-1-56	0	138	YARD PIPING	46,944			
1996	6	56	E264-1-56	0	126	GEN-SCREENING GRIT FAC & TFR S	56,444			
1996	6	56	E286-1-56	0	138	GEN-SLUDGE HANDLING FAC	9,311			
1996	6	56	E291-1-56	0	131	HVAC- WAREHOUSE & STORAGE FAC	5,741			
0	0	56	E306-1-56	0	138	AIR COND OF ELEC SUBSTATIONS	0	This item does not appear in the 2003 FAL.		
1996	6	56	E309-1-56	0	138	COMBINED SEWER OVERFLOW PROJEC	43,134			
1995	8	56	E314-1-56	0	138	SWITCHGEAR TEST & REHAB	40,249			
1997	6	56	E316-1-56	0	139	SLUD COLL EQUIP-PRIM SED TANKS	1,217,759			
1997	6	56	E319-1-56	0	138	REPL LV SWITCHGEAR CIRCUIT BKR	206,658			
1996	6	56	G238-1-56	0	127	GRIT STORAGE AREA	21,217			
1996	6	56	G239-1-56	0	131	GEN -EQUIP STORAGE BLDG	10,241			
1991	5	56	G303-1-56	0	131	GEN CONST-EQUIP STORAGE BLDG	584,110			
1990	10	56	G304-1-56	0	131	MECHANICAL-EQUIP STORAGE BLDG	110,918			
1991	5	56	G305-1-56	0	131	ELECTRICAL-EQUIP STORAGE BLDG	111,737			
1996	4	56	G307-1-56	0	132	SLUD TRSF PUMP SEAL WTR SYS	528,525			
1991	3	56	G308-1-56	0	127	NEW GRIT STORAGE	137,388			
1976	1	56	M-1-5698-1-56	0	138	TEST BORING-VAR LOC	0	This item does not appear in the 2011 FAL.		
1995	5	56	N729-3-56	0	138	RELOC OF RPZ BACKFLOW PRE	95,046			
1972	5	56	P-295-1-56	0	138	ENGR SERVICES	0	Retired 2017		
1975	2	56	P-323-1-56	0	138	DESIGN FOR SE WPCP	229,940			
1976	1	56	P-332-1-56	0	138	SOIL INVESTIGATION	0	Retired 2017		
1978	9	56	P-357-1-56	0	138	ENGR SERV-ADVICE,CONSULT,OPER	0	Retired 2011		
1990	6	56	P-357-1N-56	0	138	ADVICE,CONSULT&STUDI	0	Retired 2017		
0	0	56	P-455-1-56	0	127	DESIGN ADMINISTRATIVE COMPLEX	0	This item does not appear in the 2002 FAL.		
1989	6	56	P-484-1-56	0	127	CPM SCHEDULING SERVICE	2,930,341			
1988	8	56	PV07930-1-56	0	138	ELECTRIC SERVICE LINE	5,032			
1986	12	56	PV09054-1-56	0	138	GEN CONST & MECH WORK	13,230			
1987	6	56	PV39897-1-56	0	131	NEW ROOFING - WAREHOUSE BLDG	10,140			
1986	6	56	PV41701-1-56	0	138	GEN CONST & MECH WORK	87,562			
1951	6	56	SD-101-SE-1-56	0	132	INTERCEPTING SEWER	2,476,035			
1951	3	56	SD-105-SE-1-56	0	132	INTERCEPTING SEWER	1,847,598			
1952	4	56	SD-106-SE-3-56	0	138	48IN RC PIPE	117,581			
1952	4	56	SD-106-SE-4-56	0	138	EXCAVATION&PILES	274,702			
1953	9	56	SD-112-SE-1-56	0	138	COLL SYS INTERCEPT C	74,173			
1956	10	56	SD-114-G-7-56	0	138	ELEC INSTL	29,103			
1955	6	56	SD-114-SE-1-56	0	138	COLL SYS INTERCEP SE	3,417,035			
0	0	56	SD-140-SE-2-56	0	138	EFFL&STORMWTR COND-EXCAV DREDG	0	This item does not appear in the 2002 FAL.		
1955	11	56	SD-141-SE-1-56	0	138	50000 GAL WTR TANK	40,850			
0	0	56	SD-145-GO-3-56	0	138	LADDER SAFETY DEVICE-WATR STOR	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-156-GO-2-56	0	138	CNTRL CONDUCC-SEWPCP	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-165-GO-1-56	0	138	F&I ELEC CONT-CRANE	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-165-GO-2-56	0	138	F&I ELEC CONTR-CRANE	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-198-SE-1-56	0	138	2 TON CRANE	0	This item does not appear in the 2002 FAL.		
1969	7	56	SD-198-SE-3-56	0	138	CONCRETE PILES	7,964			
1969	7	56	SD-198-SE-4-56	0	131	CONSTR OF EQUIP BLDG	100,703			
0	0	56	SD-207-SEO-1-56	0	127	HOTWTR HEAT-NEW OFF-TOILET-LOC	0	This item does not appear in the 2003 FAL.		
1970	6	56	SD-208-SEO-1-56	0	131	PLUMBING FOR EQUIP BLDG	11,774			
0	0	56	SD-209-SEO-1-56	0	127	GEN CONSTR-NEW OFFIC	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-211-SEO-1-56	0	138	ARC ELECT LIGHT-EQUIPMENT BLDG	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-214-SE-1-56	0	129	PLUMBING-GREASE BURNER BLDG	0	This item does not appear in the 2002 FAL.		
0	0	56	SD-224-SEO-1-56	0	128	INST-BTRFLY VALV-FLOC TANKS	0	This item does not appear in the 2002 FAL.		
1983	4	56	SD-230-SE-1-56	0	138	HIGH MST,LOW LEV STREET LIGHTI	4,300			
1980	6	56	SD-230-SE-1N-56	0	138	HIGHMAST&STREET LEVEL LIGHT-SE	128,084			
1997	6	56	72009-1-56	0	127	REPL GRIT CHANNEL SLUICE GATE	79,927			
1997	7	56	E310-1-56	0	127	REHAB GRIT TRANSPORT SY	0	Retired 2011		
0	0	56	E311-1-56	0	133	REPL LIQUID CHLORINE LINES	0	Value changed from 1999 FAL		
1997	8	56	E318-1-56	0	140	INSTL SLUDGE COLL EQUIP-FINAL	3,214,897			
1998	6	56	P1148-3-56	0	127	MOD GRIT, SCREENINGS, SCUM DIS	0	Retired 2017		
1999	6	56	70003-2-56	0	138	HIGH MAST LIGHTING SYS OVERHAU	77,581			
1998	8	56	72000-1-56	0	127	REPL SLUICE GATES	182,364			
1999	2	56	72002-1-56	0	126	REPL LOW/VOLT SWITCHGEAR-IPS-S	182,715			
0	0	56	72010-1-56	0	127	EMERG REPR-INFLUENT BAR RACK	0	This item does not appear in the 2002 FAL.		

2000	3	56	70003-5-56	0	138	HIGH MAST LIGHTING SYS OVERHAU	47,225	Projects added since the 1999 FAL.
1998	8	56	72000-2-56	0	127	REPL SLUICE GATES	1,392	Projects added since the 1999 FAL.
2001	2	56	72001-1-56	0	138	REFURBISING ELEVATED STEEL WTR	367,143	Projects added since the 1999 FAL.
2000	12	56	72004-1-56	0	138	GEN CONST-ADMIN/MAINT BLDG	874,832	Projects added since the 1999 FAL.
2000	9	56	72005-1-56	0	138	HVAC WORK-ADMIN/MAINT BLDG	182,943	Projects added since the 1999 FAL.
2000	9	56	72006-1-56	0	138	PLUMB-ALTERATIONS ADMIN/MAINT	105,580	Projects added since the 1999 FAL.
2000	8	56	72007-1-56	0	138	ELECT-ALTER ADMIN/MAINT BLDG	194,554	Projects added since the 1999 FAL.
1998	9	56	E315-1-56	0	134	REHAB INFLUENT PUMPS	1,010,075	Projects added since the 1999 FAL.
1998	7	56	E317-1-56	0	136	EXT PAINTING-CRYOGENIC OXYGEN	0	Retired 2011
1999	7	56	P-967-3-56	0	138	ENG SERV-VARIOUS PROJECTS	37,832	Projects added since the 1999 FAL.
2001	6	56	P1198-1-56	0	133	ENG DESIGN SERV SOD HYPOCHLORI	0	Retired 2011
2001	6	56	P1201-3-56	0	138	CONVER HALON SUPPRESSION SYS	0	Retired 2011
2002	6	56	P1225-5-56	0	138	ENG SERV-METCALF & EDDY	8,531	Partial Retirement in 2017
2002	6	56	P1226-4-56	0	138	ENG SERV-HAZEN & SAWYER	33,429	Partial Retirement in 2017
2002	3	56	72003-1-56	0	138	ACCESS CONT & ALARM SYS	714,370	Projects added since the 2002 FAL.
2001	12	56	72008-1-56	0	136	REPL CHANNEL/AERATION AIR BLOW	1,279,953	Projects added since the 2002 FAL.
2002	5	56	72017-1-56	0	136	ELECT-CHANNEL/AERATION AIR BLO	352,275	Projects added since the 2002 FAL.
2001	12	56	72025-1-56	0	127	MECH REHAB GRIT COLL SCREW CON	541,324	Projects added since the 2002 FAL.
2002	8	56	72027-1-56	0	138	CONST/APPURT-PREFAB BLDG-SWITC	320,128	Projects added since the 2002 FAL.
2002	7	56	72028-1-56	0	138	MECH/APPURT-PREFAB BLDG-SWITCH	73,267	Projects added since the 2002 FAL.
2002	8	56	80003-4-56	0	138	LIGHTING EFFICIENCY IMP	249,409	Projects added since the 2002 FAL.
2003	6	56	P1201-8-56	0	138	CONVER HALON SUPPRESSION SYS	0	Retired 2011
2003	12	56	72011-1-56	0	138	INSTLNEWDIST CONTSYS	2,998,664	
2003	11	56	72018-1-56	0	140	REPL PRIMSLUD TRF PUMPS	0	Retired 2016
2003	1	56	72019-1-56	0	126	ELECT-REPL EXIST PRIMPUMPS	0	Retired 2016
2003	2	56	72020-1-56	0	127	HVAC RENOV-IPS,SCREEN,GRIT FAC	455,974	
2007	0	56	72021-1-56	0	128	GEN CON- SODHYDRO FACILITIES WTR DE	2,226,039	0
2005	11	56	72022-1-56	0	128	ELECT SOD HYPOCHLORITE FAC	161,493	
2006	2	56	72023-1-56	0	128	HVAC SOD HYPOCHLORITE FAC	198,415	
2005	6	56	72024-1-56	0	128	PLUMB SOD HYPOCHLORITE FAC	138,953	
2003	6	56	72026-1-56	0	135	REPL LVSWITCHGEAR EFFLUENTPS	550,890	
2002	11	56	72029-1-56	0	138	ELECT-PREFAB BLDG-SWITCHGEAR	300,319	
2004	12	56	72030-1-56	0	136	REHAB COMP/MONITOR CONT AERATI	1,563,504	
2003	12	56	72031-1-56	0	127	GRIT PAD IMPROVEMENTS	321,761	
2003	10	56	72034-1-56	0	134	NEWPRECASTCONCRETE-SAMPLING	65,981	
2004	4	56	72036-1-56	0	138	INSPEC/CALIBRAT-ELECTPW SYS	281,446	
2005	5	56	72037-1-56	0	134	REPL INFLUENT PUMP CONTROLS	455,208	
2005	2	56	72041-1-56	0	138	REPL WINDOWS VAR BLDGS	743,305	
2005	4	56	72042-1-56	0	138	HVAC WK COMPRESSOR	399,764	
2007	0	56	72046-1-56	0	127	TELEPHONE LINES - SEWPCP	0	Retired 2011
2005	5	56	72047-1-56	0	138	MOD PLANT RDS TRUCK ACCESS	288,512	
1998	1	56	E313-1-56	0	139	PRIM SED-SLIDE GATES,REHAB FLO	450,981	
2004	6	56	P1198-3-56	0	128	ENGDESIGN SER HYPOCHLORITE	1,766	Partial Retirement in 2017
2005	6	56	P1326-2-56	0	138	BURNSENG-PRE-CONSTSERVICES	0	Retired 2011
2005	6	56	P1225-9-56	0	141	ENGSERV-SCUMREMOVAL	0	Retired 2011
2005	6	56	P1226-5-56	0	127	HAZEN-REPAIR GRITEJECTORS	0	Retired 2011
2005	1	56	P1229-1-56	0	141	RENEWSCUM TROUGHS FINAL TKS	0	Retired 2011
2004	12	56	P4115136-1-56	0	138	Commun and Control Telecom	0	Retired 2011
2004	11	56	P5108029-1-56	0	138	Telecom Commun Control	0	Retired 2011
2004	12	56	P5103093-1-56	0	138	Telecom Commun Control	0	Retired 2011
2004	9	56	V16321618-1-56	0	138	Inst Telecom Equip	11,701	
2004	9	56	V16657618-1-56	0	138	Inst Telecom Equip	36,125	
2004	10	56	V25354618-1-56	0	138	Inst Telecom Equip	41,063	
2007	2	56	71074-1-56	0	128	GEN CON- SODHYDRO FACILITIES WTR DE	0	Retired 2016
2008	7	56	72038-1-56	0	140	Renew Scum Pipes in Final Tanks - SE	1,805,504	
2009	12	56	72044-1-56	0	127	GEN. AND MECH WORK FOR REHAB OF GR	1,997,749	
2008	3	56	72045-1-56	0	138	Electric & Instrumentation Work	1,045,687	
2007	8	56	72048-56	0	134	MODIFICATIONS TO THE ROTARY BRIDGE	257,520	
2008	3	56	72050-56	0	138	EXPANSION JOINT REPAIRS AND GALLERY	1,001,897	
2009	11	56	72053-56	0	138	GENERAL CONSTRUCTION AND MECHANIC	2,858,760	
2008	5	56	72054-56	0	139	REHAB. OF PRIMARY SEDIMENTATION TAN	4,890,930	
2009	10	56	72055-56	0	138	Electric for Haul Improvements	328,215	
2010	4	56	72060-56	0	138	REPLACEMENT OF LOW VOLTAGE SWITCH	326,473	
2010	1	56	72061-56	0	128	Rehab Of Sodium Hypochlorite Mixing Chamber	767,253	
2011	2	56	72063-56	0	127	Rehab of Grit Tanks	2,115,833	
2001	6	56	P1198-2-56	0	128	**ENGDESIGN SERV SODHYPOCHLORI**	8,594	Partial Retirement in 2017
2005	6	56	P1225-56	0	140	**ENGSERV-SCUMREMOVAL **	8,716	Partial Retirement in 2017
2005	6	56	P1226-56	0	127	**HAZEN-REPAIR GRITEJECTORS **	137,212	Partial Retirement in 2017
2005	1	56	P1229-56	0	140	**RENEWSCUM TROUGHS FINAL TKS **	75,745	Partial Retirement in 2017
2005	6	56	P1326-56	0	138	**BURNSENG-PRE-CONSTSERVICES **	0	Retired 2017
1978	9	56	P-357-2-56	0	138	**ADVICE,CONSULT&STUDI **	0	Retired 2017
2004	12	56	P4115136-56	0	138	**Commun and Control Telecom **	0	Retired 2017
2004	12	56	P5103093-56	0	138	**Telecom Commun Control **	0	Retired 2017

2004	11	56	P5108029--56	0	138	**Telecom Commun Control **	0	Retired 2017
1976	1	56	M-198-1-56	0	138	**TEST BORING-VARLOC **	16,052	
2013	4	56	72064--56	0	138	REPLACE SLUDGE PUMPS/SLUDGE GRINDER	1,219,862	
2013	4	56	72065--56	0	138	REPLACE SLUDGE PUMPS/SLUDGE GRINDER	550,490	
2014	4	56	72067--56	0	138	NEW POLYURETHANE/SILICONE ROOFING	586,064	
2014	3	56	72084--56	0	138	Install- solar photovoltaic energy generation system-	2,246,362	
2015	6	56	72084--56	0	138	Install- solar photovoltaic energy generation system-	3,551	
2016	6	56	72084--56	0	138	Install- solar photovoltaic energy generation system-	163,835	
2007	2	56	72046--56	0	138	TELEPHONE LINES - SEWPCCP	29,253	
2016	6	56	72044--56	0	127	GEN. AND MECH WORK FOR REHAB OF GR	1,330	
2016	6	56	72061--56	0	128	Rehab Of Sodium Hypochlorite Mixing Chamber	6,521	
2016	4	56	72076--56	0	127	REPLACEMENT OF INFLUENT BAR RACKS-	3,214,906	
		56		0	138	General Plant	2,118,640	
TOTAL SE PLANT ASSETS (Non-WPAP)							64,770,534	x

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SEPA2 - SE Plant Assets (WPAP) as of 6/30/2016		P.N. 135647.0100		February 11, 2018 9:00 a.m.						
Reference: PWD 2017 Assets.xls										
Year	Month	Depot	Work Order	WPAP	Plant Function ID	Description	Cost			
							\$			
1989	3	56	E240-1-56	1	138	SITE PREP FOR NEW PLANT	28,736			
1987	6	56	E241-1-56	1	140	GEN CONST-FINAL SEDIMENTAT TNK	18,677,434	Value changed from 1999 FAL		
1987	11	56	E241-2-56	1	140	GEN CONST&MECH-FINAL SED TANKS	9,251			
1987	6	56	E242-1-56	1	140	ELECTRIC-FINAL SEDIMENTAT TANK	1,728,720			
1988	6	56	E242-2-56	1	140	ELECTRIC-FINAL SEDIMENTAT TANK	69,440			
1988	12	56	E242-3-56	1	140	ELECTRIC-FINAL SEDIMENTAT TANK	28,315			
1986	1	56	E243-1-56	1	140	PLUMBING-FINAL SEDIMENTATION T	94,191			
1986	6	56	E244-1-56	1	140	HEAT&VENT-FINAL SEDIMEN TANKS	110,018			
1987	6	56	E245-1-56	1	136	GEN CONST & MECH EQ-AERATION T	13,800,230	Value changed from 1999 FAL		
1988	6	56	E245-2-56	1	136	GEN CONST & MECH EQ-AERATION T	66,696			
1990	8	56	E245-3-56	1	136	GEN CONST & MECH EQ-AERATION T	67,720			
1988	6	56	E246-2-56	1	136	ELECTRICAL - AERATION TANKS	242,861			
1987	6	56	E246-3-56	1	136	ELECTRICAL AERATION TANKS	1,379,766			
1986	9	56	E247-1-56	1	136	PLUMBING-OXYGEN AERATION TNKS	132,837			
1987	4	56	E248-1-56	1	136	HEAT,VENT-OXYGEN AERATION TANK	102,047			
1987	6	56	E249-1-56	1	137	OXYGEN SUPPLY SYSTEM	0	Retired 2011		
1988	6	56	E249-2-56	1	137	OXYGEN SUPPLY SYSTEM	0	Retired 2011		
1990	11	56	E249-3-56	1	137	OXYGEN SUPPLY SYSTEM	0	Retired 2011		
1987	6	56	E250-1-56	1	137	OXYGEN SUPPLY SYSTEM- SEE E249	0	Retired 2011		
1988	6	56	E250-2-56	1	137	OXYGEN SUPPLY SYSTEM- SEE E249	0	Retired 2011		
1986	3	56	E251-1-56	1	138	13.2KV FEEDER,13.8 METLCLD SWI	665,772			
1987	6	56	E252-1-56	1	138	DRAINAGE & FENCING,YARD PIPING	1,055,121			
1987	10	56	E252-2-56	1	138	DRAINAGE & FENCING,YARD PIPING	6,085			
1997	6	56	E252-3-56	1	138	DRAINAGE & FENCING, YARD PIPIN	0	This item does not appear in the 2002 FAL.		
1987	6	56	E253-1-56	1	137	GEN CONST&MECH-COMPRESSOR BLDG	4,873,495	Value changed from 1999 FAL		
1988	6	56	E253-2-56	1	137	GEN CONST&MECH-COMPRESSOR BLDG	5,770			
1990	7	56	E253-3-56	1	137	GEN CONST&MECH-COMPRESSOR BLDG	55,841			
1987	6	56	E254-1-56	1	137	ELECTRIC - COMPRESSOR BLDG	2,330,997			
1988	6	56	E254-2-56	1	137	ELECTRIC - COMPRESSOR BLDG	12,210			
1988	8	56	E254-3-56	1	137	COMPRESSOR BLDG	3,112			
1987	6	56	E255-1-56	1	137	PLUMBING - COMPRESSOR BLDG.	634			
1986	5	56	E256-1-56	1	137	HEAT,VENT,AIR - COMPRESS BLDG	326,759			
1988	5	56	E260-2-56	1	134	GEN CONST&MECH-INFLUENT PUMPIN	59,135			
1987	6	56	E260-3-56	1	134	GEN CONST & MECH-INFLUENT PUMP	13,042,228	Value changed from 1999 FAL		
1987	6	56	E261-1-56	1	134	HEAT&VENT-INFLUENT PUMPING STA	1,317,254			
1988	6	56	E261-2-56	1	134	HEAT&VENT-INFLUENT PUMPING STA	48,044			
1989	6	56	E261-3-56	1	135	HEAT&VENT-INFLUENT PUMPING STA	5,758			
1987	6	56	E262-1-56	1	134	PLUMBING-INFLUENT PUMPING STAT	206,816			
1988	3	56	E262-2-56	1	134	PLUMBING-INFLUENT PUMPING STAT	11,368			
1987	6	56	E263-1-56	1	134	ELECTRIC-INFLUENT PUMPING STAT	1,672,260			
1988	6	56	E263-2-56	1	134	ELECTRIC-INFLUENT PUMPING STAT	27,846			
1990	1	56	E263-3-56	1	134	ELECTRIC-INFLUENT PUMPING STAT	31,159			
1988	6	56	E268-2-56	1	139	GEN CONST&MECH-PRIMARY SED TAN	16,300			
1989	6	56	E268-3-56	1	139	GEN CONST&MECH-PRIMARY SED TAN	9,428			
1987	6	56	E268-4-56	1	139	GEN CONST&MECH-PRIMARY SED TAN	14,934,054	Value changed from 1999 FAL		
1987	6	56	E269-1-56	1	139	HEAT&VENT-PRIMARY SED TANKS	330,709			
1987	11	56	E269-2-56	1	139	HEAT&VENT-PRIMARY SED TANKS	38,592			
1987	4	56	E270-1-56	1	139	PLUMBING-PRIMARY SED TANKS	108,242			
1987	6	56	E271-1-56	1	139	ELECTRIC- PRIMARY SED TANKS	1,356,350			
1987	11	56	E271-2-56	1	139	ELECTRIC- PRIMARY SED TANKS	9,709			
1986	2	56	E272-2-56	1	141	GEN CONST SCUM CONCENT FACIL	2,238,902			
1986	12	56	E273-1-56	1	141	HEAT&VENT-SCUM CONCENT FACILIT	0			
1986	6	56	E274-1-56	1	141	PLUMBING - SCUM CONCENT FACILI	0			
1986	9	56	E275-1-56	1	141	ELECTRIC-SCUM CONCENTRATION FA	0			
1987	11	56	E276-2-56	1	135	GEN CONST&MECH-EFFLUENT PUMP S	25,410			
1987	6	56	E276-3-56	1	135	GEN CONST-&MECH-EFFLUENT PUMP	8,558,549			
1987	4	56	E277-1-56	1	135	HEAT&VENT-EFFLUENT PUMPING STA	465,402			
1986	4	56	E278-1-56	1	135	PLUMB - EFFLUENT PUMPING STAT	92,634			
1987	6	56	E279-1-56	1	135	ELECTRIC - EFFLUENT PUMPING ST	1,054,058	Value changed from 1999 FAL		
1988	6	56	E279-2-56	1	135	ELECTRIC - EFFLUENT PUMPING ST	41,081			
1988	8	56	E279-3-56	1	135	ELECTRIC - EFFLUENT PUMPING ST	9,182			
1987	6	56	E280-1-56	1	127	GEN CONST&MECH-ADMINISTRATION	2,429,690			
1988	1	56	E280-2-56	1	126	GEN CONST&MECH-ADMINISTRATION	46,229			
1987	6	56	E281-1-56	1	138	HEAT&VENT,&FUME HOOD BLOWER	0	Retired 2011		
1987	12	56	E281-2-56	1	138	HEAT&VENT,FUME HOOD BLOWER	0	Retired 2011		
1986	9	56	E282-1-56	1	127	PLUMBING - ADMINISTRATION BLDG	174,876			

1987	6	56	E283-1-56	1	126	ELECTRIC - ADMINISTRATION BLDG	672,951		
1988	6	56	E283-2-56	1	127	ELECTRIC - ADMINISTRATION BLDG	68,962		
1988	12	56	E283-3-56	1	127	ELECTRIC - ADMINISTRATION BLDG	17,482		
1987	6	56	E284-1-56	1	138	COMPUTER MONITOR & CONTROL SYS	0	This item does not appear in the 2002 FAL.	
1987	11	56	E284-2-56	1	138	COMPUTER MONITOR & CONTROL SYS	0	This item does not appear in the 2002 FAL.	
1987	6	56	E290-1-56	1	131	GEN CONST-WAREHOUSE & STORAGE	679,228		
1988	3	56	E290-2-56	1	131	GEN CONST-WAREHOUSE & STORAGE	7,822		
1987	6	56	E293-1-56	1	131	ELECTRIC-WAREHOUSE & STORAGE	240,511		
1988	6	56	E293-2-56	1	131	ELECTRIC-WAREHOUSE & STORAGE	18,369		
1988	10	56	E293-3-56	1	131	ELECTRIC-WAREHOUSE & STORAGE	6,148		
1989	6	56	E294-1-56	1	138	GRAD.PAV.DRAIN.LANDSCAPE.PIPIN	2,998,135		
1990	6	56	E294-2-56	1	138	GRAD.PAV.DRAIN.LANDSCAPE.PIPIN	129,912		
1990	11	56	E294-3-56	1	138	GRAD.PAV.DRAIN.LANDSCAPE.PIPIN	16,327		
1989	6	56	E295-1-56	1	138	HIGH MAST LIGHTING	163,152	Value changed from 1999 FAL	
1989	11	56	E295-2-56	1	138	HIGH MAST LIGHTING	4,823		
1987	6	56	E296-1-56	1	138	GEN CONST&MECH-MAINTENANCE FAC	3,143,165		
1988	1	56	E296-2-56	1	138	GEN CONST&MECH-MAINTENANCE FAC	84,424		
1989	6	56	E297-1-56	1	138	HEAT.VENT-MAINTENANCE FACILITI	273,600		
1987	8	56	E297-2-56	1	138	HEAT.VENT-MAINTENANCE FACILITY	6,612		
1987	6	56	E298-1-56	1	138	PLUMBING-MAINTENANCE FACILITIE	181,858		
1988	1	56	E298-2-56	1	138	PLUMBING-MAINTENANCE FACILITIE	41,618		
1987	6	56	E299-1-56	1	138	ELECTRIC-MAINTENANCE FACILITIE	601,062		
1988	6	56	E299-2-56	1	138	ELECTRICAL - MAINT. FACILITIES	30,519		
1989	4	56	E299-3-56	1	138	ELECTRICAL - MAINT. FACILITIES	14,067		
1987	4	56	E300-1-56	1	138	LOW LEVEL LIGHTING	65,473		
1981	6	56	SD-240-SE-1-56	1	138	SITE PREP FOR NEW PLANT	8,248,157		
1980	5	56	SD-240-SE-1N-56	1	138	SITE PREP FOR NEW PLANT	15,690,895	Value changed from 1999 FAL	
1985	2	56	SD-255-SE-1-56	1	137	PLUMBING - COMPRESSOR BLDG.	275,780		
1983	6	56	SD-258-SE-1-56	1	133	TWIN 7X9"HIGH EFFLU CONDUIT	9,217,648		
1990	9	56	E249-4-56	1	137	OXYGEN SUPPLY SYSTEM	0	Retired 2011	
TOTAL SE PLANT ASSETS (WPAP)							137,134,023	137,134,023	0
TOTAL SE PLANT ASSETS							201,904,557		

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)							DRAFT - For Discussion Only			Test Year	2019	Budget Yr	2017	Ver. 1a
SPLTFNC - All Plants - Assets by Plant Function as of 6/30/2016	P.N. 135647.0100							February 11, 2018 9:00 a.m.							Plant-9
Plant Function Description	Plant Function ID	NE	NE	SW	SW	SE	SE	WPAP Fixed Asset Listing Total Cost Increased to Recognize Additional Engineering and Design Costs ("Soft Costs")							
		Non-WPAP	WPAP	Non-WPAP	WPAP	Non-WPAP	WPAP	NE-WPAP	SW-WPAP	SE-WPAP	(a)	(a)	(a)		
		Cost	Cost	Cost	Cost	Cost	Cost	0.848	0.809	0.821					
		Plant-2	Plant-3	Plant-4	Plant-5	Plant-6	Plant-7	Plant-8							
NE Grit Chamber	66	7,509,543	0	0	0	0	0	0	0	0	0	0	0	0	
NE Pumping Station	67	464,097	0	0	0	0	0	0	0	0	0	0	0	0	
NE Services Building	68	289,605	0	0	0	0	0	0	0	0	0	0	0	0	
NE Meters, Vaults and Connection Sewers	69	266,371	7,758,041	0	0	0	0	0	9,148,633	0	0	0	0	0	
NE Settling & Aeration Tanks	70	12,555,167	0	0	0	0	0	0	0	0	0	0	0	0	
NE Blower Bldg., Supernat. Tank, Scum Ejector Bldg	71	2,698,751	13,560,998	0	0	0	0	0	15,991,743	0	0	0	0	0	
NE Sludge Digestion System	72	10,779,943	28,216,749	0	0	0	0	0	33,274,468	0	0	0	0	0	
NE Sludge Dewatering	73	2,350,232	0	0	0	0	0	0	0	0	0	0	0	0	
NE Lagoons	74	0	0	0	0	0	0	0	0	0	0	0	0	0	
NE Locker Bldg.	75	0	0	0	0	0	0	0	0	0	0	0	0	0	
NE Chlorination Facilities	76	4,787,803	0	0	0	0	0	0	0	0	0	0	0	0	
NE Admin. Bldg. (b)	77	10,777,555	13,962,557	0	0	0	0	0	16,465,279	0	0	0	0	0	
NE Heating Plant	78	3,451,199	0	0	0	0	0	0	0	0	0	0	0	0	
NE Electrical Substation	79	3,908,781	0	0	0	0	0	0	0	0	0	0	0	0	
NE Sludge Incinerators	80	1,522,125	0	0	0	0	0	0	0	0	0	0	0	0	
NE Site	81	18,920,831	16,295,928	0	0	0	0	0	19,216,896	0	0	0	0	0	
NE Sludge Residue Fusion Plant	82	0	0	0	0	0	0	0	0	0	0	0	0	0	
NE Aeration Tank No. 1	83	3,458,468	31,618,289	0	0	0	0	0	37,285,718	0	0	0	0	0	
NE Prelim. Treatment Bldg.	84	751,912	33,610,447	0	0	0	0	0	39,634,961	0	0	0	0	0	
NE Elect. Bldg.	85	589,603	939,852	0	0	0	0	0	1,108,316	0	0	0	0	0	
NE Primary Sedimentation Tanks	86	26,942,347	43,244,890	0	0	0	0	0	50,996,333	0	0	0	0	0	
NE Final Sedimentation Tanks	87	5,411,473	20,953,278	0	0	0	0	0	24,709,054	0	0	0	0	0	
NE Effluent Conduit	88	0	1,877,876	0	0	0	0	0	2,214,476	0	0	0	0	0	
NE Sludge Thickener Bldg.	89	4,586,272	33,796,082	0	0	0	0	0	39,853,870	0	0	0	0	0	
NE Sludge Transfer Station, Proc. & Loading Term.	90	336,973	20,038,560	0	0	0	0	0	23,630,377	0	0	0	0	0	
NE Barges	91	6,277,722	4,484,823	0	0	0	0	0	5,288,706	0	0	0	0	0	
NE Engineering, Design	92	23,173,767	0	0	0	0	0	0	0	0	0	0	0	0	
SW Screen, Blower, Prim. Sludge PS, Grit	93	0	0	2,941,179	3,622,983	0	0	0	0	4,478,347	0	0	0	0	
SW Grease Burner	94	0	0	1,881,393	0	0	0	0	0	0	0	0	0	0	
SW Settling Tanks	95	0	0	0	0	0	0	0	0	0	0	0	0	0	
SW Sludge Handling & Machine Shop	96	0	0	7,599,142	8,863	0	0	0	0	10,956	0	0	0	0	
SW Sludge Digestion	97	0	0	3,621,506	0	0	0	0	0	0	0	0	0	0	
SW Belt Filter System	98	0	0	0	0	0	0	0	0	0	0	0	0	0	
SW Chlorination Facilities	99	0	0	1,175,809	0	0	0	0	0	0	0	0	0	0	
SW Office & Equip. Building	100	0	0	0	0	0	0	0	0	0	0	0	0	0	
SW Sludge Disposal	101	0	0	0	0	0	0	0	0	0	0	0	0	0	
SW Electrical Substation	102	0	0	2,694	37,351	0	0	0	0	46,169	0	0	0	0	
SW Waste Gas Burner	103	0	0	0	0	0	0	0	0	0	0	0	0	0	
SW Elevated Water Tank	104	0	0	95,617	301,439	0	0	0	0	372,607	0	0	0	0	
SW Dewatering Facilities	105	0	0	0	0	0	0	0	0	0	0	0	0	0	
SW General Improvements	106	0	0	7,423,205	85,803	0	0	0	0	106,061	0	0	0	0	
SW Site	107	0	0	36,999,613	18,199,622	0	0	0	0	22,496,443	0	0	0	0	
SW Compressor Bldg.	108	0	0	0	2,920,802	0	0	0	0	3,610,386	0	0	0	0	
SW Aeration Tanks	109	0	0	676,633	12,831,828	0	0	0	0	15,861,345	0	0	0	0	
SW Sedimentation Tanks	110	0	0	13,182,871	22,937,384	0	0	0	0	28,352,761	0	0	0	0	
SW Electrical Bldg.	111	0	0	688,454	1,518,011	0	0	0	0	1,876,404	0	0	0	0	
SW Oxygen Supply	112	0	0	3,077,282	11,035,428	0	0	0	0	13,640,826	0	0	0	0	
SW Effluent PS	113	0	0	195,587	4,639,812	0	0	0	0	5,735,244	0	0	0	0	
SW Admin. Bldg.	114	0	0	36,491,963	2,262,150	0	0	0	0	2,796,230	0	0	0	0	
SW Shop & Maintenance Bldg.	115	0	0	217,817	2,650,056	0	0	0	0	3,275,718	0	0	0	0	
SW Warehouse	116	0	0	961,394	1,554,864	0	0	0	0	1,921,958	0	0	0	0	
SW Primary Sedimentation Tanks	117	0	0	13,893,200	8,712,494	0	0	0	0	10,769,461	0	0	0	0	
SW Preliminary Treatment Building	118	0	0	4,408,954	18,594,577	0	0	0	0	22,984,644	0	0	0	0	
SW Inflow PS	119	0	0	461,414	4,946,279	0	0	0	0	6,114,066	0	0	0	0	
SW Scum Concentration Bldg.	120	0	0	0	1,074,169	0	0	0	0	1,327,774	0	0	0	0	
SW Sludge Thickener Bldg.	121	0	0	1,852,208	13,471,207	0	0	0	0	16,651,677	0	0	0	0	
SW Sludge Digestion Facilities	122	0	0	3,596,894	36,102,364	0	0	0	0	44,625,913	0	0	0	0	
SW Composting Facilities	123	0	0	989,190	0	0	0	0	0	0	0	0	0	0	
SW Sludge Gas Facilities	124	0	0	8,643,445	8,412,442	0	0	0	0	10,398,569	0	0	0	0	
SW Outfall Line	125	0	0	0	0	0	0	0	0	0	0	0	0	0	
SE Main PS	126	0	0	0	0	239,159	719,180	0	0	0	0	0	875,981	0	
SE Screen, Admin, Garage, Mach. Shop, Grit, Chmbrs	127	0	0	0	0	12,138,718	2,691,010	0	0	0	0	0	3,277,722	0	
SE Settling Tanks & Flocculation Channel	128	0	0	0	0	3,509,034	0	0	0	0	0	0	0	0	
SE Grease Bldg.	129	0	0	0	0	0	0	0	0	0	0	0	0	0	
SE Blower & Primary Sludge PS	130	0	0	0	0	0	0	0	0	0	0	0	0	0	

SE Storage Bldg.	131	0	0	0	0	945,364	952,078			0	0	1,159,657			
SE Sludge Force Main to SW Plant	132	0	0	0	0	4,852,158	0			0	0	0			
SE Main Effluent Conduit	133	0	0	0	0	0	9,217,648			0	0	11,227,342			
SE Influent PS	134	0	0	0	0	1,788,785	16,416,110			0	0	19,995,262			
SE Effluent PS	135	0	0	0	0	550,890	10,252,074			0	0	12,487,301			
SE Aeration Tanks	136	0	0	0	0	3,195,732	15,792,157			0	0	19,235,270			
SE Compressor Bldg.	137	0	0	0	0	0	7,884,598			0	0	9,603,652			
SE Site	138	0	0	0	0	25,886,164	33,449,513			0	0	40,742,403			
SE Primary Sedimentation Tanks	139	0	0	0	0	6,559,670	16,803,384			0	0	20,466,972			
SE Final Sedimentation Tanks	140	0	0	0	0	5,104,862	20,717,369			0	0	25,234,311			
SE Scum Concentration Facility	141	0	0	0	0	0	2,238,902			0	0	2,727,043			
		NE Non-WPAP	NE WPAP	SW Non-WPAP	SW WPAP	SE Non-WPAP	SE WPAP	Total	NE Non-WPAP	NE WPAP	SW Non-WPAP	SW WPAP	SE Non-WPAP	SE WPAP	
		151,810,542	270,358,370	151,077,463	175,919,928	64,770,534	137,134,023	951,070,861	151,810,542	318,818,830	151,077,463	217,453,559	64,770,534	167,032,916	
			422,168,912		326,997,391		201,904,557	951,070,861		470,629,372		368,531,022		231,803,450	
										Soft Costs Equal Difference in Totals =				\$1,070,963,845 - \$951,070,861	119,892,984

(a) These percentages are the ratios of Construction Costs to Total Costs from the PWD Reimbursement Status Report supplied by Joe Clare on 10/7/99 (BD-28a). The differences between Construction Costs and Total Costs are "soft costs" representing engineering, design, and administrative costs not included in the fixed asset listing.

(b) \$9,514,300.0 of the WPAP facilities received only about 3% federal grants, per Joe Clare 10/7/99 email to JRM (filed with PN 31416.0100 Miscellaneous Correspondence).

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SLOCID - All Locations - Total Assets by Location ID as of 6/30/2016		P.N. 135647.0100		February 11, 2018 9:00 a.m.						Plant-10
Depot	Location	Sum Of Engineering Cost \$	Sum Of Construction Cost \$	Total \$						
0	Building & Related - Undetermined Location (a)	198,216,638	2,146,844,999	2,345,061,637						
1	Building & Related - Belmont RWPS	315,148	3,793,891	4,109,039						
2	Building & Related - Belmont FWPS	1,229,293	12,397,608	13,626,901						
3	Building & Related - Belmont Filters	9,633,147	81,549,349	91,182,496						
4		0	333,687	333,687						
5	Building & Related - HS to Roxborough Expressway	0	398,929	398,929						
6	Building & Related - Queen Lane RWPS	1,024,862	9,365,183	10,390,045						
7	Building & Related - Queen Lane HS FWPS	2,359,498	21,733,294	24,092,792						
8	Building & Related - Queen Lane Filters	7,830,855	96,820,628	104,651,484						
11	Building & Related - Roxborough HS FWPS	300,225	2,963,178	3,263,404						
12	Building & Related - Upper Roxborough Filters	210,540	4,363,124	4,573,664						
13	Building & Related - Lower Roxborough Filters	5,621	55,033	60,654						
14	Radios	0	7,298,174	7,298,174						
15	Meters	0	27,777,986	27,777,986						
17	Building & Related - Torresdale RWPS	442,027	4,124,863	4,566,890						
18	Building & Related - Torresdale FWPS	718,961	10,421,122	11,140,083						
19	Building & Related - Torresdale HS FWPS	10,364	4,328,442	4,338,807						
20	Building & Related - Baxter Filters	8,082,919	174,025,821	182,108,739						
22	Building & Related - Foxchase FWPS	580,288	5,290,459	5,870,747						
23	Building & Related - Oak Lane FWPS	10,667	319,789	330,456						
24	Building & Related - Oak Lane Reservoir	825,933	7,440,874	8,266,807						
25	Building & Related - Lardner's Point FWPS	335,959	3,231,799	3,567,758						
26	Building & Related - East Park FWPS	428,363	1,375,536	1,803,899						
27	Building & Related - East Park Reservoir	1,429,545	14,596,640	16,026,185						
28	Building & Related - Race Street HP PS	0	0	0						
29	Building & Related - Fairhill HP PS	0	7,299	7,299						
30	Building & Related - West Oak Lane FWPS	167,882	508,980	676,862						
31	Building & Related - Load Control Center	289,777	4,242,921	4,532,698						
32	Building & Related - Distribution	608,657	23,560,582	24,169,240						
33	Building & Related - Automotive Garage	1,396,191	3,784,057	5,180,248						
34	Building & Related - ARA Towers	0	3,457,915	3,457,915						
35	Building & Related - Design Related	0	701,399	701,399						
37		0	3,151,237	3,151,237						
38		0	1,613,654	1,613,654						
39	Building & Related - Fairmount Water Works	290,552	6,161,883	6,452,435						
40	Building & Related - Meter Shop	242,313	2,093,939	2,336,252						
41		0	760,309	760,309						
42	Building & Related - Auto Repair Facility (Fox & Robts. Sts.)	360,603	630,480	991,083						
43	Building & Related - Centralized Laboratory	1,536,143	19,531,930	21,068,073						
44	Building & Related - Repair Shop	1,137	561,879	563,016						
45	Building & Related - Building Maintenance	344,135	5,626,823	5,970,958						
47	Building & Related - Central Stores	43,097	466,773	509,870						
48		0	0	0						
49	Building & Related - IBM Unit 29th & Cambria	93,298	435,740	529,038						
51	Building & Related - Sewer Maintenance	1,971,693	28,376,356	30,348,049						
54	Building & Related - NE Treatment	26,890,003	395,278,908	422,168,911						
55	Building & Related - SW Treatment	17,937,791	309,059,599	326,997,391						
56	Building & Related - SE Treatment	14,728,426	187,176,131	201,904,557						
57	Building & Related - Sewer Maintenance Headquarters Bldg.	547,824	3,369,102	3,916,926						
58	Building & Related - Frankford Grit	0	0	0						
59		0	104,543	104,543						
60	Building & Related - Bank Street PS	8,476	41,808	50,284						
61	Building & Related - Central Schuylkill PS	1,018,264	9,797,571	10,815,835						
62	Building & Related - Neill Drive PS	82,033	1,538,928	1,620,961						
63	Building & Related - Mingo Creek PS	312,890	8,612,504	8,925,394						
65	Building & Related - Milnor Street PS	24,141	261,029	285,170						
66	Building & Related - Ford Road PS	26,349	235,906	262,255						
67	Building & Related - 42nd Street PS	158,832	1,993,460	2,152,292						
68	Building & Related - Sludge Management	5,101,608	49,171,255	54,272,863						
71	Building & Related - Broad & Boulevard PS	412	108,133	108,545						
72	Building & Related - Passyunk & Vare PS	0	104,016	104,016						
73	Building & Related - Industrial Waste	0	783,890	783,890						
75	Building & Related - Remnard Street PS	85,282	354,044	439,326						
76	Building & Related - Lockhart Street PS	61,527	110,982	172,509						
77	Building & Related - Linden Avenue PS	55,627	242,500	298,127						
80	Building & Related - Somerton Tanks	379,808	4,094,323	4,474,130						

81		0	1,112,656	1,112,656
85	Building & Related - Chappel Hill PS	0	0	0
86	Building & Related - Chappel Hill & Belfry Dr. PS	94,687	304,077	398,764
91	Building & Related - Lardner's Point Sewer System	365,623	1,798,953	2,164,576
92		0	7,794,990	7,794,990
94		0	717,588	717,588
95		0	2,746,471	2,746,471
	LTCP Infrastructure	<u>1,751,165</u>	<u>46,461,893</u>	<u>48,213,058</u>
	Total	310,967,100	3,779,899,827	4,090,866,927

(a) Location ID 0 (zero) includes the following:

Building & Related - Undetermined Location	92,459,689
Water Mains	791,614,494
Sewer Mains	1,460,987,454
Total -	2,345,061,637
Check -	2,345,061,637

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
XXXXX - PAGE NOT IN USE	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Plant-11

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SFAL - Summary of Fixed Asset Listing Control Totals as of 6/30/2016	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Plant-12

Reference: PWD 2017 Assets.xls

Depot	Location Description	FY 2016 Fixed Asset Listing			Categories of Common A&G Plant	Sewer Plant Including Sewer's Share of Common Plant Above and Land Not Included on This Page
		Sum Of Construction Cost \$	Sum Of Engineering Cost \$	Total \$		
1,000	Water Mains	712,152,176	79,462,317	791,614,494		Total Sewer Plant This Page 2,530,395,295
2,000	Sewer Mains	1,349,109,421	111,878,033	1,460,987,454		Plus NE WPAP Including "Soft Costs" (a) Plant-9 318,818,830
0	Building & Related - Undetermined Location	85,583,401	6,876,288	92,459,689		Less NE WPAP Excluding "Soft Costs" (a) Plant-9 (270,358,370)
1	Building & Related - Belmont RWPS	3,793,891	315,148	4,109,039		Plus SW WPAP Including "Soft Costs" (a) Plant-9 217,453,559
2	Building & Related - Belmont FWPS	12,397,608	1,229,293	13,626,901		Less SW WPAP Excluding "Soft Costs" (a) Plant-9 (175,919,928)
3	Building & Related - Belmont Filters	81,549,349	9,633,147	91,182,496		Plus SE WPAP Including "Soft Costs" (a) Plant-9 167,032,916
4		333,687	0	333,687		Less SE WPAP Excluding "Soft Costs" (a) Plant-9 (137,134,023)
5	Building & Related - HS to Roxborough Expressway	398,929	0	398,929		Plus Sludge Management Including "Soft Costs" (c) Sptallo-3 34,770,375
6	Building & Related - Queen Lane RWPS	9,365,183	1,024,862	10,390,045		Less Sludge Management Including "Soft Costs" (c) This Page (54,272,863)
7	Building & Related - Queen Lane HS FWPS	21,733,294	2,359,498	24,092,792		Sewer Plant Including "Soft Costs" (a) 2,630,785,791
8	Building & Related - Queen Lane Filters	96,820,628	7,830,855	104,651,484		Land Not Included Here But Included in Sptallo-5
11	Building & Related - Roxborough HS FWPS	2,963,178	300,225	3,263,404		NE WPCP Sptallo-2 913,000
12	Building & Related - Upper Roxborough Filters	4,363,124	210,540	4,573,664		SW WPCP Sptallo-3 664,000
13	Building & Related - Lower Roxborough Filters	55,033	5,621	60,654		SE WPCP Sptallo-4 151,000
14	Radios	7,298,174	0	7,298,174		Sewer Share of Water & Sewer A&G 64,923,011
15	Meters	27,777,986	0	27,777,986		General Plant Land To Be Included with Mains (Sptallo-5) Sptallo-5 1,816,000
17	Building & Related - Torresdale RWPS	4,124,863	442,027	4,566,890		Subtotal Sewer Plant 2,699,252,802
18	Building & Related - Torresdale FWPS	10,421,122	718,961	11,140,083		Less Facilities Excluded as Not Used and Useful (See Footnotes (a) & (b) on Sptallo-2.) (7,510,000)
19	Building & Related - Torresdale HS FWPS	4,328,442	10,364	4,338,807		Total Sewer Plant 2,691,742,802
20	Building & Related - Baxter Filters	174,025,821	8,082,919	182,108,739		Total Sewer Plant (Rounded) 2,691,743,000
22	Building & Related - Foxchase FWPS	5,290,459	580,288	5,870,747		Total Sewer Plant from Sptallo-5 Sptallo-5 2,734,431,000
23	Building & Related - Oak Lane FWPS	319,789	10,667	330,456		Difference 42,688,000
24	Building & Related - Oak Lane Reservoir	7,440,874	825,933	8,266,807		(a) See footnote (a) on Plant-9 for an explanation of "soft costs."
25	Building & Related - Lardner's Point FWPS	3,231,799	335,959	3,567,758		
26	Building & Related - East Park FWPS	1,375,536	428,363	1,803,899		
27	Building & Related - East Park Reservoir	14,596,640	1,429,545	16,026,185		
28	Building & Related - Race Street HP PS	0	0	0		
29	Building & Related - Fairhill HP PS	7,299	0	7,299		
30	Building & Related - West Oak Lane FWPS	508,980	167,882	676,862		
31	Building & Related - Load Control Center	4,242,921	289,777	4,532,698		
32	Building & Related - Distribution	23,560,582	608,657	24,169,240		
33	Building & Related - Automotive Garage	3,784,057	1,396,191	5,180,248		
34	Building & Related - ARA Towers	3,457,915	0	3,457,915		
35	Building & Related - Design Related	701,399	0	701,399		
37	PC Equipment & Vehicles	3,151,237	0	3,151,237		
38	PC Equipment & Vehicles	1,613,654	0	1,613,654		
39	Building & Related - Fairmount Water Works	6,161,883	290,552	6,452,435		
40	Building & Related - Meter Shop	2,093,939	242,313	2,336,252		
41	Vehicles	760,309	0	760,309		
42	Building & Related - Auto Repair Facility (Fox & Robts. Sts.)	630,480	360,603	991,083		
43	Building & Related - Centralized Laboratory	19,531,930	1,536,143	21,068,073		
44	Building & Related - Repair Shop	561,879	1,137	563,016		
45	Building & Related - Building Maintenance	5,626,823	344,135	5,970,958		
47	Building & Related - Central Stores	466,773	43,097	509,870		
48		0	0	0		
49	Building & Related - IBM Unit 29th & Cambria	435,740	93,298	529,038		
51	Building & Related - Sewer Maintenance	28,376,356	1,971,693	30,348,049		
54	Building & Related - NE Treatment	395,278,908	26,890,003	422,168,911		
55	Building & Related - SW Treatment	309,059,599	17,937,791	326,997,391		
56	Building & Related - SE Treatment	187,176,131	14,728,426	201,904,557		
57	Building & Related - Sewer Maintenance Headquarters Bldg.	3,369,102	547,824	3,916,926		
58	Building & Related - Frankford Grit	0	0	0		
59		104,543	0	104,543		
60	Building & Related - Bank Street PS	41,808	8,476	50,284		
61	Building & Related - Central Schuykill PS	9,797,571	1,018,264	10,815,835		
62	Building & Related - Neill Drive PS	1,538,928	82,033	1,620,961		
63	Building & Related - Mingo Creek PS	8,612,504	312,890	8,925,394		
65	Building & Related - Milnor Street PS	261,029	24,141	285,170		
66	Building & Related - Ford Road PS	235,906	26,349	262,255		
67	Building & Related - 42nd Street PS	1,993,460	158,832	2,152,292		
68	Building & Related - Sludge Management	49,171,255	5,101,608	54,272,863	(26,143,630)	
71	Building & Related - Broad & Boulevard PS	108,133	412	108,545		
72	Building & Related - Passyunk & Vare PS	104,016	0	104,016		
73	Building & Related - Industrial Waste	783,890	0	783,890		

75	Building & Related - Rennard Street PS	354,044	85,282	439,326
76	Building & Related - Lockhart Street PS	110,982	61,527	172,509
77	Building & Related - Linden Avenue PS	242,500	55,627	298,127
80	Building & Related - Somerton Tanks	4,094,323	379,808	4,474,130
81	Vehicles	1,112,656	0	1,112,656
85	Building & Related - Chappel Hill PS	0	0	0
86	Building & Related - Chappel Hill & Belfry Dr. PS	304,077	94,687	398,764
91	Building & Related - Lardner's Point Sewer System	1,798,953	365,623	2,164,576
92	Vehicles	7,794,990	0	7,794,990
94	Vehicles	717,588	0	717,588
95	Vehicles	2,746,471	0	2,746,471
	LTCP Infrastructure	<u>46,461,893</u>	<u>1,751,165</u>	<u>48,213,058</u>
	Total	3,779,899,827	310,967,100	4,090,866,927

Water and Common A&G Total

1,460,064,477

Comparable total from WCOS:

1,460,064,477

Difference = 0

SCOS17_19.XLS
SPLTALLO

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SPLTIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					SplTallo-1

Fixed Asset Listing as of date 6/30/2016

The "SplTallo" worksheet allocates sewer treatment plant investment and annual depreciation to cost functions. It also allocates wastewater system investment to individual contract customers.

Range	Description	Page Number	Table
SPLTIndex	Index		SplTallo-1
NEInvest	Northeast Water Pollution Control Treatment Plant Investment	SplTallo-2	
SWInvest	Southwest Water Pollution Control Treatment Plant Investment	SplTallo-3	
SEInvest	Southeast Water Pollution Control Treatment Plant Investment	SplTallo-4	
TotalInvest	Water Pollution Control Treatment Plant Investment	SplTallo-5	
NEALLO1	Allocation of Test Year Investment for the NE WPCP - Part 1	SplTallo-6	TABLE WW - 9A
NEALLO2	Allocation of Test Year Investment for the NE WPCP - Part 2	SplTallo-7	
NEALLO3	NE WPCP Alloc of Federal Grants For WPAP Projects	SplTallo-8	
SWALLO1	Allocation of Test Year Investment for the SW WPCP	SplTallo-9	TABLE WW - 9B
SWALLO2	SW WPCP Alloc of Federal Grants For WPAP Projects	SplTallo-10	
SEALLO1	Allocation of Test Year Investment for the SE WPCP	SplTallo-11	TABLE WW - 9C
SEALLO2	SE WPCP Alloc of Federal Grants For WPAP Projects	SplTallo-12	
SWReAllo1	SW WPAP Sludge Thickener Allocated To NE and SE Plants - Part 1	SplTallo-13	
SWReAllo2	Summary of SW WPAP Plant Allocated To NE and SE Plants - Part	SplTallo-14	
SWReAllo3	SW WPAP Sludge Digestion Allocated To NE and SE Plants - Part 3	SplTallo-15	
SWReAllo4	SW WPAP Sludge Gas Facilities Allocated To NE and SE Plants - Pt	SplTallo-16	
SWReAllo5	SW WPAP Sludge Disposal (Centrifuges) Allocated To NE and SE P	SplTallo-17	
SWReAllo6	SW WPAP Composting Facilities Allocated To NE and SE Plants - P	SplTallo-18	
SWReAllo7	SW WPAP Dewatering Facilities Allocated To NE and SE Plants - Pt	SplTallo-19	
SWReAllo8	SW Non-WPAP Sludge Disposal Facilities Allocated To NE and SE P	SplTallo-20	
SWReAllo9	SW Non-WPAP Digesters Allocated To NE and SE Plants - Part 9	SplTallo-21	
SWReAllo10	SW WPAP Prelim. Trtmt Bldg Allocated To NE and SE Plants - Part	SplTallo-22	
SWReAllo11	SW WPAP Grit & Ash Transfer Allocated To NE and SE Plants - Pa	SplTallo-23	
ALLOC	Allocation of TY Plant Investment	SplTallo-24	
INVSTCap1	WPCP Investment Per Unit Of Capacity	SplTallo-25	TABLE WH - 5
INVSTCap2	SW WPCP Treatment Plant Unit Costs	SplTallo-26	
INVSTCap3	Whsl Units of Service for Treatment Plants	SplTallo-27	
TWNPALLO1	Abington Allocated Investment	SplTallo-28	TABLE WH - 6
TWNPALLO2	Cheltenham Allocated Investment	SplTallo-29	TABLE WH - 9
TWNPALLO3	Lower Merion Allocated Investment	SplTallo-30	TABLE WH - 11
TWNPALLO4	Lower Moreland Allocated Investment	SplTallo-31	TABLE WH - 12
TWNPALLO5	Lower Southampton Allocated Investment	SplTallo-32	TABLE WH - 13
TWNPALLO6	Springfield (excl. Wyndmoor) Allocated Investment	SplTallo-33	TABLE WH - 14
CONVREV	Revisions to Conveyance Calculations	SplTallo-34	
TWNPALLO7	Springfield (Wyndmoor) Allocated Investment	SplTallo-35	TABLE WH - 15
TWNPALLO8	Bensalem Allocated Investment	SplTallo-36	TABLE WH - 7
TWNPALLO9	Bucks County Allocated Investment	SplTallo-37	TABLE WH - 8
TWNPALLO10	DELCORA Allocated Investment	SplTallo-38	TABLE WH - 10
TWNPALLO11	Upper Darby Allocated Investment	SplTallo-39	TABLE WH - 16
CONVALLO	Treatment Plant Conveyance Investment Alloc To Townships	SplTallo-40	
LANDALLO	Allocation Of Land Investment To Contract Customers	SplTallo-41	
NEPLTINV	Northeast Water Pollution Control Treatment Plant Investment	SplTallo-42	
TWNSHP	Township Contributed Investment	SplTallo-43	
TYDepr	Test Year Annual Depreciation Expense	SplTallo-44	
TYInvest	Test Year Depreciable Plant Investment	SplTallo-45	
RTLInvest	Depreciable Plant Invest Alloc To Retail Service	SplTallo-46	

**NORTHEAST WATER POLLUTION CONTROL
 TREATMENT PLANT INVESTMENT**

Test Year 2019

Line No.	Description	(1) Preliminary 6/30/2016 Plant in Service \$1,000 Plant-9 Plant-12	(2) Allocated Cap. Int. and Cap. Pension & Ben. \$1,000	(3) Final 6/30/2016 Plant in Service \$1,000 (1)+(2)	(4) Test Year CWIP Plus Wt. Add'ns to Plant in Service \$1,000 BOX 2	(5) Subtotal Columns (3)+(4) \$1,000	(6) Allocate Test Year Common A&G \$1,000 Spltallo-5	(7) FY 2019 Test Year Plant in Service \$1,000
WPCP (Non-Abatement)								
1	Frankford Grit Chamber	0	0	0	0	0	0	0
2	Plant Grit Chamber(a)	0	0	0	0	0	0	0
3	Pumping Station(a)	1,216	0	1,216	0	1,216	70	1,286
4	Settling and Aeration Tanks	44,909	0	44,909	0	44,909	2,603	47,512
5	Blower Bldg, Supernatant Tank Prim Sludge Hse & Scum Ejector Bldg	2,699	0	2,699	0	2,699	156	2,855
6	Sludge Digestion System	10,780	0	10,780	0	10,780	625	11,405
7	Lagoons	0	0	0	0	0	0	0
8	Sludge Dewatering	3,872	0	3,872	0	3,872	224	4,096
9	Centrifuge System (WO-79-2831)	0	0	0	0	0	0	0
10	Effluent Conduit	0	0	0	0	0	0	0
11	Chlorination Facilities	4,788	0	4,788	0	4,788	278	5,066
12	Aeration Tank No. 1	3,458	0	3,458	0	3,458	200	3,658
13	Sludge Thickener Building	4,586	0	4,586	0	4,586	266	4,852
14	Sludge Transfer Station	337	0	337	0	337	20	357
15	Subtotal	76,645	0	76,645	0	76,645	4,442	81,087
Admin. & Gen. Facilities								
16	Admin. & Serv. Bldg.	11,067	0	11,067	0	11,067	642	11,709
17	Locker Bldg	0	0	0	0	0	0	0
18	Heating Plant	3,451	0	3,451	0	3,451	200	3,651
19	Electrical Substation	3,909	0	3,909	0	3,909	227	4,136
Land & Site Preparation								
20	Land	Ref.B 913	0	913	0	913	53	966
21	Site(b)	15,242	0	15,242	0	15,242	884	16,126
22	Total Land & Site	16,155	0	16,155	0	16,155	937	17,092
23	Meter Vaults & Connecting Sewers	266	0	266	0	266	15	281
24	Engineering & Design	23,174	0	23,174	0	23,174	1,344	24,518
25	Subtotal A & G	58,022	0	58,022	0	58,022	3,365	61,387
26	Total WPCP (Non-WPAP)	134,667	0	134,667	0	134,667	7,807	142,474

BOX 1 - CHECK OF COL 1 vs. TOTAL FROM "PLANT"

Line 49 Less Line 20 (Land not included in PLANT)	452,572
Plus Total from Footnote (a)	7,510
Plus Total from Footnote (b)	0
Subtotal	460,082
Check from PLANT	466,950,729 /1,000 = 466,951
Plus items included under "Collection - Building & Related" from SPLANT91.WK4, LINK_NE36 (FHL Interceptor and "Other Collection"), included under Collection System on Spltallo-5.	
	3,678,643 /1,000 = 3,679
Less Frankford Grit Chamber from Plant-12	0 /1,000 = 0
Total	463,761
Check from Plant Worksheet: Plant-9	470,629,372 /1,000 = 470,629

BOX 2 - CWIP

Weighted Test Year Additions Plus CI and CFB (Abatement):	
Projected Plant Additions	0
Weighted Test Year Additions Plus CI and CFB (Non-Abatement):	
Projected Plant Additions	0
Total	0

WPAP							
27	Engr. Serv. Design, Testing	0	0	0	0	0	0
28	Electrical Building	1,108	0	1,108	0	1,108	64 x
29	Aeration Tank #1	37,286	0	37,286	0	37,286	2,162 x
30	Site	19,217	0	19,217	0	19,217	1,114 x
31	Sludge Digestion	33,274	0	33,274	0	33,274	1,929 x
32	Sludge Residue Fusion Plant(a)	0	0	0	0	0	0
33	New Preliminary Trtmt Bldg	39,635	0	39,635	0	39,635	2,298 x
34	Chlorination	0	0	0	0	0	0 x
35	Primary Sedimentation Tanks	50,996	0	50,996	0	50,996	2,957 x
36	New Scum Disposal Facilities	0	0	0	0	0	0
37	New Sludge Thickener Building	39,854	0	39,854	0	39,854	2,311 x
38	New Final Sedimentation Tanks	24,709	0	24,709	0	24,709	1,433 x
39	Blower Building	15,992	0	15,992	0	15,992	927 x
40	Meter Vaults & Connecting Sewers	9,149	0	9,149	0	9,149	530 x
41	New Aeration Tanks	0	0	0	0	0	0
42	New Centrifuge Building	0	0	0	0	0	0
43	Effluent Conduit	2,214	0	2,214	0	2,214	128 x
44	Sludge Transfer Station	23,630	0	23,630	0	23,630	1,370 x
45	Sludge Cake Staging Pad	0	0	0	0	0	0
46	Loading Terminal/Barges	5,289	0	5,289	0	5,289	307 x
47	Administration Bldg. (c)	16,465	0	16,465	0	16,465	954 x
48	Total WPAP	318,818	0	318,818	0	318,818	18,484 x
49	TOTAL PLANT	453,485	0	453,485	0	453,485	26,291 x

(a) Facilities excluded as not used or useful include:

	\$
Plant Grit Chamber - 6/30/2016	7,510
Plant Grit Chamber - 6/30/89	0
Plant Grit Chamber	7,510
Pumping Station	
Sludge Residue Fusion Plant	
	7,510

(b) Truck Maintenance Garage excluded as not used or useful:

\$

(c) \$9,514,300.0 of the WPAP facilities received only about 3% federal grants, per Joe Clare 10/7/99 email to JRM (filed with PN 31416.0100 Miscellaneous Correspondence).

References:

SOUTHWEST WATER POLLUTION CONTROL TREATMENT PLANT INVESTMENT

Test Year 2019

Line No.	Description	(1) Preliminary 6/30/2016 Plant in Service \$1,000 Plant-9 BOX 4	(2) Allocated Cap. Int. and Cap. Pension & Ben. \$1,000	(3) Final 6/30/2016 Plant in Service \$1,000 (1)+(2)	(4) Test Yr CWIP Plus Wt. Add'ns to Plant in Service \$1,000 BOX 2	(5) Subtotal Columns \$1,000 (3)+(4)	(6) Allocate Test Year Common A&G \$1,000 Sptallo-5	(7) FY 2019 Test Year Plant in Service \$1,000	Test Yr CWIP Plus Wt. Add'ns to Plant in Service CI & FB Less \$1,000 BOX 2
WPCP (Non-Abatement)									
1	Screen, Blower, Primary Sludge Pump Sta. & Grit Chambers	7,812	0	7,812	0	7,812	453	8,265	0
2	Grease Burner	1,881	0	1,881	0	1,881	109	1,990	0
3	Sedimentation Tanks	27,076	0	27,076	0	27,076	1,570	28,646	0
4	Sludge Handling & Machine Shop	7,599	0	7,599	0	7,599	441	8,040	0
5	Sludge Digestion	7,218	0	7,218	0	7,218	418	7,636	0
6	Sludge Disposal	0	0	0	0	0	0	0	0
7	Belt Filter System	0	0	0	0	0	0	0	0
8	Centrifuge System	0	0	0	0	0	0	0	0
9	Outfall Line (SD-152-SW)	0	0	0	0	0	0	0	0
10	Chlorination Facilities	1,176	0	1,176	0	1,176	68	1,244	0
11	Dewatering Facilities	0	0	0	0	0	0	0	0
12	Aeration Tanks	677	0	677	0	677	39	716	0
13	Oxygen Supply	3,077	0	3,077	0	3,077	178	3,255	0
14	Effluent Pump Station	196	0	196	0	196	11	207	0
15	Sludge Thickener Building	1,852	0	1,852	0	1,852	107	1,959	0
16	Composting Facilities	989	0	989	0	989	57	1,046	0
17	Sludge Gas Facilities	8,643	0	8,643	0	8,643	501	9,144	0
18	Subtotal	68,196	0	68,196	0	68,196	3,952	72,148	0
Admin. & Gen. Facilities									
19	Office & Gen. Facilities	0	0	0	0	0	0	0	0
20	Electrical Substation	691	0	691	0	691	40	731	0
21	Elevated Water Tank	96	0	96	0	96	6	102	0
22	General Improvements Land & Site Preparation	43,915	0	43,915	0	43,915	2,546	46,461	0
23	Land	664	0	664	0	664	38	702	0
24	Site	37,000	0	37,000	0	37,000	2,145	39,145	0
25	Total Land & Site	37,664	0	37,664	0	37,664	2,183	39,847	0
26	Shop & Maintenance Building	218	0	218	0	218	14	232	0
27	Warehouse	961	0	961	0	961	56	1,017	0
28	Subtotal A & G	83,545	0	83,545	0	83,545	4,845	88,390	0
29	Total WPCP (Non-WPAP)	151,741	0	151,741	0	151,741	8,797	160,538	0
WPAP									
30	Influent Pumping Station	6,114	0	6,114	0	6,114	354	6,468	0
31	Preliminary Treatment Bldg	27,463	0	27,463	0	27,463	1,592	29,055	0
32	Primary Sedimentation Tanks	10,769	0	10,769	0	10,769	624	11,393	0
33	Aeration Tanks	15,861	0	15,861	0	15,861	919	16,780	0
34	Oxygen Supply	13,641	0	13,641	0	13,641	791	14,432	0
35	Compressor Bldg	3,610	0	3,610	0	3,610	209	3,819	0
36	Final Tanks	28,353	0	28,353	0	28,353	1,646	29,999	0
37	Elevated Water Tank	373	0	373	0	373	22	395	0
38	Scum Concentration Bldg	1,328	0	1,328	0	1,328	77	1,405	0
39	Sludge Thickener Bldg	16,652	0	16,652	0	16,652	965	17,617	0
40	Sludge Digestion Facilities	44,637	0	44,637	0	44,637	2,588	47,225	0
41	Composting Facility	0	0	0	0	0	0	0	0
42	Effluent Pumping Station	5,735	0	5,735	0	5,735	332	6,067	0

BOX 1 - CHECK OF COL 1 vs. TOTAL FROM "PLANT"

Line 56 Less Line 23 (Land not including in PLANT)	403,301
Less Depot 68 included in line 56 (from BOX 4)	(34,770)
Subtotal	368,531
Less Mag. Flow Meter	0
Total	368,531
Check from Plant Worksheet: Plant-9	368,531,022 /1,000 = 368,531

BOX 2 - CWIP

Weighted Test Year Additions Plus CI and CFB: Projected Plant Additions	0
Check	0
Weighted Test Year Additions Plus CI and CFB (Non-Abatement): Projected Plant Additions	0
Check	0
GRAND TOTAL.....	0
Total	0

BOX 4 - COMPOSTING FACILITIES, SLUDGE DEWATERING, NEW CENTRIFUGES

	Fixed Asset Listing Times Plant-9	Per Fixed Asset Listing 1/0.809
Investment related to composting operations includes:		
Investment at Depot 68	0	0
Subtotal	0	0
Investment related to sludge dewatering includes:		
Investment at Depot 68	18,742,012	23,166,888
Subtotal	18,742,012	23,166,888
Investment related to new centrifuges includes:		
Investment at Depot 68	9,387,221	11,603,487
Subtotal	9,387,221	11,603,487
Total Depot 68 Increased to Include "Soft Costs"	28,129,233	34,770,375

(a) This factor is 1 divided by the ratio of Construction Costs to Total Costs from the PWD Reimbursement Status Report supplied by Joe Clare on 10/7/99 (BD-28a). The difference between Construction Cost and Total Cost is "soft cost" representing engineering, design, and administrative costs not included in the fixed asset listing.

43	Outfall Conduit	0	0	0	0	0	0	0
44	Sludge Gas Facilities	10,399	0	10,399	0	10,399	603	11,002
45	Computer System		0	0	0	0	0	0
46	Admin. Bldg & General Improvements	2,902	0	2,902	0	2,902	168	3,070
47	Shop & Maintenance Bldg	3,276	0	3,276	0	3,276	190	3,466
48	Warehouse	1,922	0	1,922	0	1,922	111	2,033
49	Electrical Bldg	1,923	0	1,923	0	1,923	111	2,034
50	Site	22,496	0	22,496	0	22,496	1,304	23,800
51	New Centrifuges	11,603	0	11,603	0	11,603	673	12,276
52	Eng. Serv., Design, Testing		0	0	0	0	0	0
53	Dewatering Facilities	23,167	0	23,167	0	23,167	1,343	24,510
54	Grit & Ash Transfer Station		0	0	0	0	0	0
55	Total WPAP	252,224	0	252,224	0	252,224	14,622	266,846
56	TOTAL PLANT TEST VALUE	403,965	0	403,965	0	403,965	23,419	427,384

BOX 3 - USED IN Sptialo-13			
A&G Facilities	\$ [Col. (7)]		
Sludge Thickener Bldg	17,617		
Total WPAP	266,846		
A&G:			
Computer System	0		
Administration Bldg	3,070		
Shop & Maint. Bldg	3,466		
Warehouse	2,033		
Electrical Bldg	2,034		
Site	23,800	TOTAL WPAP LESS A&G	232,443
Eng Serv., etc.	0	SLUDGE THICKENER BLDG	
		AS A % OF TOTAL WPAP	
Subtotal A&G	34,403	LESS A&G	7.5791%
==> A&G RELATED TO SLUDGE THICKENER BLDG:			
	7.58%	x	34,403 = 2,607

References:

**SOUTHEAST WATER POLLUTION CONTROL
TREATMENT PLANT INVESTMENT**

Test Year 2019

Line No.	Description	(1) Preliminary 6/30/2016 Plant in Service \$1,000 <u>Plant-9</u>	(2) Allocated Cap. Int. and Cap. Pension & Ben. \$1,000	(3) Final 6/30/2016 Plant in Service \$1,000 (1)+(2)	(4) Test Yr CWIP Plus Wt. Add'ns to Plant in Service \$1,000	(5) Subtotal Columns \$1,000 (3)+(4)	(6) Allocate Test Year Common A&G \$1,000 <u>Splallo-5</u>	(7) FY 2019 Test Year Plant in Service \$1,000
WPCP (Non-Abatement)								
1	Main Pumping Station	2,028	0	2,028	0	2,028	118	2,146
2	Screen, Admin., Garage, Machine Shop, Grit Chmbrs & Collecting Channel	12,139	0	12,139	0	12,139	704	12,843
3	Settling tanks & Flocc. Channel	15,174	0	15,174	0	15,174	880	16,054
4	Grease Building	0	0	0	0	0	0	0
5	Blower & Prim. Sludge Pump. Sta.	0	0	0	0	0	0	0
6	Sludge Force Main	4,852	0	4,852	0	4,852	281	5,133
7	Main Effluent Conduit	551	0	551	0	551	32	583
8	Compressor Building	0	0	0	0	0	0	0
9	Subtotal	34,744	0	34,744	0	34,744	2,015	36,759
Admin. & Gen. Facilities								
10	Electrical Substation			0	0	0	0	0
11	Storage Building	945	0	945	0	945	55	1,000
Land & Site Preparation								
12	Land	151	0	151	0	151	9	160
13	Site	25,886	0	25,886	0	25,886	1,501	27,387
14	Total Land & Site	26,037	0	26,037	0	26,037	1,510	27,547
15	Other	0	0	0	0	0	(2)	(2)
16	Subtotal A & G	26,982	0	26,982	0	26,982	1,563	28,545
17	Total WPCP (Non WPAP)	61,726	0	61,726	0	61,726	3,578	65,304
WPAP								
18	Scum Concentration Facilities	2,727	0	2,727	0	2,727	158	2,885
19	Influent Pump Station and Screen & Grit Chamber	24,149	0	24,149	0	24,149	1,400	25,549
20	Effluent Conduit	11,227	0	11,227	0	11,227	651	11,878
21	Compressor Bldg	9,604	0	9,604	0	9,604	557	10,161
22	Effluent Pump Station	12,487	0	12,487	0	12,487	724	13,211
23	Sludge Handling Facilities	0	0	0	0	0	0	0
24	Sludge Force Main	1,882	0	1,882	0	1,882	109	1,991
25	Primary Sedimentation	20,467	0	20,467	0	20,467	1,187	21,654
26	Aeration	22,431	0	22,431	0	22,431	1,300	23,731
27	Final Sedimentation	25,234	0	25,234	0	25,234	1,463	26,697
28	Site	40,742	0	40,742	0	40,742	2,362	43,104
29	Computer Systems	0	0	0	0	0	0	0
30	Switchgear	0	0	0	0	0	0	0
31	Storage Building	1,160	0	1,160	0	1,160	67	1,227
32	Admin. Complex	0	0	0	0	0	0	0
33	Yard	0	0	0	0	0	0	0
34	Grease Bldg	0	0	0	0	0	0	0
35	Eng. Serv., Design, Testing	0	0	0	0	0	0	0
36	Total WPAP	172,110	0	172,110	0	172,110	9,978	182,088
37	TOTAL PLANT	233,836	0	233,836	0	233,836	13,556	247,392
TOTAL CAP INTEREST ALLOCATED TO NE, SW, SE								
		0	0	0	0	0	0	0

BOX 1 - CHECK OF COL 1 vs. TOTAL FROM Units WORKSHEET	
Line 37 Less Line 12 (Land not including gas in Units worksheet)	233,685
Plus Collection Related	
Subtotal	233,685
Less Mains included (a)	1,882,052 /1,000 = (1,882)
Total	231,803
Check from Plant Worksheet: Plant-9	231,803,450 /1,000 = 231,803
(a) Work Order SD-435-SE is listed under sewer Mains in Fixed Asset listing. This project has been included under the SE Plant data here, and removed from the total value of sewer mains on page SPLTALLO5 of this file.	

BOX 2 - CWIP	
Weighted Test Year Additions Plus CI and CFB:	
Projected CWIP - WPAP	0
Projected CWIP - NON - WPAP	0
Check	0

References: A Sptallo-2, Sptallo-3, and Sptallo-4

FY 2019 TEST YEAR PLANT IN SERVICE

Line No.	Description	(1) Total PIS @ 6/30/2016 \$1,000 Ref. A BOX 1 & 4	(2) Test Yr CWIP Plus Wt. Add'ns to Plant in Service \$1,000 BOX 3	(3) FY 2019 Test Year Plant in Service \$1,000 (1) + (2)	(4) Allocated Commn A&G Allocate On Col. 3 Excluding Mains \$1,000 BOX 4 & Plant-12	(5) FY 2019 Test Year Plant in Service Including Gen. Plant \$1,000 (3) + (4)
1	Collection System - Mains (a)	1,489,453	0	1,489,453	1,816	1,491,269
2	- FHL Interceptor	3,679		3,679		3,679
3	Pumping	28,582		28,582	1,657	30,239
4	LTCP Investment	48,213	6,479	54,692		54,692
Treatment						
Non - WPAP						
5	Northeast (NE)	134,667	0	134,667	7,807	142,474
6	Southeast (SE)	61,726	0	61,726	3,578	65,304
7	Southwest (SW)	151,741	0	151,741	8,797	160,538
8	Frankford Grit Chamber	0		0	0	0
9	Total Non - WPAP	348,134	0	348,134	20,182	368,316
WPAP						
10	Northeast (NE)	318,818	0	318,818	18,484	337,302
11	Southeast (SE)	172,110	0	172,110	9,978	182,088
12	Southwest (SW)	252,224	0	252,224	14,622	266,846
13	Total WPAP	743,152	0	743,152	43,084	786,236
14	Total Treatment	1,091,286	0	1,091,286	63,266	1,154,552
15	Subtotal All Above	2,661,213	6,479	2,667,692	66,739	2,734,431
16	Common A&G Investment Plant-12 & below	66,739		66,739		
17	Total Plant	2,727,952	6,479	2,734,431	66,739	2,734,431

(a) Includes collection system building and related
 (b) Includes land

BOX 1 - COLLECTIONS		\$
Plant in Service at 6/30/2016		
Collections - Mains		
Sewer Maint. (Plant-10)	30,348,049	
Other Collection	0	
Mains, \$1,460,987,454, Less Mains Included with SE WPCP, \$1,882,052, see Sptallo-4	1,459,105,402	
Subtotal	1,489,453,451	
FHL Interceptor (Sptallo-2)	3,678,643	
Pumping	28,581,945	

Table_WW-9A

**ALLOCATION OF TEST YEAR INVESTMENT FOR THE NORTHEAST WATER POLLUTION CONTROL PLANT TO FUNCTIONAL COST COMPONENTS
Test Year 2019**

Line No.	Description	Col. (1) Reference	(1)	(2)	(3)	(4)	(5)	(6)	Basis of Allocation
			Total Investment \$1,000	Retail, Abington, Bensalem, Bucks Cty W&SA, Lower Moreland, and Lower Southampton Capacity \$1,000	Volume \$1,000	Capacity \$1,000	Suspended Solids \$1,000	BOD \$1,000	
NON-WATER POLLUTION ABATEMENT PROGRAM FACILITIES									
1	Preliminary Treatment Facilities	Spltallo-2, Ln 2	0				0		100% Capacity
2	Primary Sedimentation Basins	Spltallo-7	6,166		6,166				100% Volume
3	Pumping Station	Spltallo-2, Ln 3	1,286				1,286		100% Capacity
4	Aeration Facilities	Spltallo-7	20,376					20,376	100% BOD
5	Primary Sludge Pumps	Spltallo-7	1,367				1,367		100% SS
6	Scum Ejectors	Spltallo-7	214				214		100% SS
7	Effluent Conduit	Spltallo-2, Ln 10	0						100% Capacity
8	Final Sedimentation Basins	Spltallo-7	10,724		10,724				100% Volume
9	Recirculation Pumps	Spltallo-7	1,930		1,930				100% Volume
10	Digesters	Spltallo-7	20,995				15,746	5,249	75% SS - 25% BOD
11	Sludge Dewatering	Spltallo-2, Ln 8 & Spltallo-20, Ln 171	4,096				3,072	1,024	75% SS - 25% BOD
12	Centrifuge System	Spltallo-2, Ln 9	0				0	0	75% SS - 25% BOD
13	Sludge Lagoons	Spltallo-2, Ln 7	0				0	0	75% SS - 25% BOD
14	Frankford Grit Chamber	Spltallo-2, Ln 1	0						100% Capacity
15	Chlorination Facilities	Spltallo-2, Ln 11	5,066				5,066		100% Capacity
16	Aeration Tank No. 1	Spltallo-2, Ln 12	3,658					3,658	100% BOD
17	Sludge Thickener Building	Spltallo-2, Ln 13	4,852				2,426	2,426	50% SS - 50% BOD
18	Sludge Transfer Station	Spltallo-2, Ln 14	357				268	89	75% SS - 25% BOD
19	Subtotal All Above		81,087	0	18,820	6,352	23,093	32,822	
Administrative and General Facilities									
20	Administrative and General Plant	Spltallo-2, Ln 25 - Ln 20	60,421						
21	Land	Spltallo-2, Ln 20	966						
22	Subtotal		61,387	1,686	15,911	6,458	16,472	20,860	Allocated based on TOTAL NE WPCP INVESTMENT
23	Total Non-Water Pollution Abatement Program Facilities		142,474	1,686	34,731	12,810	39,565	53,682	

WATER POLLUTION ABATEMENT PROGRAM FACILITIES								
24	New Preliminary Treatment Building	Sptallo-2, Ln 33	41,933	10,483				100% Capacity
25	Primary Sedimentation Tanks Modifications	Sptallo-2, Ln 35	53,953		53,953	31,450		100% Volume
26	Blower Building	Sptallo-2, Ln 39	16,919				16,919	100% BOD
27	Aeration Tank No. 1	Sptallo-2, Ln 29	39,448				39,448	100% BOD
28	New Aeration Tanks	Sptallo-2, Ln 41	0				0	100% BOD
29	Chlorination Facilities	Sptallo-2, Ln 34	0		0			100% Capacity
30	New Scum Disposal Facilities	Sptallo-2, Ln 36	0			0		100% SS
31	New Sludge Thickener Building	Sptallo-2, Ln 37	42,165		21,083	21,082		50% SS - 50% BOD
32	Effluent Conduits	Sptallo-2, Ln 43	2,342		2,342			100% Capacity
33	New Final Sedimentation Tanks	Sptallo-2, Ln 38	26,142		26,142			100% Volume
34	Sludge Digestion System Modifications	Sptallo-2, Ln 31	35,203		26,402	8,801		75% SS - 25% BOD
35	Sludge Residue Fusion Plant	Sptallo-2, Ln 32	0		0	0		75% SS - 25% BOD
36	New Centrifuge Building	Sptallo-2, Ln 42	0		0	0		75% SS - 25% BOD
37	Composting Facilities	Sptallo-18, Ln 119	0		0	0		75% SS - 25% BOD
38	Sludge Dewatering	Sptallo-18, Ln 145	11,831		8,873	2,958		75% SS - 25% BOD
39	Frankford High Level Interceptor	(a)	0		0			100% Capacity
40	Sludge Transfer Station	Sptallo-2, Ln 44	25,000		18,750	6,250		75% SS - 25% BOD
41	Loading Terminal/Barges	Sptallo-2, Ln 46	5,596		4,197	1,399		75% SS - 25% BOD
42	Sludge Cake Staging Pad	Sptallo-2, Ln 45	0		0	0		75% SS - 25% BOD
43	Subtotal		300,532	10,483	80,095	33,792	79,305	96,857
44	Admin. and General Facilities	Sptallo-2, Ln 48 (Sptallo-6, Lns 24-36 + Lns 39-42)	48,601	1,335	12,597	5,113	13,041	16,515
45	Adjustment for Joint Use Facilities	Sptallo-18, Ln 123 & 149	1,751				1,313	438
46	Total Water Pollution Abatement Program facilities		350,884	11,818	92,692	38,905	93,659	113,810
47	TOTAL NORTHEAST WPC PLANT BOOK COST		493,358	13,504	127,423	51,715	133,224	167,492
48	Less Federal Grants	Sptallo-8	226,904	7,869	60,116	25,362	60,527	73,030
49	ADJUSTED TOTAL NORTHEAST WPC PLANT INVESTMENT		266,454	5,635	67,307	26,353	72,697	94,462
			100.0%	2.1%	25.3%	9.9%	27.3%	35.5%

(a) Included under Collection System on Sptallo-5.

Allocated based on TOTAL NE WPCP INVESTMENT

BOX 1 - CALCULATION OF LINES 2, 4 THRU 6, 8 THRU 10			
	EPA Cost Estimates \$1,000	Spread TY Plant on EPA Estimates	
	PN 12065.100, Co(?) 15.3		Volume
Primary Sedimentation Basins	1,150	6,166	6,166
Aeration Facilities			
Aeration Basins	2,500		
Blower Bldg. (Blowers)	1,300		
Subtotal	3,800	20,376	
Primary Sludge Pumps			
Primary Basins Sludge Pumps	190		
"B" Road Pump Station	65		
Subtotal	255	1,367	
Blower Bldg. (Scum Ejectors)	40		1,367
Final Sedimentation Basins	2,000	10,724	10,724
Recirculation Pumps			
Blower Bldg (Return Sludge Pmps)	260		214
"C" Road Pump Station	100		
Subtotal	360	1,930	
Digesters			
Sludge Digestion	3,900		
Blower Bldg (Supernatant Tanks)	15		
Subtotal	3,915	20,995	
TOTAL	11,520	61,772	
			18,820 30%
			0 0%
			15,746 28%
			5,249 41%
TOTAL			25,625
TEST YEAR PLANT	Splta10-2		
Settling and Aeration Tanks	47,512		
Blower Bldg, Supernatant Tank Prim			
Sludge Hse & Scum Ejector Bldg	2,855		
Sludge Digestion System	11,405		
TOTAL	61,772	0	

NORTHEAST WPC PLANT ALLOCATION OF ESTIMATED TEST YEAR FEDERAL GRANTS FOR WPAP PROJECTS

Line No.	Description	Col. (1) Reference	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Basis of Allocation		
			Average Test Year Net Book Cost (a) \$1,000	Total Federal Grants @ 70.3% Percent \$1,000	Retail, Abington, Bensalem, Bucks Cty W&SA, Lower Moreland, and Lower Southampton - Capacity \$1,000	Retail, Abington, Bensalem, Bucks Cty W&SA, Cheltenham, Lower Moreland, and Lower Southampton Volume \$1,000	Capacity \$1,000	Suspended Solids \$1,000	BOD \$1,000			
WATER POLLUTION ABATEMENT PROGRAM FACILITIES												
1	New Preliminary Treatment Building	Sptalloy-2, Ln 33	39,635	27,863	6,966		20,897			100% Capacity	27,863	0
2	Primary Sedimentation Tanks Modifications	Sptalloy-2, Ln 35	50,996	35,850		35,850				100% Volume	35,850	0
3	Blower Building	Sptalloy-2, Ln 39	15,992	11,242					11,242	100% BOD	11,242	0
4	Aeration Tank No. 1	Sptalloy-2, Ln 29	37,286	26,212					26,212	100% BOD	26,212	0
5	New Aeration Tanks	Sptalloy-2, Ln 41	0	0					0	100% BOD	0	0
6	Chlorination Facilities	Sptalloy-2, Ln 34	0	0				0		100% Capacity	0	0
7	New Scum Disposal Facilities	Sptalloy-2, Ln 36	0	0				0		100% SS	0	0
8	New Sludge Thickener Building	Sptalloy-2, Ln 37	39,854	28,017				14,009	14,008	50% SS - 50% BOD	28,017	0
9	Effluent Conduits	Sptalloy-2, Ln 43	2,214	1,556						100% Capacity	1,556	0
10	New Final Sedimentation Tanks	Sptalloy-2, Ln 38	24,709	17,370		17,370				100% Volume	17,370	0
11	Sludge Digestion System Modifications	Sptalloy-2, Ln 31	33,274	23,392				17,544	5,848	75% SS - 25% BOD	23,392	0
12	Sludge Residue Fusion Plant	Sptalloy-2, Ln 32	0	0				0	0	75% SS - 25% BOD	0	0
13	New Centrifuge Building	Sptalloy-2, Ln 42	0	0				0	0	75% SS - 25% BOD	0	0
14	Composting Facilities(b)	Sptalloy-18, Ln 107	0	0				0	0	75% SS - 25% BOD	0	0
15	Sludge Dewatering(b)	Sptalloy-19, Ln 133	11,183	7,996				5,997	1,999	75% SS - 25% BOD	7,996	0
16	Frankford High Level Interceptor	Sptalloy-6, Ln 39	0	0				0		100% Capacity	0	0
17	Sludge Transfer Station	Sptalloy-2, Ln 44	23,630	16,612				12,459	4,153	75% SS - 25% BOD	16,612	0
18	Loading Terminal/Barges	Sptalloy-2, Ln 46	5,289	3,718				2,789	929	75% SS - 25% BOD	3,718	0
19	Sludge Cake Staging Pad	Sptalloy-2, Ln 45	0	0				0	0	75% SS - 25% BOD	0	0
20	Subtotal		284,062	199,828	6,966	53,220	22,453	52,798	64,391		199,828	0
21	Admin. and Gen'l Facilities											
22	Receiving 3% Federal Grants (e)		9,514	285	10	76	32	75	92		285	0
23	All Other	(Sptalloy-2, Lns 27,28,30,40,47) - Ln22	36,425	25,607	893	6,820	2,877	6,766	8,251		25,643	(36)
24	Total Admin. and Gen'l Facilities		45,939	25,892	903	6,896	2,909	6,841	8,343		25,928	(36)
25	Adjust. for Joint Use Facili	Sptalloy-18, Ln 111 & Sptalloy-19 Ln 137	1,656	1,184				888	296		1,184	0
26	Total Water Poll. Abatement Prog. Facilities		331,657	226,904	7,869	60,116	25,362	60,527	73,030		226,940	(36)
				226,904	Check							

(a) Excludes allocated pension & benefits, capitalized interest, and general plant.
 (b) Includes allocated portion of SWWPCP facilities. 0 Include CWIP
 (c) Prior to adjustment for allocated portion of SWWPCP A&G.
 (d) Federal grant Reimbursement Status Report received 10/7/99 from Joe Clare (BD-28a). Also filed with Support calcs for this study.
 (e) \$9,514,300.0 of the WPAP facilities received only about 3% federal grants, per Joe Clare 10/7/99 email to JRM (BD-28). Also filed with Support calcs for this study.

Table_WW-9B

**ALLOCATION OF TEST YEAR INVESTMENT FOR THE SOUTHWEST WATER
POLLUTION CONTROL PLANT TO FUNCTIONAL COST COMPONENTS
Test Year 2019**

Line No.	Description	Col. (1) Reference	(1) Total Investment \$1,000	(2) Retail - Capacity \$1,000	(3) Volume \$1,000	(4) Capacity \$1,000	(5) Suspended Solids \$1,000	(6) BOD \$1,000	Basis of Allocation
NON-WATER POLLUTION ABATEMENT PROGRAM FACILITIES									
1	Raw Wastewater Pumping Station	Sptallo-3	Ln 1	8,265	8,265				100% Capacity
2	Sludge Digestion Facilities	Sptallo-21	Ln 195	5,149			3,757	1,392	75% SS - 25% BOD
3	Sludge Disposal Facilities	Sptallo-20	Ln 173	0			0	0	75% SS - 25% BOD
4	Scum Incineration	Sptallo-3	Ln 2	1,990			1,990		100% SS
5	Outfall Line	Sptallo-3	Ln 9	0		0			100% Capacity
6	Settling Tanks	Sptallo-3	Ln 3	28,646	28,646				100% Volume
7	Sludge Handling	Sptallo-3	Ln 4	8,040			6,030	2,010	75% SS - 25% BOD
8	Chlorination Facilities	Sptallo-3	Ln 10	1,244		1,244			100% Capacity
9	Dewatering Facilities	Sptallo-3	Ln 11	0			0	0	75% SS - 25% BOD
10	Aeration Tanks	Sptallo-3	Ln 12	716				716	100% BOD
11	Oxygen Supply	Sptallo-3	Ln 13	3,255				3,255	100% BOD
12	Effluent Pump Station	Sptallo-3	Ln 14	207		207			100% Capacity
13	Sludge Thickener Building	Sptallo-3	Ln 15	1,959			980	979	50% SS - 50% BOD (a)
14	Composting Facilities	Sptallo-3	Ln 16	1,046			785	261	75% SS - 25% BOD (a)
15	Sludge Gas Facilities	Sptallo-3	Ln 17	9,144			6,858	2,286	75% SS - 25% BOD (a)
16	Subtotal			69,661	8,265	28,646	1,451	20,400	10,899
Administrative and General Facilities									
17	Administrative and General Plant	Sptallo-3	Ln 28 - Ln 23	87,688					
18	Land	Sptallo-3	Ln 23	702					
19	Subtotal			88,390	5,132	24,395	11,267	24,143	23,453
20	Adjustment for Joint Use Facilities	Sptallo-20 , Ln 176 & Sptallo-21 Ln 198		(3,046)				(2,413)	(633)
21	Total Non-Water Pollution Abatement Program Facilities			155,005	13,397	53,041	12,718	42,130	33,719

WATER POLLUTION ABATEMENT PROGRAM FACILITIES									
22	Influent Pumping Station	Sptalloy-3	Ln 30	6,468	6,468				100% Capacity
23	Preliminary Treatment Building	Sptalloy-22	Ln 217	24,830		24,830			100% Capacity (a)
24	Primary Sedimentation Tanks	Sptalloy-3	Ln 32	11,393		11,393			100% Volume
25	Aeration Tanks	Sptalloy-3	Ln 33	16,780			16,780	100% BOD	SS/BOD 210
26	Oxygen Supply System	Sptalloy-3	Ln 34	14,432			14,432	100% BOD	SS/BOD 210
27	Compressor Building	Sptalloy-3	Ln 35	3,819			3,819	100% BOD	SS/BOD 210
28	Final Tanks	Sptalloy-3	Ln 36	29,999	29,999				100% Volume
29	Scum Concentration Building	Sptalloy-3	Ln 38	1,405			1,405		100% SS
30	Sludge Thickener Building	Sptalloy-13	Ln 17	12,847			6,424	6,423	50% SS - 50% BOD (a)
31	Sludge Digestion Facilities	Sptalloy-15	Ln 43	31,848			23,238	8,610	75% SS - 25% BOD (a)
32	Effluent Pumping Station	Sptalloy-3	Ln 42	6,067			6,067		100% Capacity
33	Outfall Conduit	Sptalloy-3	Ln 43	0			0		100% Capacity
34	New Centrifuges	Sptalloy-17	Ln 95	8,279			6,041	2,238	75% SS - 25% BOD (a)
35	Composting Facilities	Sptalloy-18	Ln 121	0			0	0	75% SS - 25% BOD (a)
36	Sludge Dewatering	Sptalloy-19	Ln 147	8,522			6,392	2,130	75% SS - 25% BOD (a)
37	Sludge Gas Facilities	Sptalloy-16	Ln 69	7,420			5,414	2,006	75% SS - 25% BOD (a)
38	Grit & Ash Transfer Station	Sptalloy-23	Ln 243	0			0		100% Capacity (a)
39	Subtotal			184,109	6,468	41,392	30,897	48,914	56,438
40	Admin. and Gen'l. Facilities	See note (b)		34,798	2,020	9,604	4,436	9,505	9,233
41	Adjust. for Joint Use Facilities	See note (c)		(7,095)			(625)	(4,819)	(1,651)
42	Total Water Pollution Abatement Program Facilities			211,812	8,488	50,996	34,708	53,600	64,020
43	TOTAL SOUTHWEST WPC PLANT BOOK COST			366,817	21,885	104,037	47,426	95,730	97,739
44	Less Federal Grants	Sptalloy-10		142,878	5,189	33,199	24,361	35,973	44,156
45	ADJUSTED TOTAL SOUTHWEST WPC PLANT INVESTMENT			223,939	16,696	70,838	23,065	59,757	53,583
				223,939	Check				
(a)	Reflects weighting due to joint use facilities.			100.00%					
(b)	Sptalloy-3, Lns 45,.50, 52				7.5%	31.6%	10.3%	26.7%	23.9%
(c)	Sptalloy-13, Lns 20,46,72,98,123,124,149,150 and Sptalloy-22 & Sptalloy-23, Lns 220 and 246								

Allocated based on TOTAL SW WPCP INVESTMENT

SOUTHWEST WPC PLANT ALLOCATION OF ESTIMATED TEST YEAR FEDERAL GRANTS FOR WPAP PROJECTS

Line No.	Description	Col. (1) Reference	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Basis of Allocation
			Average Test Year Net Book Cost (a) \$1,000	Total Federal Grants @ 71.5% Percent \$1,000	Retail - Capacity \$1,000	Volume \$1,000	Capacity	Suspended Solids	BOD	
Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), and Upper Darby										
WATER POLLUTION ABATEMENT PROGRAM FACILITIES										
1	Influent Pumping Station	Spttallo-3, Ln 30	6,114	4,372	4,372					100% Capacity
2	Preliminary Treatment Building (b)	Spttallo-22 Ln203	23,470	16,781			16,781			100% Capacity (d)
3	Primary Sedimentation Tanks	Spttallo-3, Ln 32	10,769	7,700		7,700				100% Volume
4	Aeration Tanks	Spttallo-3, Ln 33	15,861	11,341					11,341	100% BOD
5	Oxygen Supply System	Spttallo-3, Ln 34	13,641	9,753					9,753	100% BOD
6	Compressor Building	Spttallo-3, Ln 35	3,610	2,581					2,581	100% BOD
7	Final Tanks	Spttallo-3, Ln 36	28,353	20,272		20,272				100% Volume
8	Scum Concentration Building	Spttallo-3, Ln 38	1,328	950				950		100% SS
9	Sludge Thickener Building (b)	Spttallo-13, Ln 4	12,142	8,682				4,341	4,341	50% SS - 50% BOD (d)
10	Sludge Digestion Facilities (b)	Spttallo-15, Ln 30	30,103	21,523				15,704	5,819	75% SS - 25% BOD (d)
11	Effluent Pumping Station	Spttallo-3, Ln 42	5,735	4,101			4,101			100% Capacity
12	Outfall Conduit	Spttallo-3, Ln 43	0	0			0			100% Capacity
13	New Centrifuges (b)	Spttallo-17, Ln 82	7,825	5,595				4,082	1,513	75% SS - 25% BOD (d)
14	Composting Facilities (b)	Spttallo-18, Ln 108	0	0				0	0	75% SS - 25% BOD (d)
15	Sludge Dewatering (b)	Spttallo-19, Ln 134	8,055	5,759				4,319	1,440	75% SS - 25% BOD (d)
16	Sludge Gas Facilities (b)	Spttallo-16, Ln 56	7,013	5,014				3,658	1,356	75% SS - 25% BOD (d)
17	Grit and Ash Transfer Station (b)	Spttallo-23, Ln229	0	0			0			100% Capacity (d)
18	Subtotal		174,019	124,424	4,372	27,972	20,882	33,054	38,144	
19	Admin. and Gen'l. Facilities (c)	See note (e)	32,519	23,251	817	5,227	3,902	6,177	7,128	
20	Adjustment for Joint Use Facilities	See note (f)	(6,707)	(4,797)			(423)	(3,258)	(1,116)	
21	Total Water Poll. Abatement Prog. Facilities		199,831	142,878	5,189	33,199	24,361	35,973	44,156	

(a) Excludes allocated pension & benefits, capitalized interest and general plant.

(b) Includes allocated portion of SWWPCP facilities.

0 Include CWIP

(c) Prior to adjustment for allocated portion of SWWPCP A&G.

(d) Reflects weighting due to joint use facilities.

(e) Spttallo-3, Lns 45,50, 52, Cols (1) + (4)

(f) Spttallo-13, Ln 8; Spttallo-15, Ln 34; Spttallo-16 Ln 60; Spttallo-17, Ln 86; Spttallo-18, Lns 111 & 112; Spttallo-19, Lns 137 & 138; Spttallo-22, Ln 208; and Spttallo-23, Ln 234

(g) Federal grant Reimbursement Status Report received 10/7/99 from Joe Clare (BD-28a). Also filed with Support calcs for this study.

Table_WW-9C

**ALLOCATION OF TEST YEAR INVESTMENT FOR THE SOUTHEAST WATER POLLUTION CONTROL PLANT TO FUNCTIONAL COST COMPONENTS
Test Year 2019**

Line No.	Description	Col. (1) Reference	Retail and Springfield (Wyndmoor)					Basis of Allocation
			Total Investment \$1,000	Volume \$1,000	Capacity \$1,000	Suspended Solids \$1,000	BOD \$1,000	
NON-WATER POLLUTION ABATEMENT PROGRAM FACILITIES								
1	Main Pumping Station	Sptalalo-4, Ln 1	2,146		2,146			100% Capacity
2	Grit Chambers	Sptalalo-4, Ln 2	12,843		12,843			100% Capacity
3	Grease Building	Sptalalo-4, Ln 4	0			0		100% SS
4	Outfall Line	Sptalalo-4, Ln 7	583		583			100% Capacity
5	Sludge Digestion Facilities	Sptalalo-21, Ln 194	2,487			1,970	517	75% SS - 25% BOD
6	Sludge Disposal Facilities	Sptalalo-20, Ln 172	0			0	0	75% SS - 25% BOD
7	Settling Tanks & Flocc. Channel	Sptalalo-4, Ln 3	16,054	16,054				100% Volume
8	Compressor Building	Sptalalo-4, Ln 8	0				0	100% BOD
9	Sludge Force Main	Sptalalo-4, Ln 6	5,133			3,850	1,283	75% SS - 25% BOD
10	Subtotal		39,246	16,054	15,572	5,820	1,800	
Administrative and General Facilities								
11	Administrative and General Plant	Sptalalo-4, Ln 16 - Sptalalo-11, Ln 12	28,385					
12	Land	Sptalalo-4, Ln 12	160					
13	Subtotal		28,545	8,627	9,434	4,539	5,945	Allocated based on TOTAL SE WPCP INVESTMENT
14	Adjustment for Joint Use Facilities	Sptalalo-20, Ln 176 & Sptalalo-21, Ln 198	3,046			2,413	633	
15	Total Non-Water Pollution Abatement Program Facilities		70,837	24,681	25,006	12,772	8,378	
WATER POLLUTION ABATEMENT PROGRAM FACILITIES								
16	Influent Pump, Stat. and Screen & Grit Chamber	Sptalalo-4, Ln 19	25,549		25,549			100% Capacity
17	Primary Sedimentation Tanks	Sptalalo-4, Ln 25	21,654	21,654				100% Volume
18	Compressor Building	Sptalalo-4, Ln 21	10,161				10,161	100% BOD
19	Air Supply Facilities	Sptalalo-4, Ln 26	23,731				23,731	100% BOD
20	Final Sedimentation	Sptalalo-4, Ln 27	26,697	26,697				100% Volume
21	Effluent Pumping Station	Sptalalo-4, Ln 22	13,211		13,211			100% Capacity
22	Effluent Conduit	Sptalalo-4, Ln 20	11,878		11,878			100% Capacity
23	Scum Concentration Facilities	Sptalalo-4, Ln 18	2,885			2,885		100% SS
24	Grease Building	Sptalalo-4, Ln 34	0			0		100% SS
25	Sludge Handling Facilities	Sptalalo-4, Ln 23	0			0	0	75% SS - 25% BOD
26	Sludge Force Main	Sptalalo-4, Ln 24	1,991			1,493	498	75% SS - 25% BOD
24a	Preliminary Treatment Bldg.	Sptalalo-22, Ln 216	4,225		4,225			100% Capacity (a) x
27	Sludge Thickeners	Sptalalo-13, Ln 16	4,770			2,385	2,385	50% SS - 50% BOD (a)
28	Sludge Digesters	Sptalalo-15, Ln 42	15,377			12,181	3,196	75% SS - 25% BOD (a)
29	Sludge Disposal Facilities	Sptalalo-17, Ln 94	3,997			3,166	831	75% SS - 25% BOD (a)
30	Composting Facilities	Sptalalo-18, Ln 120	0			0	0	75% SS - 25% BOD (a)
31	Sludge Dewatering	Sptalalo-19, Ln 146	4,157			3,118	1,039	75% SS - 25% BOD (a)
29a	Grit and Ash Transfer Station	Sptalalo-23, Ln 242	0		0			100% Capacity (a) x
32	Sludge Gas Facilities	Sptalalo-16, Ln 68	3,582			2,838	744	75% SS - 25% BOD (a)
33	Subtotal		173,865	48,351	54,863	28,066	42,585	
34	Admin. and Gen'l. Facilities	Sptalalo-4, Ln 36 - Sptalalo-11, Lns 16..26	44,331	13,397	14,652	7,049	9,233	Allocated based on TOTAL SE WPCP INVESTMENT
35	Adjustment for Joint Use Facilities	See note (b)	5,344		625	3,506	1,213	
36	Total Water Pollution Abatement Program Facilities		223,540	61,748	70,140	38,621	53,031	
37	TOTAL SOUTHEAST WPC PLANT BOOK COST		294,377	86,429	95,146	51,393	61,409	
38	Less Federal Grants	Sptalalo-12	147,804	39,873	45,761	26,049	36,121	
39	ADJUSTED TOTAL SOUTHEAST WPC PLANT INVESTMENT		146,573	46,556	49,385	25,344	25,288	
			146,573	check				
	(a) Reflects weighting due to joint use facilities.		100.00%	31.8%	33.7%	17.3%	17.3%	

	Sptalalo-2,3,4	Sptalalo-6,9,11
	\$	\$
NE WPCP	479,776	493,358
SW WPCP	427,384	366,817
SE WPCP	247,392	294,377
Total	1,154,552	1,154,552
Error		0

72, 98, 124, and 150, Sptalalo-22 Ln 220 and Sptalalo-23 Ln 246.

SOUTHEAST WPC PLANT ALLOCATION OF ESTIMATED TEST YEAR FEDERAL GRANTS FOR WPAP PROJECTS

Line No.	Description	Col. (1) Reference	(1)	(2)	(3)	(4)	(5)	(6)	Basis of Allocation
			Average Test Year Net Book Cost (a) \$1,000	Total Federal Grants @ 69.6% Percent \$1,000	Volume \$1,000	Capacity \$1,000	Suspended Solids \$1,000	BOD \$1,000	
Retail and Springfield (Wyndmoor)									
(1)*69.6% (g)									
WATER POLLUTION ABATEMENT PROGRAM FACILITIES									
1	Influent Pump. Sta. & Screen & Grit Chamber	Sptallo-4, Ln 19	24,149	16,808		16,808			100% Capacity
2	Primary Sedimentation Tanks	Sptallo-4, Ln 25	20,467	14,245	14,245				100% Volume
3	Compressor Building	Sptallo-4, Ln 21	9,604	6,684				6,684	100% BOD
4	Air Supply Facilities	Sptallo-4, Ln 26	22,431	15,612				15,612	100% BOD
5	Final Sedimentation	Sptallo-4, Ln 27	25,234	17,563	17,563				100% Volume
6	Effluent Pumping Station	Sptallo-4, Ln 22	12,487	8,691		8,691			100% Capacity
7	Effluent Conduit	Sptallo-4, Ln 20	11,227	7,814		7,814			100% Capacity
8	Scum Concentration Facilities	Sptallo-4, Ln 18	2,727	1,898			1,898		100% SS
9	Grease Building	Sptallo-4, Ln 34	0	0			0		100% SS
10	Sludge Handling Facilities	Sptallo-4, Ln 23	0	0			0	0	75% SS - 25% BOD
11	Sludge Force Main	Sptallo-4, Ln 24	1,882	1,310			983	327	75% SS - 25% BOD
11a	Preliminary Treatment Bldg. (b)	Sptallo-22, Ln 202	3,993	2,855		2,855			100% Capacity (d)
12	Sludge Thickeners(b)	Sptallo-13, Ln 3	4,510	3,224			1,612	1,612	50% SS - 50% BOD (d)
13	Sludge Digesters(b)	Sptallo-15, Ln 29	14,534	10,392			8,232	2,160	75% SS - 25% BOD (d)
14	Sludge Disposal Facilities(b)	Sptallo-17, Ln 81	3,778	2,701			2,140	561	75% SS - 25% BOD (d)
15	Composting Facilities(b)	Sptallo-18, Ln 107	0	0			0	0	75% SS - 25% BOD (d)
16	Sludge Dewatering(b)	Sptallo-19, Ln 133	3,929	2,809			2,107	702	75% SS - 25% BOD (d)
16a	Grit and Ash Transfer Station	Sptallo-23, Ln 228	0	0		0			100% Capacity (d)
17	Sludge Gas Facilities(b)	Sptallo-16, Ln 55	3,386	2,421			1,918	503	75% SS - 25% BOD (d)
18	Subtotal		164,338	115,027	31,808	36,168	18,890	28,161	
19	Admin. and Gen'l. Facilities(c)	See note (e)	41,902	29,164	8,065	9,170	4,789	7,140	
20	Adjustment for Joint Use Facilities	See note (f)	5,051	3,613		423	2,370	820	
21	Total Water Poll. Abatement Prog. Facilities		211,291	147,804	39,873	45,761	26,049	36,121	
				147,804	Check				

- (a) Excludes allocated pension & benefits, capitalized interest and general plant.
- (b) Includes allocated portion of SWWPCP facilities.
- (c) Prior to adjustment for allocated portion of SWWPCP A&G. 0 Include CWIP
- (d) Reflects weighting due to joint use facilities.
- (e) Sptallo-4, Lns 28, 33, 35
- (f) Sptallo-13, Lns 8, 34, 60, 86, 112, and 138; Sptallo-22 Ln 208, and Sptallo-23 Ln 234
- (g) Federal grant Reimbursement Status Report received 10/7/99 from Joe Clare (BD-28a). Also filed with Support calcs for this study.

SOUTHWEST PLANT INVESTMENT
ALLOCATED TO NE AND SE PLANTS

Line No.	Facility Description	(1)	(2)	(3)	Basis of Allocation	(4)	(5)	(6)									
		Total Investment \$1,000 (2) + (3)	Suspended Solids \$1,000	BOD \$1,000			Total Investment \$1,000 (5)+(6)		Suspended Solids \$1,000	BOD \$1,000							
WPAP Plant - Sludge Thickener Facilities																	
1	Book Cost Before Allocated A&G (a)	Sptlallo-3, Ln 39 17,617	8,809	8,808	50% SS - 50% BOD												
2	Book Cost Subject to Federal Grant	Sptlallo-3, Ln 39 16,652	8,326	8,326	50% SS - 50% BOD	Book Cost Applicable to Federal Grants											
3	Estimated Federal Grant - %	71.5%	71.5%	71.5%	Sptlallo-10	Allocated to:	NEWPCP SEWPCP SWWPCP	Col (2) Ln 2 x Ln 12 Ln 2 x Ln 13 Ln 2 x Ln 14									
4	Estimated Federal Grant	11,906	5,953	5,953	Ln 2 x Ln 3			0 2,255 6,071									
5	Net Book Cost Before Alloc. A&G	5,711	2,856	2,855	Ln 1 - Ln 4	Total (a)		8,326									
6	A&G Facilities(a)	Sptlallo-3, BOX 3 2,607	1,304	1,303	50% SS - 50% BOD	A&G Applicable to Federal Grants											
7	A&G subject to Federal Grant(b)	Sptlallo-3, BOX 3 2,465	(Same calc. using data from col. (1) + (4)) 1,233	1,232	50% SS - 50% BOD	Allocated to:	NEWPCP SEWPCP SWWPCP	Ln 7 x Ln 12 Ln 7 x Ln 13 Ln 7 x Ln 14									
8	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Sptlallo-10			0 334 898									
9	Estimated Federal Grant	1,762	881	881	Ln 7 x Ln 8			0 334 898									
10	Net A&G Facilities (a)	845	423	422	Ln 6 - Ln 9	Total (a)		1,232									
11	Net Book Cost including A&G (a)	6,556	3,279	3,277	Ln 5 + Ln 10												
12	Percent Allocable to:		0.00%	0.00%	BOX 3	BOX X - BOD & SS ALLOCATIONS BETWEEN PLANTS BD-28b, WESTON Letter Dated 9-1-93 Attachments Facilities common to SE and SW only: Secondary lbs BD-28b <table style="margin-left: 20px;"> <tr> <td>SEWPCP</td> <td>65,000</td> <td>27.08%</td> </tr> <tr> <td>SWWPCP</td> <td>175,000</td> <td>72.92%</td> </tr> <tr> <td>Total</td> <td>240,000</td> <td>100.00%</td> </tr> </table>			SEWPCP	65,000	27.08%	SWWPCP	175,000	72.92%	Total	240,000	100.00%
SEWPCP	65,000	27.08%															
SWWPCP	175,000	72.92%															
Total	240,000	100.00%															
13	NEWPCP		27.08%	27.08%	BOX X												
14	SEWPCP		72.92%	72.92%	BOX X												
15	SWWPCP																
16	Book Cost Before Allocated A&G																
17	Allocated to:	NEWPCP	0	0	Ln 1 x Ln 12												
18		SEWPCP	4,770	2,385	Ln 1 x Ln 13												
19		SWWPCP	12,847	6,423	Ln 1 x Ln 14												
20	Total (a)		17,617	8,809	8,808												
21	A&G																
22	Allocated to:	NEWPCP	0	0	Ln 6 x Ln 12												
23		SEWPCP	706	353	Ln 6 x Ln 13												
24		SWWPCP	1,901	950	Ln 6 x Ln 14												
25	Total (a)		2,607	1,304	1,303												
26	Federal Grants(excluding A&G)																
27	Allocated to:	NEWPCP	0	0	Ln 4 x Ln 12												
28		SEWPCP	3,224	1,612	Ln 4 x Ln 13												
29		SWWPCP	8,682	4,341	Ln 4 x Ln 14												
30	Total (b)		11,906	5,953	5,953												
31	Federal Grants - A&G																
32	Allocated to:	NEWPCP	0	0	Ln 9 x Ln 12												
33		SEWPCP	478	239	Ln 9 x Ln 13												
34		SWWPCP	1,284	642	Ln 9 x Ln 14												
35	Total (b)		1,762	881	881												

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a	
SWReAllo2 - Summary of SW WPAP Plant Allocated To N.P.N. 135647.0100		February 11, 2018 9:00 a.m.						Spttallo-14

CHECK:	Total	Fed Grant	A & G
	<u>A & G</u>	<u>A & G</u>	<u>CI & FB</u>
WPAP Plant - Sludge Thickener Facilities	2,607	2,465	142
WPAP Plant - Sludge Digestion	6,990	6,607	383
WPAP Plant - Sludge Gas Facilities	1,628	1,539	89
WPAP Plant - Sludge Disposal Facilities (Centrifuges)	1,817	1,717	100
WPAP Plant - Composting Facilities	0	0	0
WPAP Plant - Dewatering Facilities	3,628	3,429	199
Non-WPAP Plant - Sludge Disposal Facilities (Disposal, Belt Filter, Centrifuge)	0	0	0
Non-WPAP Plant - Digesters	9,355	na	9,355
Total A&G Allocated to shared facilities	26,025	15,757	10,268
Total A&G	34,403		
Percent of total A&G	75.65%		
Total Non-A&G Facilities Shared Facilities	120,266		
Total Non-A&G Facilities	232,443		
	51.74%		

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 SWReAllo3 - SW WPAP Sludge Digestion Allocated To NEP.N. 135647.0100 February 11, 2018 9:00 a.m. Spttallo-15

	(1)	(2)	(3)	
	Total Investment (2)+(3)	Suspended Solids	BOD	Basis of Allocation
WPAP Plant - Sludge Digestion				
27 Book Cost Before Allocated A&G (a)	47,225	35,419	11,806	75% SS - 25% BOD
28 Book Cost Subject to Federal Grant	44,637	33,478	11,159	75% SS - 25% BOD
29 Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spttallo-10
30 Estimated Federal Grant (c)	31,915	23,936	7,979	Ln 28 x Ln 29
31 Net Book Cost Before Alloc. A&G	15,310	11,483	3,827	Ln 27 - Ln 30
32 A&G Facilities(a)	6,990	5,243	1,747	75% SS - 25% BOD
33 A&G subject to Federal Grant(b)	6,607	4,955	1,652	75% SS - 25% BOD
34 Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spttallo-10
35 Estimated Federal Grant	4,724	3,543	1,181	Ln 33 x Ln 34
36 Net A&G Facilities (a)	2,266	1,700	566	Ln 32 - Ln 35
37 Net Book Cost including ass. A&G (a)	17,576	13,183	4,393	Ln 31 + Ln 36
38 Percent Allocable to:				
39 Allocated to: NEWPCP		0.00%	0.00%	BOX 3
40 Allocated to: SEWPCP		34.39%	27.07%	BOX 3
40 Allocated to: SWWPCP		65.61%	72.93%	BOX 3
41 Book Cost Before Allocated A&G				
42 Allocated to: NEWPCP	0	0	0	Ln 27 x Ln 38
42 Allocated to: SEWPCP	15,377	12,181	3,196	Ln 27 x Ln 39
43 Allocated to: SWWPCP	31,848	23,238	8,610	Ln 27 x Ln 40
44 Total (a)	47,225	35,419	11,806	
45 A&G				
46 Allocated to: NEWPCP	0	0	0	Ln 32 x Ln 38
46 Allocated to: SEWPCP	2,276	1,803	473	Ln 32 x Ln 39
47 Allocated to: SWWPCP	4,714	3,440	1,274	Ln 32 x Ln 40
48 Total (a)	6,990	5,243	1,747	
49 Federal Grants (excluding A&G)				
50 Allocated to: NEWPCP	0	0	0	Ln 30 x Ln 38
50 Allocated to: SEWPCP	10,392	8,232	2,160	Ln 30 x Ln 39
51 Allocated to: SWWPCP	21,523	15,704	5,819	Ln 30 x Ln 40
52 Total (b)	31,915	23,936	7,979	

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

	(4)	(5)	(6)	
	Total Investment \$1,000 (5)+(6)	Suspended Solids \$1,000	BOD \$1,000	
Book Cost Applicable to Federal Grants				
Allocated to: NEWPCP	0	0	0	Ln 28 x Ln 38
Allocated to: SEWPCP	14,534	11,513	3,021	Ln 28 x Ln 39
Allocated to: SWWPCP	30,103	21,965	8,138	Ln 28 x Ln 40
Total (a)	44,637	33,478	11,159	
A&G Applicable to Federal Grants				
Allocated to: NEWPCP	0	0	0	Ln 33 x Ln 38
Allocated to: SEWPCP	2,151	1,704	447	Ln 33 x Ln 39
Allocated to: SWWPCP	4,456	3,251	1,205	Ln 33 x Ln 40
Total (a)	6,607	4,955	1,652	

	SS BD-28b	BOD BD-28b						
NEWPCP	0.4827	0.4827						
SEWPCP	0.1696	0.1696						
SWWPCP	0.3477	0.3477						
	Primary lbs BD-28b	Secondary lbs BD-28b	SS lbs	BOD lbs	SS lbs	BOD lbs		
SEWPCP	100,000	55,500	127,750	27,750	34.39%	27.07%	155,500	32.81%
SWWPCP	169,000	149,500	243,750	74,750	65.61%	72.93%	318,500	67.19%
Total	269,000	205,000	371,500	102,500	100.00%	100.00%	474,000	
	(4)	(5)	(6)					
	Total Investment \$1,000	Suspended Solids \$1,000	BOD \$1,000					
Federal Grants - A&G								
Allocated to: NEWPCP	0	0	0	Ln 35 x Ln 38				
Allocated to: SEWPCP	1,538	1,218	320	Ln 35 x Ln 39				
Allocated to: SWWPCP	3,186	2,325	861	Ln 35 x Ln 40				
Total (b)	4,724	3,543	1,181					

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 SWReAllo4 - SW WPAP Sludge Gas Facilities Allocated To P.N. 135647.0100 February 11, 2018 9:00 a.m. Spttallo-16

	(1)	(2)	(3)		(4)	(5)	(6)
	Total Investment (2) + (3)	Suspended Solids	BOD	Basis of Allocation	Total Investment \$1,000 (5)+(6)	Suspended Solids \$1,000	BOD \$1,000
WPAP Plant - Sludge Gas Facilities							
53 Book Cost Before Allocated A&G (a)	Spttallo-3, Ln 44 11,002	8,252	2,750	75% SS - 25% BOD			
54 Book Cost Subject to Federal Grant	Spttallo-3, Ln 44 10,399	7,799	2,600	75% SS - 25% BOD			
55 Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spttallo-10			
56 Estimated Federal Grant (c)	7,435	5,576	1,859	Ln 54 x Ln 55			
57 Net Book Cost Before Alloc. A&G	3,567	2,676	891	Ln 53 - Ln 56			
58 A&G Facilities(a)	Spttallo-3,BOX 3 1,628	(Same calc using Sludge Gas Fac) 1,221	407	75% SS - 25% BOD			
59 A&G subject to Federal Grant(b)	Spttallo-3,BOX 3 1,539	(Same calc using Sludge Gas Fac, cols (1)+(4)) 1,154	385	75% SS - 25% BOD			
60 Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spttallo-10			
61 Estimated Federal Grant	1,100	825	275	Ln 59 x Ln 60			
62 Net A&G Facilities (a)	528	396	132	Ln 58 - Ln 61			
63 Net Book Cost including A&G (a)	4,095	3,072	1,023	Ln 57 + Ln 62			
64 Percent Allocable to:							
65 NEWPCP		0.00%	0.00%	BOX 3			
65 SEWPCP		34.39%	27.07%	BOX 3			
66 SWWPCP		65.61%	72.93%	BOX 3			
Book Cost Before Allocated A&G					Book Cost Applicable to Federal Grants		
67 Allocated to:					Allocated to:		
67 NEWPCP	0	0	0	Ln 53 x Ln 64	NEWPCP	0	0
68 SEWPCP	3,582	2,838	744	Ln 53 x Ln 65	SEWPCP	3,386	2,682
69 SWWPCP	7,420	5,414	2,006	Ln 53 x Ln 66	SWWPCP	7,013	5,117
70 Total (a)	11,002	8,252	2,750		Total (a)	10,399	7,799
A&G					A&G Applicable to Federal Grants		
71 Allocated to:					Allocated to:		
71 NEWPCP	0	0	0	Ln 58 x Ln 64	NEWPCP	0	0
72 SEWPCP	530	420	110	Ln 58 x Ln 65	SEWPCP	501	397
73 SWWPCP	1,098	801	297	Ln 58 x Ln 66	SWWPCP	1,038	757
74 Total (a)	1,628	1,221	407		Total (a)	1,539	1,154
Federal Grants(excluding A&G)					Federal Grants - A&G		
75 Allocated to:					Allocated to:		
75 NEWPCP	0	0	0	Ln 56 x Ln 64	NEWPCP	0	0
76 SEWPCP	2,421	1,918	503	Ln 56 x Ln 65	SEWPCP	358	284
77 SWWPCP	5,014	3,658	1,356	Ln 56 x Ln 66	SWWPCP	742	541
78 Total (b)	7,435	5,576	1,859		Total (b)	1,100	825

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 SWReAllo5 - SW WPAP Sludge Disposal (Centrifuges) All P.N. 135647.0100 February 11, 2018 9:00 a.m. Spttallo-17

	(1)	(2)	(3)		(4)	(5)	(6)
	Total Investment (2) + (3)	Suspended Solids	BOD	Basis of Allocation	Total Investment \$1,000 (5)+(6)	Suspended Solids \$1,000	BOD \$1,000
WPAP Plant - Sludge Disposal Facilities (Centrifuges)	Spttallo-3, Ln 51						
79 Book Cost Before Allocated A&G (a)	12,276	9,207	3,069	75% SS - 25% BOD			
80 Book Cost Subject to Federal Grant	11,603	8,702	2,901	75% SS - 25% BOD			
81 Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spttallo-10			
82 Estimated Federal Grant (c)	8,296	6,222	2,074	Ln 80 x Ln 81			
83 Net Book Cost Before Alloc. A&G	3,980	2,985	995	Ln 79 - Ln 82			
84 A&G Facilities(a)	1,817	1,363	454	75% SS - 25% BOD			
85 A&G subject to Federal Grant(b)	1,717	1,288	429	75% SS - 25% BOD			
86 Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spttallo-10			
87 Estimated Federal Grant	1,228	921	307	Ln 85 x Ln 86			
88 Net A&G Facilities (a)	589	442	147	Ln 84 - Ln 87			
89 Net Book Cost including A&G (a)	4,569	3,427	1,142	Ln 83 + Ln 88			
90 Percent Allocable to: NEWPCP		0.00%	0.00%	BOX 3			
91 SEWPCP		34.39%	27.07%	BOX 3			
92 SWWPCP		65.61%	72.93%	BOX 3			
93 Book Cost Before Allocated A&G							
Allocated to: NEWPCP	0	0	0	Ln 79 x Ln 90	0	0	0
94 SEWPCP	3,997	3,166	831	Ln 79 x Ln 91	3,778	2,993	785
95 SWWPCP	8,279	6,041	2,238	Ln 79 x Ln 92	7,825	5,709	2,116
96 Total (a)	12,276	9,207	3,069		11,603	8,702	2,901
97 A&G							
Allocated to: NEWPCP	0	0	0	Ln 84 x Ln 90	0	0	0
98 SEWPCP	592	469	123	Ln 84 x Ln 91	559	443	116
99 SWWPCP	1,225	894	331	Ln 84 x Ln 92	1,158	845	313
100 Total (a)	1,817	1,363	454		1,717	1,288	429
101 Federal Grants (excluding A&G)							
Allocated to: NEWPCP	0	0	0	Ln 82 x Ln 90	0	0	0
102 SEWPCP	2,701	2,140	561	Ln 82 x Ln 91	400	317	83
103 SWWPCP	5,595	4,082	1,513	Ln 82 x Ln 92	828	604	224
104 Total (b)	8,296	6,222	2,074		1,228	921	307

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

		(1)	(2)	(3)			(4)	(5)	(6)	
		Total Investment (2)+(3)	Suspended Solids	BOD	Basis of Allocation			Total Investment \$1,000 (5)+(6)	Suspended Solids \$1,000	BOD \$1,000
WPAP Plant - Composting Facilities										
105	Book Cost Before Allocated A&G (a)	0	0	0	75% SS - 25% BOD					
106	Book Cost Subject to Federal Grant	0	0	0	75% SS - 25% BOD					
107	Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spttallo-10					
108	Estimated Federal Grant (c)	0	0	0	Ln 106 x Ln 107					
109	Net Book Cost Before Alloc. A&G	0	0	0	Ln 105 - Ln 108					
Spttallo-3, BOX 3 (Same calc using Sludge Compost Fac)										
110	A&G Facilities(a)	0	0	0	75% SS - 25% BOD					
Spttallo-3, BOX 3 (Same calc using Sludge Compost Fac, cols (1)+(4))										
111	A&G subject to Federal Grant(b)	0	0	0	75% SS - 25% BOD					
112	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spttallo-10					
113	Estimated Federal Grant	0	0	0	Ln 111 x Ln 112					
114	Net A&G Facilities (a)	0	0	0	Ln 110 - Ln 113					
115	Net Book Cost including A&G (a)	0	0	0	Ln 109 + Ln 114					
116	Percent Allocable to:									
117	NEWPCP		48.27%	48.27%	BOX 3					
118	SEWPCP		16.96%	16.96%	BOX 3					
118	SWWPCP		34.77%	34.77%	BOX 3					
Book Cost Before Allocated A&G										
119	Allocated to:									
120	NEWPCP	0	0	0	Ln 105 x Ln 116					
121	SEWPCP	0	0	0	Ln 105 x Ln 117					
121	SWWPCP	0	0	0	Ln 105 x Ln 118					
122	Total (a)	0	0	0						
Book Cost Applicable to Federal Grants										
119	Allocated to:									
120	NEWPCP	0	0	0	Ln 106 x Ln 116					
121	SEWPCP	0	0	0	Ln 106 x Ln 117					
121	SWWPCP	0	0	0	Ln 106 x Ln 118					
122	Total (a)	0	0	0						
A&G										
123	Allocated to:									
124	NEWPCP	0	0	0	Ln 110 x Ln 116					
125	SEWPCP	0	0	0	Ln 110 x Ln 117					
125	SWWPCP	0	0	0	Ln 110 x Ln 118					
126	Total (a)	0	0	0						
A&G Applicable to Federal Grants										
123	Allocated to:									
124	NEWPCP	0	0	0	Ln 111 x Ln 116					
125	SEWPCP	0	0	0	Ln 111 x Ln 117					
125	SWWPCP	0	0	0	Ln 111 x Ln 118					
126	Total (a)	0	0	0						
Federal Grants (excluding A&G)										
127	Allocated to:									
128	NEWPCP	0	0	0	Ln 108 x Ln 116					
129	SEWPCP	0	0	0	Ln 108 x Ln 117					
129	SWWPCP	0	0	0	Ln 108 x Ln 118					
130	Total (b)	0	0	0						

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 SWReAllo7 - SW WPAP Dewatering Facilities Allocated T.P.N. 135647.0100 February 11, 2018 9:00 a.m. Spttallo-19

	(1)	(2)	(3)		(4)	(5)	(6)
	Total Investment (2) + (3)	Suspended Solids	BOD	Basis of Allocation	Total Investment \$1,000 (5)+(6)	Suspended Solids \$1,000	BOD \$1,000
WPAP Plant - Dewatering Facilities							
131	Book Cost Before Allocated A&G (a)	24,510	18,383	6,127 75% SS - 25% BOD			
132	Book Cost Subject to Federal Grant	23,167	17,375	5,792 75% SS - 25% BOD			
133	Estimated Federal Grant - %	71.5%	71.5%	71.5% Spttallo-10			
134	Estimated Federal Grant (c)	16,564	12,423	4,141 Ln 132 x Ln 133			
135	Net Book Cost Before Alloc. A&G	7,946	5,960	1,986 Ln 131 - Ln 134			
Spttallo-3, BOX 3 (Same calc using Sludge Dewat Fac)							
136	A&G Facilities(a)	3,628	2,721	907 75% SS - 25% BOD			
Spttallo-3, BOX 3 (Same calc using Sludge Dewat Fac, cols (1)+(4))							
137	A&G subject to Federal Grant(b)	3,429	2,572	857 75% SS - 25% BOD			
138	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5% Spttallo-10			
139	Estimated Federal Grant	2,452	1,839	613 Ln 137 x Ln 138			
140	Net A&G Facilities (a)	1,176	882	294 Ln 136 - Ln 139			
141	Net Book Cost including A&G (a)	9,122	6,842	2,280 Ln 135 + Ln 140			
142	Percent Allocable to:		48.27%	48.27% BOX 3			
143	NEWPCP		16.96%	16.96% BOX 3			
144	SEWPCP		34.77%	34.77% BOX 3			
Book Cost Before Allocated A&G							
145	Allocated to:	11,831	8,873	2,958 Ln 131 x Ln 142	Book Cost Applicable to Federal Grants	11,183	8,387
146	NEWPCP	4,157	3,118	1,039 Ln 131 x Ln 143	Allocated to:	3,929	2,947
147	SEWPCP	8,522	6,392	2,130 Ln 131 x Ln 144	NEWPCP	8,055	6,041
148	SWWPCP	24,510	18,383	6,127	SEWPCP	23,167	17,375
	Total (a)				Total (a)		5,792
A&G							
149	Allocated to:	1,751	1,313	438 Ln 136 x Ln 142	A&G Applicable to Federal Grants	1,656	1,242
150	NEWPCP	615	461	154 Ln 136 x Ln 143	Allocated to:	581	436
151	SEWPCP	1,262	947	315 Ln 136 x Ln 144	NEWPCP	1,192	894
152	SWWPCP	3,628	2,721	907	SEWPCP	3,429	2,572
	Total (a)				Total (a)		857
Federal Grants (excluding A&G)							
153	Allocated to:	7,996	5,997	1,999 Ln 134 x Ln 142	Federal Grants - A&G	1,184	888
154	NEWPCP	2,809	2,107	702 Ln 134 x Ln 143	Allocated to:	416	312
155	SEWPCP	5,759	4,319	1,440 Ln 134 x Ln 144	NEWPCP	852	639
156	SWWPCP	16,564	12,423	4,141	SEWPCP	2,452	1,839
	Total (b)				Total (b)		613

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

	(1)	(2)	(3)	
	Total Investment (2)+(3)	Suspended Solids	BOD	Basis of Allocation
Non-WPAP Plant - Sludge Disposal Facilities (Disposal, Belt Filter, Centrifuge)				
BOX 1				
157	0	0	0	75% SS - 25% BOD
Input				
158	0	0	0	75% SS - 25% BOD
159	71.5%	71.5%	71.5%	Spttallo-10
160	0	0	0	Ln 158 x Ln 159
161	0	0	0	Ln 157 - Ln 160
Spttallo-3, BOX 3 (Same calc using Non WPAP Sludge Disp Fac, but CWIP on sludge disposal not allocated any SW WPCP A&G Facilities per JRM)				
162	0	0	0	75% SS - 25% BOD
163	na			
164	0	0	0	75% SS - 25% BOD
165	71.5%	71.5%	71.5%	Spttallo-10
166	0	0	0	Ln 162 x Ln 164
167	0	0	0	Ln 162 - Ln 165
167	0	0	0	Ln 161 + Ln 166
168		0.00%	0.00%	BOX 3
169		34.39%	27.07%	BOX 3
170		65.61%	72.93%	BOX 3
Book Cost Before Allocated A&G				
171	(1)	(2)	(3)	
172	0	(1)*.75	(1)-(2)	BOX 1
173	0	0	0	BOX 1
174	0	0	0	BOX 1
Total (a)				
174	0	0	0	
A&G				
175	0	0	0	Ln 162 x Ln 168
176	0	0	0	Ln 162 x Ln 169
177	0	0	0	Ln 162 x Ln 170
178	0	0	0	

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.

BOX 1 - SPLIT OF BOOK COSTS BEFORE ALLOCATION OF A&G				
Book costs consist of:				
Sludge Disposal (Ln 6)	Spttallo-3			\$1,000
Belt Filter System (Ln 7)				0
Centrifuge System (Ln 8)				0
Subtotal				0
CWIP Sludge disposal costs included in subtotal are				
All Other costs				0
Allocation of costs between plants:				
CWIP Sludge disposal costs:				
NEWPCP	48.27%			0
SEWPCP	16.96%			0
SWWPCP	34.77%			0
All Other costs:				
	BOD	SS	Weighted	
NEWPCP	0.00%	0.00%	0.00%	0
SEWPCP	34.39%	27.07%	28.90%	0
SWWPCP	65.61%	72.93%	71.10%	0
Total Allocated Costs:				
NEWPCP		0.00%		0
SEWPCP		0.00%		0
SWWPCP		0.00%		0
Total				
0				

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SWReAllo9 - SW Non-WPAP Digesters Allocated To NE at P.N. 135647.0100		February 11, 2018 9:00 a.m.					Spttallo-21

	(1)	(2)	(3)	
	Total Investment (2) + (3)	Suspended Solids	BOD	Basis of Allocation
Non-WPAP Plant - Digesters				
	Sptallo-3, Ln 5			
179	Book Cost Before Allocated A&G (a)	7,636	5,727	1,909 75% SS - 25% BOD
	Input			
180	Book Cost Subject to Federal Grant	0	0	0 75% SS - 25% BOD
181	Estimated Federal Grant - %	71.5%	71.5%	Sptallo-10
182	Estimated Federal Grant (c)	0	0	0 Ln 180 x Ln 181
183	Net Book Cost Before Alloc. A&G	7,636	5,727	1,909 Ln 179 - Ln 182
	Sptallo-3, BOX 3	(Same calc using Non WPAP Digesters)		
184	A&G Facilities(a)	9,355	7,016	2,339 75% SS - 25% BOD
185	A&G subject to Federal Grant(b)	na	0	0 75% SS - 25% BOD
186	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5% Sptallo-10
187	Estimated Federal Grant	0	0	0 Ln 185 x Ln 186
188	Net A&G Facilities (a)	9,355	7,016	2,339 Ln 184 - Ln 187
189	Net Book Cost including A&G (a)	16,991	12,743	4,248 Ln 183 + Ln 188
190	Percent Allocable to: NEWPCP		0.00%	0.00% BOX 3
191	SEWPCP		34.39%	27.07% BOX 3
192	SWWPCP		65.61%	72.93% BOX 3
Book Cost Before Allocated A&G				
193	Allocated to: NEWPCP	0	0	0 Ln 179 x Ln 190
194	SEWPCP	2,487	1,970	517 Ln 179 x Ln 191
195	SWWPCP	5,149	3,757	1,392 Ln 179 x Ln 192
196	Total (a)	7,636	5,727	1,909
A&G				
197	Allocated to: NEWPCP	0	0	0 Ln 184 x Ln 190
198	SEWPCP	3,046	2,413	633 Ln 184 x Ln 191
199	SWWPCP	6,309	4,603	1,706 Ln 184 x Ln 192
200	Total (a)	9,355	7,016	2,339

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SWReAllo10 - SW WPAP Prelim. Trtmt Bldg Allocated To P.N. 135647.0100		February 11, 2018 9:00 a.m.					Spttallo-22

SOUTHWEST PLANT INVESTMENT
ALLOCATED TO NE AND SE PLANTS

Line No.	Facility Description	(1) Total Investment \$1,000 (2)+(3)	(2) Capacity \$1,000	(3) BOD \$1,000	Basis of Allocation	(4) Total Investment \$1,000 (5)+(6)	(5) Capacity \$1,000	(6) BOD \$1,000
WPAP Plant - Preliminary Treatment Bldg								
201	Book Cost Before Allocated A&G (a)	Spttallo-3, Ln 31 29,055	29,055	0	100% Capacity - 0% BOD			
202	Book Cost Subject to Federal Grant	Spttallo-3, Ln 31 27,463	27,463	0	100% Capacity - 0% BOD			
203	Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spttallo-10			
204	Estimated Federal Grant	19,636	19,636	0	Ln 202 x Ln 203			
205	Net Book Cost Before Alloc. A&G	9,419	9,419	0	Ln 201 - Ln 204			
206	A&G Facilities(a)	Spttallo-3, BOX 3 4,300	4,300	0	100% Capacity - 0% BOD			
207	A&G subject to Federal Grant(b)	Spttallo-3, BOX 3 4,065	4,065	0	100% Capacity - 0% BOD			
208	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spttallo-10			
209	Estimated Federal Grant	2,906	2,906	0	Ln 207 x Ln 208			
210	Net A&G Facilities (a)	1,394	1,394	0	Ln 206 - Ln 209			
211	Net Book Cost including A&G (a)	10,813	10,813	0	Ln 205 + Ln 210			
212	Percent Allocable to: NEWPCP		0.00%	0.00%				
213	SEWPCP		14.54%	0.00%	0.1454; BD-28c, Fax Dated 9/22/93 from J. S. Clare III			
214	SWWPCP		85.46%	0.00%	0.8546; BD-28c, Fax Dated 9/22/93 from J. S. Clare III			
Book Cost Before Allocated A&G								
215	Allocated to: NEWPCP	0	0	0	Ln 201 x Ln 212	Book Cost Applicable to Federal Grants	Col (2)	Col (3)
216	SEWPCP	4,225	4,225	0	Ln 201 x Ln 213	Allocated to: NEWPCP	0	0
217	SWWPCP	24,830	24,830	0	Ln 201 x Ln 214	SEWPCP	3,993	3,993
218	Total (a)	29,055	29,055	0		SWWPCP	23,470	23,470
A&G								
219	Allocated to: NEWPCP	0	0	0	Ln 206 x Ln 212	Allocated to: NEWPCP	0	0
220	SEWPCP	625	625	0	Ln 206 x Ln 213	SEWPCP	591	591
221	SWWPCP	3,675	3,675	0	Ln 206 x Ln 214	SWWPCP	3,474	3,474
222	Total (a)	4,300	4,300	0		Total (a)	4,065	4,065
Federal Grants(excluding A&G)								
223	Allocated to: NEWPCP	0	0	0	Ln 204 x Ln 212	Allocated to: NEWPCP	0	0
224	SEWPCP	2,855	2,855	0	Ln 204 x Ln 213	SEWPCP	423	423
225	SWWPCP	16,781	16,781	0	Ln 204 x Ln 214	SWWPCP	2,483	2,483
226	Total (b)	19,636	19,636	0		Total (b)	2,906	2,906

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 SWReAllo11 - SW WPAP Grit & Ash Transfer Allocated TP.N. 135647.0100 February 11, 2018 9:00 a.m. Spttallo-23

Line No.	Facility Description	(1) Total Investment \$1,000 (2)+(3)	(2) Capacity \$1,000	(3) BOD \$1,000	Basis of Allocation	(4) Total Investment \$1,000 (5)+(6)	(5) Capacity \$1,000	(6) BOD \$1,000
WPAP Plant - Grit & Ash Transfer Station								
227	Book Cost Before Allocated A&G (a)	0	0	0	100% Capacity - 0% BOD			
228	Book Cost Subject to Federal Grant	0	0	0	100% Capacity - 0% BOD			
229	Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spttallo-10			
230	Estimated Federal Grant	0	0	0	Ln 228 x Ln 229			
231	Net Book Cost Before Alloc. A&G	0	0	0	Ln 227 - Ln 230			
Spttallo-3, BOX 3								
232	A&G Facilities(a)	0	0	0	100% Capacity - 0% BOD			
Spttallo-3, BOX 3 (Same calc. using data from col. (1) + (4))								
233	A&G subject to Federal Grant(b)	0	0	0	100% Capacity - 0% BOD			
234	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spttallo-10			
235	Estimated Federal Grant	0	0	0	Ln 233 x Ln 234			
236	Net A&G Facilities (a)	0	0	0	Ln 232 - Ln 235			
237	Net Book Cost including A&G (a)	0	0	0	Ln 231 + Ln 236			
238	Percent Allocable to:		0.00%	0.00%				
239	NEWPCP		29.08%	0.00%	BD-28c, Fax Dated 9/22/93 from J. S. Clare III			
240	SEWPCP		70.92%	0.00%	BD-28c, Fax Dated 9/22/93 from J. S. Clare III			
Book Cost Before Allocated A&G								
241	Allocated to: NEWPCP	0	0	0	Ln 227 x Ln 238	0	0	Ln 228 x Ln 238
242	SEWPCP	0	0	0	Ln 227 x Ln 239	0	0	Ln 228 x Ln 239
243	SWWPCP	0	0	0	Ln 227 x Ln 240	0	0	Ln 228 x Ln 240
244	Total (a)	0	0	0		0	0	0
Book Cost Applicable to Federal Grants								
Col (2)								
Col (3)								
A&G								
245	Allocated to: NEWPCP	0	0	0	Ln 232 x Ln 238	0	0	Ln 233 x Ln 238
246	SEWPCP	0	0	0	Ln 232 x Ln 239	0	0	Ln 233 x Ln 239
247	SWWPCP	0	0	0	Ln 232 x Ln 240	0	0	Ln 233 x Ln 240
248	Total (a)	0	0	0		0	0	0
A&G Applicable to Federal Grants								
Federal Grants(excluding A&G)								
249	Allocated to: NEWPCP	0	0	0	Ln 230 x Ln 238	0	0	Ln 235 x Ln 238
250	SEWPCP	0	0	0	Ln 230 x Ln 239	0	0	Ln 235 x Ln 239
251	SWWPCP	0	0	0	Ln 230 x Ln 240	0	0	Ln 235 x Ln 240
252	Total (b)	0	0	0		0	0	0

(a) Includes allocated pension & benefits, capitalized interest, and general plant.
 (b) Excludes allocated pension & benefits and capitalized interest.
 (c) Adjusted for Work Progress Grant percentages.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ALLOC - Allocation of TY Plant Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptalio-24

WW - 9 currently developed on Retcos-23

TEST YEAR INVESTMENT IN THE WASTEWATER SYSTEM
SUMMARY OF ALLOCATIONS TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2019

Line No.	Cost Component	(1) Total Direct Investment Incl. A&G \$1,000	(2) Investment Allocated to Contract Service \$1,000	(3) Investment Allocated to Retail Service \$1,000	(4) Col. (1) Reference	(5) Col. (2) Reference
COLLECTION SYSTEM						
1	Sewers (a) - Capacity	1,494,948	17,991	1,476,957	Sptalio-5	Ln 1.2
2	Pumping Stations - Capacity	30,239	252	29,987	Sptalio-5	Ln 3
3	LTCP Investment	54,692	10,446	44,246		
4	Total Collection System	1,579,879	28,689	1,551,190		
WATER POLLUTION CONTROL PLANTS						
Northeast Plant:						
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
5	- Capacity	5,635	1,179	4,456	Sptalio-6	Ln 49
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
6	Volume	67,307	18,745	48,562	Sptalio-6	Ln 49
7	Capacity	26,353	6,171	20,182	Sptalio-6	Ln 49
8	Suspended Solids	72,697	13,704	58,993	Sptalio-6	Ln 49
9	BOD	94,462	23,524	70,938	Sptalio-6	Ln 49
10	Subtotal	260,819	62,144	198,675		
11	Total Northeast Plant	266,454	63,323	203,131		
Southwest Plant:						
12	Retail - Capacity	16,696	0	16,696	Sptalio-9	Ln 45
Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
13	Volume	70,838	30,245	40,593	Sptalio-9	Ln 45
14	Capacity	23,065	8,489	14,576	Sptalio-9	Ln 45
15	Suspended Solids	59,757	16,885	42,872	Sptalio-9	Ln 45
16	BOD	53,583	26,228	27,355	Sptalio-9	Ln 45
17	Total Southwest Plant	223,939	81,847	142,092		
Southeast Plant:						
Retail and Springfield (Wyndmoor)						
18	Volume	46,556	423	46,133	Sptalio-11	Ln 39
19	Capacity	49,385	275	49,110	Sptalio-11	Ln 39
20	Suspended Solids	25,344	79	25,265	Sptalio-11	Ln 39
21	BOD	25,288	69	25,219	Sptalio-11	Ln 39
22	Total Southeast Plant	146,573	846	145,727		
23	Total Water Pollution Control Plants	636,966	146,016	490,950		
24	Total Investment	2,216,845	174,705	2,042,140		

BOX 1 - CHECK OF TOTAL PLANT ON Sptalio-24 vs Sptalio-5		
	Ref:	\$1,000
Total Plant	Sptalio-5	2,734,431
Less Fed Grants - NE	Sptalio-8	(226,904)
Less Fed Grants - SW	Sptalio-10	(142,878)
Less Fed Grants - SE	Sptalio-12	(147,804)
Total		2,216,845
Total Per This Page		2,216,845
Difference		0

(a) Total sewers investment from Sptalio-5 includes Storm and Flood Relief.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
INVSTCap1 - WPCP Investment Per Unit Of Capacity	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Spttallo-25

WATER POLLUTION CONTROL PLANT INVESTMENT PER UNIT OF CAPACITY

Test Year 2019

Line No.	Cost Component	(1) Direct Investment \$	(2) Units of Capacity	(3) Unit Investment \$ (1)/(4)	(4) Input Units of Capacity	
Northeast Water Pollution Control Plant Retail, Abinton, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
1	- Capacity	5,635,000	370 mgd = 49,470 Mcf/day	113.9074 /Mcf/day	49,470	Mcf/day
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
2	Volume	67,307,000	76,650 mg = 10,247,000 Mcf	6.5685 /Mcf	10,247,000	Mcf
3	Capacity	26,353,000	420 mgd = 56,150 Mcf/day	469.3321 /Mcf/day	56,150	Mcf/day
4	Suspended Solids	72,697,000	173,240,000 lbs	419.6317 /1,000 lbs	173,240,000	lbs
5	BOD	94,462,000	128,491,000 lbs	735.1643 /1,000 lbs	128,491,000	lbs
Southwest Water Pollution Control Plant						
6	Retail - Capacity	16,696,000	50 mgd = 6,684 Mcf/day	2,497.9054 /Mcf/day	6,684	Mcf/day
Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
7	Volume	70,838,000	73,000 mg = 9,759,000 Mcf	7.2587 /Mcf	9,759,000	Mcf
8	Capacity	23,065,000	400 mgd = 53,476 Mcf/day	431.3150 /Mcf/day	53,476	Mcf/day
9	Suspended Solids	59,757,000	133,057,000 lbs	449.1083 /1,000 lbs (a)	178,354,000	lbs
10	BOD	53,583,000	78,907,000 lbs	679.0674 /1,000 lbs (a)	123,377,000	lbs
Southeast Water Pollution Control Plant Retail and Springfield (Wyndmoor)						
11	Volume	46,556,000	40,880 mg = 5,465,000 Mcf	8.5189 /Mcf	5,465,000	Mcf
12	Capacity	49,385,000	224 mgd = 29,947 Mcf/day	1,649.0800 /Mcf/day	29,947	Mcf/day
13	Suspended Solids	25,344,000	66,065,000 lbs	383.6222 /1,000 lbs	66,065,000	lbs
14	BOD	25,288,000	56,940,000 lbs	444.1166 /1,000 lbs	56,940,000	lbs

mg - million gallons
 mgd - million gallons per day
 Mcf - thousand cubic feet
 Mcf/day - thousand cubic feet per day
 lbs - pounds

(a) Unit investment adjusted for additional A&G in water plant associated with sewer plant.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
INVSTCap2 - SW WPCP Treatment Plant Unit Costs	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptalalo-26

DEVELOPMENT OF UNIT COSTS FOR SOUTHWEST TREATMENT PLANT
Weighted between 200 mgd and 210 mgd facilities

	200 mgd 1,000	210 mgd 1,000
Total SS Cost \$95,730,000		
Non-Abatement:		
Direct	18,410 Sptalalo-9, Ln 16 Less ----->	1,990 Sptalalo-9, Ln 4
Admin. & General	19,610 Sptalalo-9, Ln 19+Ln 20 Less ->	2,120 Sptalalo-9, (Ln 19 + Ln 20)/Ln 16 * Line above [1,990]
Abatement:		
Direct	47,509 Sptalalo-9, Ln 39 Less ----->	1,405 Sptalalo-9, (Ln 25..29)
Admin. & General	4,551 Sptalalo-9, Ln 40+Ln 41 Less ->	135 Sptalalo-9, (Ln 40 + Ln 41)/Ln 39 * Line above [1,405]
	<u>90,080</u>	<u>5,650</u>
Less Federal Grants:		
Direct	32,104 Sptalalo-10, Ln 18 Less ----->	950 Sptalalo-10, (Ln 4..8)
Admin. & General	2,835 Sptalalo-10, Ln 19+Ln 20 Less ->	84 Sptalalo-10, (Ln 19 + Ln 20)/Ln 18 * Line above [950]
Net Investment	<u>55,141</u>	<u>4,616</u>
Total BOD Cost \$97,739,000		
Non-Abatement:		
Direct	10,899 Sptalalo-9, Ln 16 Less ----->	0 Sptalalo-9, Ln 4
Admin. & General	22,820 Sptalalo-9, Ln 19+Ln 20 Less ->	0 Sptalalo-9, (Ln 19 + Ln 20)/Ln 16 * Line above [0]
Abatement:		
Direct	21,407 Sptalalo-9, Ln 39 Less ----->	35,031 Sptalalo-9, (Ln 25..29)
Admin. & General	2,876 Sptalalo-9, Ln 40+Ln 41 Less ->	4,706 Sptalalo-9, (Ln 40 + Ln 41)/Ln 39 * Line above [35031]
	<u>58,002</u>	<u>39,737</u>
Less Federal Grants:		
Direct	14,469 Sptalalo-10, Ln 18 Less ----->	23,675 Sptalalo-10, (Ln 4..8)
Admin. & General	2,281 Sptalalo-10, Ln 19+Ln 20 Less ->	3,731 Sptalalo-10, (Ln 19 + Ln 20)/Ln 18 * Line above [23675]
Net Investment	<u>41,252</u>	<u>12,331</u>
	<u>Net Investment</u>	<u>Units</u> <u>Unit Investment</u>
210 mgd		
SS	4,616,000	178,354 1,000 lbs \$25.8811 per 1,000 lbs
BOD	12,331,000	123,377 1,000 lbs \$99.9457 per 1,000 lbs
200 mgd		
SS	55,141,000	130,287 1,000 lbs \$423.2272 per 1,000 lbs
BOD	41,252,000	71,232 1,000 lbs \$579.1217 per 1,000 lbs
Total		
SS	59,757,000	133,057 1,000 lbs \$449.1083 per 1,000 lbs
BOD	53,583,000	78,907 1,000 lbs \$679.0674 per 1,000 lbs

SW WPCP	MGD	mg/l	Lbs
1972/73 Design:			
Design Flows	210		
Design SS		279	178,354,000
Design BOD		193	123,377,000
1984/85 Rating:			
Design Flows	200		
Design SS		279	169,861,000
Design BOD		193	117,502,000
Design Flows	200		
Design SS		214	130,287,000
Design BOD		117	71,232,000

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 INVSTCap3 - Whlsl Units of Service for Treatment Plants P.N. 135647.0100 February 11, 2018 9:00 a.m. Spttallo-27

Reference: [Units-2](#)

	Units	Northeast WPC Plant							Southwest WPC Plant				WPC Plant		
		Abington	Bensalem	Bucks County	Cheltenham	Lower Moreland	Lower Southampton	Total Northeast	DELCORA	Lower Merion	Springfield (Excluding Wyndoor)	Upper Darby	Total Southwest	Springfield (Wyndoor)	Total
Contract Maximum Units															
Capacity:															
Sanitary Wastewater	(Mcf/day)	824	1,014	6,416	2,743	508	1,364	12,869	13,392	2,728	397	3,024	19,541	167	32,577
Infiltration	(Mcf/day)	20	20	140	60	10	30	280	0	60	10	70	140	0	420
Total	(Mcf/day)	844	1,034	6,556	2,803	518	1,394	13,149	13,392	2,788	407	3,094	19,681	167	32,997
															33,244
Volume:															
Sanitary Wastewater	(Mcf)	217,292	299,271	1,171,123	654,370	92,714	348,409	2,783,179	2,439,840	707,553	156,150	829,545	4,133,088	48,797	6,965,064
Infiltration	(Mcf)	4,500	5,600	35,100	15,000	2,800	7,500	70,500	0	14,900	2,200	16,600	33,700	900	105,100
Total	(Mcf)	221,792	304,871	1,206,223	669,370	95,514	355,909	2,853,679	2,439,840	722,453	158,350	846,145	4,166,788	49,697	7,070,164
Suspended Solids:															
Sanitary Wastewater	(1,000 lbs)	2,481	3,734	13,400	5,635	966	6,000	32,216	19,487	7,250	3,300	7,349	37,386	200	69,802
Infiltration	(1,000 lbs)	28	35	219	94	17	47	440	0	93	14	104	211	6	657
Total	(1,000 lbs)	2,509	3,769	13,619	5,729	983	6,047	32,656	19,487	7,343	3,314	7,453	37,597	206	70,459
BOD:															
Sanitary Wastewater	(1,000 lbs)	2,102	5,340	13,400	4,818	729	5,500	31,889	21,771	6,871	3,100	6,831	38,573	155	70,617
Infiltration	(1,000 lbs)	7	9	55	23	4	12	110	0	23	3	26	52	1	163
Total	(1,000 lbs)	2,109	5,349	13,455	4,841	733	5,512	31,999	21,771	6,894	3,103	6,857	38,625	156	70,780

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE WH - 6

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO ABINGTON TOWNSHIP

Line No.	Cost Component	Units	Investment Per Unit \$	Number of Contract Units	Infiltration/ Inflow Capacity Allocation Factor	Allocated Investment \$	Allocated Investment Rounded \$
	<u>Treatment</u>		Sptalalo-25	Sptalalo-27	Ref A.	(2)*(3)*(4)	
1	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton - Capacity	Mcf/day	113.9074	844		96,138	96,000
2	Retail, Abington, Bensalem, Bucks County W&SA, Lower Southampton - Volume	Mcf	6.5685	221,792		1,456,841	1,457,000
3	- Capacity	Mcf/day	469.3321	844		396,116	396,000
4	- SS	1,000 lbs	419.6317	2,509		1,052,856	1,053,000
5	- BOD	1,000 lbs	735.1643	2,109		1,550,462	1,550,000
6	Total Treatment					4,552,413	4,552,000
	<u>Conveyance</u>						
7	Shady Lane & City Line	cfs	58,421	1.368	1.0225	81,718	82,000
8	Pennypack & City Line	cfs	49,045	7.694	1.0225	385,843	386,000
9	Cottman and Orville	cfs	45,328	0.480	1.0225	22,247	22,000
10	Total Conveyance					489,808	490,000
			<u>System Investment/Cost</u>		<u>Allocation</u>		
11	LTCP Investment		54,692,000		0.5824%	318,546	319,000
12	Total Allocated System Investment					5,360,767	5,361,000

	Investment	Reference
Abbingtion	5,361,000	Line 12, Column (6)
Bensalem	9,230,000	Sptalalo-36
Bucks County	31,398,000	Sptalalo-37
Cheltenham	13,526,000	Sptalalo-29
DELCORA	52,186,000	Sptalalo-38
Lower Merion	16,234,000	Sptalalo-30
Lower Moreland	2,781,000	Sptalalo-31
Lower Southampton	20,488,000	Sptalalo-32
Springfield (less W)	6,122,000	Sptalalo-33
Springfield	1,177,000	Sptalalo-35
Upper Darby	16,202,000	Sptalalo-39

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE WH - 9

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO CHELTENHAM TOWNSHIP

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$	(3) Number of Contract Units	(4) Infiltration/ Inflow Capacity Allocation Factor	(5) Allocated Investment \$	(6) Allocated Investment Rounded \$
	<u>Treatment</u>		Splitallo-25	Splitallo-27	Ref. A	(2)*(3)*(4)	
1	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton - Capacity	Mcf/day	0	2,803		0	0
2	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton - Volume	Mcf	6,5685	669,370		4,396,757	4,397,000
3	- Capacity	Mcf/day	469.3321	2,803		1,315,538	1,316,000
4	- SS	1,000 lbs	419.6317	5,729		2,404,070	2,404,000
5	- BOD	1,000 lbs	735.1643	4,841		3,558,930	3,559,000
6	Total Treatment					11,675,295	11,676,000
	<u>Conveyance</u>						
7	Cheltenham and Tacony Creek	cfs	15,378	29,000	1.0225	455,996	456,000
8	Bouvier Street	cfs	23,315	2,750	1.0225	65,559	66,000
9	Total Conveyance					521,555	522,000
			<u>System Investment/Cost</u>		<u>Allocation</u>		
10	LTCP Investment		54,692,000		2.428005%	1,327,924	1,328,000
11	Total Allocated System Investment					13,524,774	13,526,000

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNPALLO3 - Lower Merion Allocated Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Spltallo-30

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE WH - 11

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO LOWER MERION TOWNSHIP

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$	(3) Number of Contract Units	(4) Infiltration/ Inflow Capacity Allocation Factor	(5) Allocated Investment \$	(6) Allocated Investment Rounded \$
<u>Treatment</u>							
Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby							
1	Volume	Mcf	7.2587	722,453		5,244,070	5,244,000
2	Capacity	Mcf/day	431.3150	2,788		1,202,506	1,203,000
3	Suspended Solids	1,000 lbs	449.1083	7,343		3,297,802	3,298,000
4	BOD	1,000 lbs	679.0674	6,894		4,681,491	4,681,000
5	Total Treatment					14,425,869	14,426,000
<u>Conveyance</u>							
6	City Avenue & 73rd Street	cfs	30,189	2.860	1.0225	88,283	88,000
7	City Avenue & 66rd Street	cfs	35,407	15.880	1.0225	574,914	575,000
8	City Avenue & Overbrook Station	cfs	69,259	2.290	1.0225	162,172	162,000
9	City Avenue & 59rd Street	cfs	132,481	0.330	1.0225	44,702	45,000
10	City Avenue & 54rd Street	cfs	57,917	0.050	1.0225	2,961	3,000
11	City Avenue & 51rd Street	cfs	60,355	8.470	1.0225	522,709	523,000
12	City Avenue & Conshohocken Avenue	cfs	103,583	0.390	1.0225	41,306	41,000
13	City Avenue & Presidential Boulevard	cfs	134,831	1.300	1.0225	179,224	179,000
14	Sewers and Meter Station	cfs	143,297	1.300	1.0225	190,478	190,000
15	Neill Drive Pump Station	cfs	43,227	0.052	1.0225	2,298	2,000
15	Barclay Building & Friends Central School	cfs					
15	Charged Inside Rates						
16	Total Conveyance					1,809,047	1,808,000
System Investment/Allocation							
17	LTCP Investment		54,692,000		0.0000%	0	0
17	Total Allocated System Investment					16,234,916	16,234,000

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNPALLO4 - Lower Moreland Allocated Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Spltallo-31

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE WH - 12

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO LOWER MORELAND TOWNSHIP

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$	(3) Number of Contract Units	(4) Infiltration/ Inflow Capacity Allocation Factor	(5) Allocated Investment \$	(6) Allocated Investment Rounded \$
	<u>Treatment</u>		<u>Spltallo-25</u>	<u>Spltallo-27</u>	Ref. A	(2)*(3)*(4)	
1	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton - Capacity	Mcf/day	113,9074	518		59,004	59,000
2	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton - Volume	Mcf	6,5685	95,514		627,384	627,000
3	- Capacity	Mcf/day	469,3321	518		243,114	243,000
4	- SS	1,000 lbs	419,6317	983		412,498	412,000
5	- BOD	1,000 lbs	735,1643	733		538,875	539,000
6	Total Treatment					1,880,875	1,880,000
	<u>Conveyance</u>						
7	Woodjavern Road and City Line	cfs	195,719	0.414	1.0225	82,851	83,000
8	Erwin Street and County Line	cfs	94,589	0.065	1.0225	6,287	6,000
9	Moreland Road and Pine Road	cfs	64,910	0.035	1.0225	2,323	2,000
10	Pine Road and Radburn Road	cfs	66,406	0.038	1.0225	2,580	3,000
11	Welsh Road and County Line	cfs	66,860	0.606	1.0225	41,429	41,000
12	City Line and Red Lion	cfs	66,860	0.017	1.0225	1,162	1,000
13	Conveyance Line	cfs	62,555	7.796	1.0225	498,652	499,000
14	PC-30 Improvements (a)		46,734,645		0.15%	70,102	70,000
15	Total Conveyance					705,386	705,000
			<u>System Investment/Cost</u>		<u>Allocation</u>		
16	LTCP Investment		54,692,000		0.35883%	196,251	196,000
16	Total Allocated System Investment					2,782,512	2,781,000

(a) Allocated 0.15 percent of the Sewer Fund's share of the project funding (\$4,6734,645).

- cfs - cubic feet per second
- Mcf - thousand cubic feet
- Mcf/day - thousand cubic feet per day
- lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
CONVREV - Revisions to Conveyance Calculations	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Spttallo-34

NOTE

Prior to 9/29/95, the below descriptions of facilities and units were used in B&V calculations. However, after talking to J. Palladino on 9/28/95, JLW discovered that there are now 3 connection points for Springfield Excl. Wyndmoor (aka Erdenheim). Nomenclature of the three connections are different as well.

Prior to 9/29/95:

Conveyance	Units	Investment Per Unit	Contract Units	Allocation Factor	Allocated Investment	Investment Rounded
Stenton and Erdenheim						
Sewers	cfs	139,780	4,000	1.0225	571,700	572,000
Central Schuylkill Pump Station	cfs	13,211	4,000	1.0225	54,033	54,000
Meter Station	ea	35,702	1,000	1.0225	36,505	37,000
Total					662,238	662,000
Northwestern & Wissahickon						
Sewers	cfs	139,780	0,200	1.0225	28,585	29,000
Central Schuylkill Pump Station	cfs	13,211	0,200	1.0225	2,702	3,000
Meter Station	ea	51,349	0,200	1.0225	10,501	11,000
Total					41,788	42,000
Total Conveyance					704,026	704,000

9/29/95 Revisions:

1. Stenton and Erdenheim is called Erdenheim and Stenton.
2. Northwestern and Wissahickon is called Northwestern and Stenton
3. A third connection exists (v. small and not metered, flow assumed to be 0.8 MG per quarter) called Northwestern and Thomas.
4. A large portion of the flow through the E & S connection has been shifted to the N & S connection, as mentioned in the contract dated 3/4/74, item 7.

Prior:

March 1, 1961 Contract

E & S	4.00 cfs	2.15 mgd
N & S	0.20 cfs	0.10 mgd

March 4, 1974 Contract

E & S	1.85 cfs	0.75 mgd	<- Revised dist. of E&S flows
N & S	0.20 cfs	0.10 mgd	
N & S	2.15 cfs	1.40 mgd	<- Revised dist. of E&S flows
N & S	2.35 cfs	1.50 mgd	

Revised:

E & S	2.00 cfs	1.10 mgd	
N & S	2.60 cfs	2.10 mgd	
Total	4.60 cfs	3.20 mgd	<- Totals redistributed in proportion to March 4, 1974 contract units

5. Meter Station investment at N & S (formerly N & W) is revised to \$10,270 rather than 0.2 * \$51,349 to be consistent with E & S connection.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNPALLO7 - Springfield (Wyndmoor) Allocated Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Spttallo-35

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE_WH-10

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO SPRINGFIELD (WYNDMOOR) TOWNSHIP

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$	(3) Number of Contract Units	(4) Infiltration/ Inflow Capacity Allocation Factor	(5) Allocated Investment \$	(6) Allocated Investment Rounded \$
	<u>Treatment</u>		<u>Spttallo-25</u>	<u>Spttallo-27</u>	Ref. A	(2)*(3)*(4)	
	Retail and Springfield (Wyndmoor)						
1	Volume	Mcf	8.5189	49,697		423,364	423,000
2	Capacity	Mcf/day	1649.0800	167		275,396	275,000
3	Suspended Solids	1,000 lbs	383.6222	206		79,026	79,000
4	BOD	1,000 lbs	444.1166	156		69,282	69,000
5	Total Treatment					847,068	846,000
	<u>Conveyance</u>						
6		cfs	167,854	1.930	1.0225	331,247	331,000
7	Total Conveyance					331,247	331,000
8	Total Allocated System Investment					1,178,315	1,177,000

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE_WH-2

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO BENSALEM TOWNSHIP

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$ Spltallo-25	(3) Number of Contract Units Spltallo-27	(4) Infiltration/ Inflow Capacity Allocation Factor Ref. A	(5) Allocated Investment \$ (2)*(3)*(4)	(6) Allocated Investment Rounded \$
<u>Treatment</u>							
1	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton - Capacity	Mcf/day	113,9074	1,034		117,780	118,000
2	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton - Volume	Mcf	6,5685	304,871		2,002,545	2,003,000
3	- Capacity	Mcf/day	469,3321	1,034		485,289	485,000
4	- SS	1,000 lbs	419,6317	3,769		1,581,592	1,582,000
5	- BOD	1,000 lbs	735,1643	5,349		3,932,394	3,932,000
6	Total Treatment					8,119,600	8,120,000
<u>Conveyance</u>							
7	A-1	cfs	84,833	0.370	1.0225	32,094	32,000
8	A-2	cfs	105,688	0.880	1.0225	95,098	95,000
9	A-3	cfs	117,743	0.120	1.0225	14,447	14,000
10	A-4	cfs	115,847	0.080	1.0225	9,476	9,000
11	B	cfs	131,354	0.840	1.0225	112,820	113,000
12	C	cfs	72,634	0.750	1.0225	55,701	56,000
13	D	cfs	67,910	0.460	1.0225	31,941	32,000
14	E	cfs	204,911	0.380	1.0225	79,618	80,000
15	F	cfs	49,726	0.580	1.0225	29,490	29,000
16	G-1	cfs	48,680	0.270	1.0225	13,439	13,000
17	G-2	cfs	48,680	0.510	1.0225	25,385	25,000
18	H	cfs	64,044	2.720	1.0225	178,119	178,000
19	J-1	cfs	133,427	0.676	1.0225	92,226	92,000
20	J-2	cfs	38,820	0.161	1.0225	6,391	6,000
21	J-3	cfs	258,008	0.383	1.0225	101,040	101,000
22	K-1	cfs	204,907	0.430	1.0225	90,092	90,000
23	K-2	cfs	66,776	2.130	1.0225	145,433	145,000
24	PC-30 Improvements (a)					0	0
25	Total Conveyance					1,112,810	1,110,000
System Investment Allocation							
26	LTCP Investment		54,692,000		0.00%	0	0
26	Total Allocated System Investment					9,232,410	9,230,000

(a) Allocated 18.30 percent of the Sewer Fund's share of the project funding (\$4,6734,645).

cfs - cubic feet per second
 Mcf - thousand cubic feet
 Mcf/day - thousand cubic feet per day
 lbs - pounds

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE_WH-3

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO BUCKS COUNTY

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$ Splitallo-25	(3) Number of Contract Units Splitallo-27	(4) Infiltration/ Inflow Capacity Allocation Factor Ref. A	(5) Allocated Investment \$ (2)*(3)*(4)	(6) Allocated Investment Rounded \$	Assets in Service Prior to FY 2007 Allocated Investment Rounded \$ Contribution Portion
<u>Treatment</u>								
1	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton - Capacity	Mcf/day	113.9074	6,556		746,777	747,000	679,000
2	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton - Volume	Mcf	6,5685	1,206,223		7,923,076	7,923,000	7,004,000
3	- Capacity	Mcf/day	469.3321	6,556		3,076,941	3,077,000	2,846,000
4	- SS	1,000 lbs	419.6317	13,619		5,714,964	5,715,000	5,053,000
5	- BOD	1,000 lbs	735.1643	13,455		9,891,636	9,892,000	8,575,000
6	Total Treatment					27,353,394	27,354,000	24,157,000
<u>Conveyance</u>								
7	Large Sewers	cfs	18,000	85,080	1.0225	1,565,897	1,566,000	1,566,000
8	Total Conveyance					1,565,897	1,566,000	1,566,000
9	LTCP Investment		54,692,000		4.5316%	2,478,441	2,478,000	0
10	Total Allocated System Investment					31,397,732	31,398,000	25,723,000

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNPALLO10 - DELCORA Allocated Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptallo-38

TABLE_WH-5

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO DELCORA

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$	(3) Number of Contract Units	(4) Infiltration/ Inflow Capacity Allocation Factor	(5) Allocated Investment \$	(6) Allocated Investment Rounded \$	Assets in Service Prior to FY 2011 Allocated Investment Rounded \$	Contribution Portion	
	<u>Treatment</u>		<u>Sptallo-25</u>	<u>Sptallo-27</u>		(2)*(3)*(4)				
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby									
1	Volume	Mcf	7.2587	2,439,840		17,710,067	17,710,000	25.00%	17,333,000	377,000
2	Capacity	Mcf/day	431.3150	13,392		5,776,170	5,776,000	25.04%	5,578,000	198,000
3	Suspended Solids	1,000 lbs	449.1083	19,487		8,751,773	8,752,000	10.93%	7,578,000	1,174,000
4	BOD	1,000 lbs	679.0674	21,771		14,783,976	14,784,000	17.65%	13,729,000	1,055,000
5	Total Treatment					47,021,986	47,022,000		44,218,000	2,804,000
6	<u>Conveyance</u>					0	0		0	
7	Total Conveyance					0	0		0	
			<u>System Investment/Cost</u>		<u>Allocation</u>					
8	LTCP Investment		54,692,000		9.44287%	5,164,495	5,164,000		2,000	
8	Total Allocated System Investment					52,186,481	52,186,000		44,220,000	

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNPALLO11 - Upper Darby Allocated Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptallo-39

Reference: A. 1.5% I/I allowance x 1.5 peak factor

TABLE_WH-11

**WASTEWATER SYSTEM INVESTMENT ALLOCATED TO UPPER DARBY
Test Year 2019**

Line No.	Cost Component	(1) Units	(2) Investment Per Unit \$	(3) Number of Contract Units	(4) Infiltration/ Inflow Capacity Allocation Factor	(5) Allocated Investment \$	(6) Allocated Investment Rounded \$
	<u>Treatment</u>		<u>Sptallo-25</u>	<u>Sptallo-27</u>	Ref. A	(2)*(3)*(4)	
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
1	Volume	Mcf	7.2587	846,145		6,141,913	6,142,000
2	Capacity	Mcf/day	431.3150	3,094		1,334,489	1,334,000
3	Suspended Solids	1,000 lbs	449.1083	7,453		3,346,980	3,347,000
4	BOD	1,000 lbs	679.0674	6,857		4,656,365	4,656,000
5	Total Treatment					15,479,747	15,479,000
6	<u>Conveyance</u>						
7	60th Street and Cobbs Creek Parkway	cfs	20,191	35,000	1.0225	722,585	723,000
8	Total Conveyance					722,585	723,000
			<u>System Investment/Cost</u>		<u>Allocation</u>		
9	LTCP Investment		54,692,000		0.00000%	0	0
10	Total Allocated System Investment					16,202,332	16,202,000

cfs - cubic feet per second
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

**TREATMENT PLANT AND CONVEYANCE SYSTEM
INVESTMENT ALLOCATED TO TOWNSHIPS**

Line No.	Cost Component	NEWPCP						SWPCP			SEWPCP	Total	
		Abington	Bensalem	Bucks County	Cheltenham	Lower Moreland	Lower Southampton	DELCORA	Lower Merion	Springfield (ex Wynd.)	Upper Darby		Springfield Ludingass Wyr
		Sptalalo-28	Sptalalo-36	Sptalalo-37	Sptalalo-29	Sptalalo-31	Sptalalo-32	Sptalalo-38	Sptalalo-30	Sptalalo-33	Sptalalo-39		Sptalalo-36
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
COLLECTION SYSTEM													
1	Sewers - Capacity	490,000	1,110,000	1,566,000	522,000	705,000	10,220,000	0	1,618,000	706,000	723,000	331,000	17,991,000
2	Pumping Stations - Capacity	0	0	0	0	0	0	0	190,000	62,000	0	0	252,000
3	LTCP Investment	319,000	0	2,478,000	1,328,000	196,000	527,000	5,164,000	0	434,000	0	0	10,446,000
4	Total Collection System	809,000	1,110,000	4,044,000	1,850,000	901,000	10,747,000	5,164,000	1,808,000	1,202,000	723,000	331,000	28,689,000
WATER POLLUTION CONTROL PLANTS													
Northeast Plant:													
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton													
5	- Capacity	96,000	118,000	747,000	0	59,000	159,000						1,179,000
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton													
6	Volume	1,457,000	2,003,000	7,923,000	4,397,000	627,000	2,338,000						18,745,000
7	Capacity	396,000	485,000	3,077,000	1,316,000	243,000	654,000						6,171,000
8	Suspended Solids	1,053,000	1,582,000	5,715,000	2,404,000	412,000	2,538,000						13,704,000
9	BOD	1,550,000	3,932,000	9,892,000	3,559,000	539,000	4,052,000						23,524,000
10	Subtotal	4,456,000	8,002,000	26,607,000	11,676,000	1,821,000	9,582,000						62,144,000
11	Total Northeast Plant	4,552,000	8,120,000	27,354,000	11,676,000	1,880,000	9,741,000						63,323,000
Southwest Plant:													
12	Retail - Capacity												
Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby													
13	Volume							17,710,000	5,244,000	1,149,000	6,142,000		30,245,000
14	Capacity							5,776,000	1,203,000	176,000	1,334,000		8,489,000
15	Suspended Solids							8,752,000	3,298,000	1,488,000	3,347,000		16,885,000
16	BOD							14,784,000	4,681,000	2,107,000	4,656,000		26,228,000
17	Total Southwest Plant							47,022,000	14,426,000	4,920,000	15,479,000		81,847,000
Southeast Plant:													
Retail and Springfield (Wyndmoor)													
18	Volume											423,000	423,000
19	Capacity											275,000	275,000
20	Suspended Solids											79,000	79,000
21	BOD											69,000	69,000
22	Total Southeast Plant											846,000	846,000
23	Total Water Pollution Control Plants	4,552,000	8,120,000	27,354,000	11,676,000	1,880,000	9,741,000	47,022,000	14,426,000	4,920,000	15,479,000	846,000	146,016,000
24	Total Investment	5,361,000	9,230,000	31,398,000	13,526,000	2,781,000	20,488,000	52,186,000	16,234,000	6,122,000	16,202,000	1,177,000	174,705,000
Total Investment Rounded from Sptalalo-29 thru Sptalalo-39.													
Total Collection System (above)													
Total Water Pollution Control Plants & Pumping (Difference)													
		809,000	1,110,000	4,044,000	1,850,000	901,000	10,747,000	5,164,000	1,618,000	1,140,000	723,000	331,000	28,437,000
		4,552,000	8,120,000	27,354,000	11,676,000	1,880,000	9,741,000	47,022,000	14,616,000	4,982,000	15,479,000	846,000	146,268,000

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
LANDALLO - Allocation Of Land Investment To Contract P.N. 135647.0100		February 11, 2018 9:00 a.m.					Sptalalo-41

ALLOCATION OF LAND INVESTMENT TO CONTRACT CUSTOMERS

(a) Total SWWPCP Investment	223,939,000	Sptalalo-24	Ln 17
(b) Total DELCORA Allocated Treatment Plant Investment	47,022,000	Sptalalo-40	Ln 17
(c) Total Upper Darby Allocated Treatment Plant Investment	15,479,000	Sptalalo-40	Ln 17
(c1) Total Lower Merion Allocated Treatment Plant Investment	14,426,000	Sptalalo-40	Ln 17
(d) Total SWWPCP Land Investment	702,000	Sptalalo-9	Ln 18
(e) Total SWWPCP Depreciable Plant Investment	223,237,000	(a) - (d)	

Lower Merion Allocated Land =	(c1)-{((e)/(a))*(c1)} =	45,000
DELCORA Allocated Land =	(b)-{((e)/(a))*(b)} =	147,000
Upper Darby Allocated Land =	(c)-{((e)/(a))*(c)} =	49,000

(a) Total NEWPCP Investment	266,454,000	Sptalalo-24	Ln 11
(b) Total Bensalem Allocated Treatment Plant Investment	8,120,000	Sptalalo-40	Ln 11
(c) Total Bucks County Allocated Treatment Plant Investment	27,354,000	Sptalalo-40	Ln 11
(d) Total Lower Southampton Allocated Treatment Plant Investment	9,741,000	Sptalalo-40	Ln 11
(e) Total NEWWPCP Land Investment	966,000	Sptalalo-6	Ln 21
(f) Total NEWPCP Depreciable Plant Investment	265,488,000	(a) - (e)	

Bensalem Allocated Land =	(b)-{((f)/(a))*(b)} =	29,000
Bucks County Allocated Land =	(c)-{((f)/(a))*(c)} =	99,000
Lower Southampton Allocated Land =	(d)-{((f)/(a))*(d)} =	35,000

	(1)	(2)	(3)	(4)
	Total	Total	Total	Total
	Land	Investment	Investment	Land
	Alloc to	Alloc to	Alloc to	Alloc to
	Contract	Contract	Contract	Contract
	Customers	Customers	Customers	Customers
	\$1,000	\$1,000	\$1,000	\$1,000
	Sptalalo-8	Sptalalo-24	Sptalalo-24	(a)
	Sptalalo-9			
	Sptalalo-10			
NEWPCP	966	266,454	63,323	67 (excl. Bensalem, Bucks County, and Lower Southampton above)
SWWPCP	702	223,939	81,847	16 (excl. DELCORA, Lower Merion and Upper Darby above)
SEWPCP	160	146,573	846	1
Total	1,828	636,966	146,016	84

(a) (1)*(3)/(2) - Bensalem, Bucks Co., Lower Southampton, DELCORA, Lower Merion, and Upper Darby above.

TOTAL DEPRECIABLE PUMPING AND TREATMENT INVESTMENT FOR CONTRACT CUSTOMERS

Contract Customer	(1)	(2)	(3)	(4)	(5)
	Total Treatment Investment \$1,000 <u>Sptallo-40</u>	Less Land \$1,000 <u>Sptallo-41</u>	Total Depreciable Treatment Investment \$1,000 (1)-(2)	Pumping Investment \$1,000 <u>Sptallo-40</u>	Total Depreciable P & T Investment \$1,000 (3)+(4)
Abington	4,552	17	4,535		4,535
Bensalem	8,120	29	8,091		8,091
Bucks County	27,354	99	27,255		27,255
Cheltenham	11,676	43	11,633		11,633
Lower Moreland	1,880	7	1,873		1,873
Lower Southampton	9,741	35	9,706		9,706
Total NEWPCP	63,323	230	63,093		63,093
DELCORA	47,022	147	46,875		46,875
Lower Merion	14,426	45	14,381	190	14,571
Springfield (excluding Wynd)	4,920	16	4,904	62	4,966
Upper Darby	15,479	49	15,430		15,430
Total SWWPCP	81,847	257	81,590	252	81,842
Springfield (including Wynd)	846	1	845		845
Total SEWPCP	846	1	845		845
Total Treatment	146,016	488	145,528	252	145,780

DELCORA CONTRIBUTED INVESTMENT

	(1)	(2)	(3)
	Total Investment	Allocated Land	Depreciable Investment
	\$1,000	\$1,000	\$1,000
	Sptalalo-40	Sptalalo-41	(1)-(2)
Collection- Capacity			
Treat & Pumping-			
Volume	17,333	58	17,275
Capacity	5,578	19	5,559
Suspended Solids	7,578	25	7,553
BOD	13,729	46	13,683
Total	44,218	147	44,070

DELCORA is no longer a contribution customer - This portion reflects the assets prior to 2011 to reflect their contribution

BENSALEM CONTRIBUTED INVESTMENT

	Total Investment	Allocated Land	Depreciable Investment
	\$1,000	\$1,000	\$1,000
	Sptalalo-40	Sptalalo-41	(1)-(2)
Collection- Capacity	1,110		1,110
Treat & Pumping-			
Volume	2,003	7	1,996
Capacity	603	2	601
Suspended Solids	1,582	6	1,576
BOD	3,932	14	3,918
Total	8,120	29	8,091

LOWER SOUTHAMPTON CONTRIBUTED INVESTMENT

	Total Investment	Allocated Land	Depreciable Investment
	\$1,000	\$1,000	\$1,000
	Sptalalo-40	Sptalalo-41	(1)-(2)
Collection- Capacity	2,839		2,839
Treat & Pumping-			
Volume	649	2	647
Capacity	226	1	225
Suspended Solids	705	3	702
BOD	1,126	4	1,122
Total	2,706	10	2,696

Lower Southampton is no longer a contribution customer - This portion reflects their remaining contribution (phased out over 18 years)

UPPER DARBY CONTRIBUTED INVESTMENT

	(1)	(2)	(3)
	Total Investment	Allocated Land	Depreciable Investment
	\$1,000	\$1,000	\$1,000
	Sptalalo-40	Sptalalo-41	(1)-(2)
Collection- Capacity	723		723
Treat & Pumping-			
Volume	6,142	19	6,123
Capacity	1,334	4	1,330
Suspended Solids	3,347	11	3,336
BOD	4,656	15	4,641
Total	15,479	49	15,430

BUCKS COUNTY CONTRIBUTED INVESTMENT

	Total Investment	Allocated Land	Depreciable Investment
	\$1,000	\$1,000	\$1,000
	Sptalalo-40	Sptalalo-41	(1)-(2)
Collection- Capacity	679		679
Treat & Pumping-			
Volume	7,004	30	6,974
Capacity	2,846	12	2,834
Suspended Solids	5,053	21	5,032
BOD	8,575	36	8,539
Total	23,478	99	23,379

BUCKS County is no longer a contribution customer - This portion reflects the assets prior to 2007 to reflect their contribution

LOWER MERION CONTRIBUTED INVESTMENT

	Total Investment	Allocated Land	Depreciable Investment
	\$1,000	\$1,000	\$1,000
	Sptalalo-40	Sptalalo-41	(1)-(2)
Collection- Capacity	1,618		1,618
Treat & Pumping-			
Volume	5,244	16	5,228
Capacity	1,203	4	1,199
Suspended Solids	3,298	10	3,288
BOD	4,681	15	4,666
Total	14,426	45	14,381

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TYDepr - Test Year Annual Depreciation Expense	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptalalo-44

TEST YEAR ANNUAL DEPRECIATION EXPENSE

Line No.	Cost Component	(1)	(2)	(3)	(4)	(5)	(6)
		Total Investment \$1,000 Sptalalo-24	Less Contributed Plant (a) \$1,000 Sptalalo-43	Land (d) \$1,000 Sptalalo-5 Sptalalo-41	Depreciable Plant \$1,000 (1)-(2)-(3)	Annual Depr Rate % Input	Annual Depreciation Expense \$1,000 (4)*(5)
COLLECTION SYSTEM							
1	Sewers - Capacity	1,494,948	6,969	1,816	1,486,163	2.00%	29,723
2	Pumping Stations - Capacity	30,239	190		30,049	2.50%	751
3	LTCP Investment	54,692			54,692	2.00%	1,094
4	Total Collection System	1,579,879	7,159	1,816 (b)	1,570,904		31,568
WATER POLLUTION CONTROL PLANTS							
Northeast Plant: Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
5	Volume (c)	67,307	9,617	244	57,446		
6	Capacity	31,988	3,660	116	28,212		
7	Suspended Solids	72,697	7,310	264	65,123		
8	BOD	94,462	13,579	342	80,541		
9	Total Northeast Plant	266,454	34,166	966	231,322	2.50%	5,783
Southwest Plant: Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby							
10	Volume	70,838	28,626	222	41,990		
11	Capacity	39,761	8,088	125	31,548		
12	Suspended Solids	59,757	14,177	187	45,393		
13	BOD	53,583	22,990	168	30,425		
14	Total Southwest Plant	223,939	73,881	702	149,356	2.50%	3,734
Southeast Plant: Retail and Springfield (Wyndmoor)							
15	Volume	46,556		51	46,505		
16	Capacity	49,385		54	49,331		
17	Suspended Solids	25,344		28	25,316		
18	BOD	25,288		27	25,261		
19	Total Southeast Plant	146,573		160	146,413	2.50%	3,660
20	Total Water Pollution Control Plants	636,966	108,047	1,828	527,091		13,177
21	Total Investment	2,216,845	115,206	3,644	2,097,995		44,745

(a) Contributed Plant includes Bensalem, Bucks County, Lower Southampton, DELCORA, Lower Merion, and Upper Darby.
 (b) All land backed out of Sewers, instead of Sewers and Pump Stations, because land only added into Sewers on SPLTALLO5, BOX 4.
 (c) Typical Volume calculation in Column (2) from numbers on Sptalalo-43 is: 1,996.0 (Bensalem) + 6,974.0 (Bucks Co.) + 647.4 (Lower Southampton) = 9,617.4 (excludes land)
 (d) Total land including contributed land.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TYInvest - Test Year Depreciable Plant Investment	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptalalo-45

AVERAGE TEST YEAR DEPRECIABLE PLANT INVESTMENT ALLOCABLE TO CONTRACT CUSTOMERS

Line No.	Cost Component	(1) Total Investment \$1,000 <u>Sptalalo-24</u>	(2) Investment Allocated to Contract Service \$1,000 <u>Sptalalo-40</u>	(3) Investment Allocated to Retail Service \$1,000 (1)-(2)	(4) Contract Customer Land excl. Contributed Plant (a) <u>Sptalalo-41</u> Prorated on (3)	(5) Contract Customer Depreciable Plant incl. Contributed Plant \$1,000 (2)-(4)	(6) Contributed Plant (incl. Land) <u>Sptalalo-43</u> <u>Sptalalo-44</u>	(7) Contract Customer Depreciable Plant \$1,000 (5)-(6)	(8) Depreciation Rate	(9) Annual Depreciation Expense \$1,000 (7) x (8)
COLLECTION SYSTEM										
1	Sewers - Capacity	1,494,948	17,991	1,476,957		17,991	6,969	11,022	2.00%	220
2	Pumping Stations - Capacity	30,239	252	29,987		252	190	62	2.50%	2
3	LTCP Investment	54,692	10,446	44,246		10,446	0	10,446	2.00%	209
4	Total Collection System	1,579,879	28,689	1,551,190		28,689	7,159	21,530		431
WATER POLLUTION CONTROL PLANTS										
Northeast Plant: Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton										
5	Volume (b)	67,307	18,745	48,562	16	18,729	9,656	9,073		
6	Capacity	31,988	7,350	24,638	8	7,342	3,675	3,667		
7	Suspended Solids	72,697	13,704	58,993	19	13,685	7,340	6,345		
8	BOD	94,462	23,524	70,938	24	23,500	13,633	9,867		
9	Total Northeast Plant	266,454	63,323	203,131	67	63,256	34,304	28,952	2.50%	724
Southwest Plant: Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby										
10	Volume	70,838	30,245	40,593	5	30,240	28,719	1,521		
11	Capacity	39,761	8,489	31,272	4	8,485	8,115	370		
12	Suspended Solids	59,757	16,885	42,872	5	16,880	14,223	2,657		
13	BOD	53,583	26,228	27,355	2	26,226	23,066	3,160		
14	Total Southwest Plant	223,939	81,847	142,092	16	81,831	74,123	7,708	2.50%	193
Southeast Plant: Retail and Springfield (Wyndmoor)										
15	Volume	46,556	423	46,133	1	422		422		
16	Capacity	49,385	275	49,110		275		275		
17	Suspended Solids	25,344	79	25,265		79		79		
18	BOD	25,288	69	25,219		69		69		
19	Total Southeast Plant	146,573	846	145,727	1	845		845	2.50%	21
20	Total Water Pollution Control Plants	636,966	146,016	490,950	84	145,932	108,427	37,505		938
21	Total Investment	2,216,845	174,705	2,042,140	84	174,621	115,586	59,035		1,369

(a) Contributed Plant includes Bensalem, Bucks County, Lower Southampton, DELCORA, Lower Merion, and Upper Darby.

(b) Typical Volume calculation in Column (6) from numbers on Sptalalo-43 is: 2,003.0 (Bensalem) + 7,004.0 (Bucks Co.) + 649.4 (Lower Southampton) = 9,656.4

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLInvest - Depreciable Plant Invest Alloc To Retail Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Sptallo-46

**DETERMINATION OF DEPRECIABLE PLANT INVESTMENT
ALLOCABLE TO RETAIL SERVICE
TEST YEAR 2019**

Line No.	Cost Component	(1) Total Depreciable Plant \$1,000 <u>Sptallo-44</u>	(2) Contract Customers Depreciable Plant \$1,000 <u>Sptallo-45</u>	(3) Net Depreciable Plant Allocable to Retail \$1,000 (1)-(2)	(4) Annual Depr Rate %	(5) Net Depreciation Allocable to Retail \$1,000
COLLECTION SYSTEM						
1	Sewers - Capacity	1,486,163	11,022	1,475,141	2.00%	29,503
2	Pumping Stations - Capacity	30,049	62	29,987	2.50%	750
3	LTCP Investment	54,692	10,446	44,246	2.00%	885
3	Total Collection System	1,570,904	21,530	1,549,374		31,137
WATER POLLUTION CONTROL PLANTS						
Northeast Plant:						
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
4	Volume	57,446	9,073	48,373		
5	Capacity	28,212	3,667	24,545		
6	Suspended Solids	65,123	6,345	58,778		
7	BOD	80,541	9,867	70,674		
8	Total Northeast Plant	231,322	28,952	202,370	2.50%	5,059
Southwest Plant:						
Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
9	Volume	41,990	1,521	40,469		
10	Capacity	31,548	370	31,178		
11	Suspended Solids	45,393	2,657	42,736		
12	BOD	30,425	3,160	27,265		
13	Total Southwest Plant	149,356	7,708	141,648	2.50%	3,541
Southeast Plant:						
Retail and Springfield (Wyndmoor)						
14	Volume	46,505	422	46,083		
15	Capacity	49,331	275	49,056		
16	Suspended Solids	25,316	79	25,237		
17	BOD	25,261	69	25,192		
18	Total Southeast Plant	146,413	845	145,568	2.50%	3,639
19	Total Water Pollution Control Plants	527,091	37,505	489,586		12,240
20	Total Investment	2,097,995	59,035	2,038,960		43,377

SCOS17_19.XLS

SOMALLO

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SOMIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-1

The "Somallo" worksheet allocates Sewer utility operation and maintenance expense to functional cost components. It also allocates O&M expense to the individual contract customers.

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File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TYO&M - Test Year O&M Expenses	P.N. 135647.0100	February 11, 2018 9:39 a.m.					Somalio-2

Ref: Direct O&M - 3, Direct O&M - 6, Other Dept O&M - 3
 Source: Financial Planning Model

Summary of Combined
 O&M Expense Projections
 (Liquidated Encumbrances Have Been Deducted)

	Prior to FY 2017 Not Included		Summary of Combined O&M Expense Projections							Future Years Beyond Projection Period							
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Operations Division:																	
Class 100	0	0	74,937,545	80,208,101	82,658,304	85,578,703	88,586,094	91,683,697	94,433,798	97,266,752	100,184,984	103,190,994	106,286,354	109,474,714	112,758,806	116,141,440	
Class 200	0	0	73,826,053	72,471,198	75,240,673	77,119,094	79,675,088	82,315,660	85,043,608	87,861,825	90,773,299	93,781,117	96,888,468	100,098,650	103,415,068	106,841,240	
Class 300	0	0	30,998,816	31,712,751	33,311,530	34,104,945	34,364,528	34,626,188	34,889,948	35,155,829	35,423,854	35,694,047	35,966,430	36,241,027	36,517,863	36,796,960	
Class 400	0	0	964,973	1,588,590	1,609,242	1,630,162	1,651,354	1,672,821	1,694,568	1,716,597	1,738,913	1,761,519	1,784,419	1,807,616	1,831,115	1,854,920	
Total	0	0	180,727,387	185,980,641	192,819,749	198,432,904	204,277,064	210,298,367	216,061,922	222,001,003	228,121,051	234,427,676	240,925,671	247,622,008	254,522,852	261,634,560	
Other Department Expenses:																	
WRB	0	0	16,634,523	15,049,769	15,444,064	15,893,912	16,357,792	16,836,150	17,329,444	17,838,146	18,362,744	18,903,743	19,461,661	20,037,035	20,630,419	21,242,582	
Law Department	0	0	2,572,018	2,371,102	2,432,335	2,505,994	2,581,895	2,660,108	2,740,703	2,823,752	2,909,330	2,997,516	3,088,387	3,182,027	3,278,519	3,377,952	
Public Properties	0	0	4,042,633	4,256,817	4,327,445	4,396,538	4,465,208	4,533,727	4,602,191	4,670,521	4,738,721	4,806,791	4,874,731	4,942,541	5,010,221	5,077,771	
Water Dept. (Xfer to Gen'l. Fund)	0	0	12,097,064	6,430,814	6,591,584	6,756,374	6,925,283	7,098,415	7,275,875	7,457,772	7,644,217	7,835,322	8,031,205	8,231,985	8,437,785	8,648,730	
Total	0	0	35,346,238	28,108,501	28,795,428	29,552,818	30,330,179	31,213,401	32,059,936	32,930,732	33,826,504	34,747,987	35,695,939	36,671,141	37,674,397	38,706,535	
Human Resources:																	
Class 100	0	0	7,948,131	9,403,454	9,638,541	9,927,697	10,225,528	10,532,294	10,848,262	11,173,710	11,508,922	11,854,189	12,209,815	12,576,109	12,953,393	13,341,994	
Class 200	0	0	3,164,203	3,767,868	3,938,360	4,072,310	4,211,238	4,354,886	4,503,414	4,656,988	4,815,778	4,979,962	5,149,722	5,325,247	5,506,734	5,694,583	
Class 300	0	0	566,541	574,099	583,246	586,169	589,165	592,175	595,196	598,231	601,279	604,340	607,413	610,500	613,600	616,714	
Class 400	0	0	383,911	374,277	384,072	389,065	394,122	399,246	404,436	409,694	415,020	420,415	425,881	431,417	437,025		
Total	0	0	12,462,786	14,119,699	14,539,290	14,970,247	15,414,996	15,873,477	16,346,119	16,833,366	17,335,673	17,853,511	18,387,365	18,937,737	19,505,144	20,090,117	
Finance and Administration:																	
Class 100	0	0	2,725,589	2,700,221	2,767,726	2,850,758	2,936,281	3,024,369	3,115,100	3,208,553	3,304,810	3,403,954	3,506,073	3,611,255	3,719,593	3,831,181	
Class 200	0	0	7,160,502	3,101,764	3,241,868	3,352,103	3,466,190	3,584,146	3,706,101	3,832,191	3,962,556	4,097,342	4,236,697	4,380,777	4,529,742	4,683,757	
Class 2xx	0	0	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	
Class 300	0	0	51,498	6,116	6,213	6,244	6,275	6,307	6,339	6,370	6,402	6,435	6,467	6,499	6,532	6,564	
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	24,937,590	25,808,100	31,015,808	31,209,106	31,408,746	31,614,822	31,827,540	32,047,115	32,273,769	32,507,731	32,749,237	32,998,531	33,255,866	33,521,502	
Planning & Engineering																	
Class 100	0	0	14,653,376	16,132,387	16,674,497	17,317,768	17,910,721	18,448,002	19,001,572	19,571,404	20,158,487	20,762,821	21,385,926	22,027,334	22,688,594	23,369,271	
Class 200	0	0	19,963,263	18,179,549	18,797,653	19,436,773	20,097,624	20,780,943	21,487,495	22,218,070	22,973,484	23,754,583	24,562,239	25,397,355	26,260,865	27,153,734	
Class 300	0	0	1,275,625	1,161,973	1,167,783	1,173,621	1,179,490	1,185,387	1,191,314	1,197,271	1,203,257	1,209,273	1,215,320	1,221,396	1,227,503	1,233,641	
Class 400	0	0	370,595	279,352	282,983	286,662	290,388	294,164	297,988	301,861	305,786	309,761	313,788	317,867	321,999	326,185	
Total	0	0	36,262,859	35,753,260	36,922,916	38,214,824	39,478,222	40,708,496	41,978,369	43,288,606	44,641,013	46,036,438	47,477,272	48,963,951	50,498,961	52,082,831	
Information Science & Technology																	
Class 100	0	0	5,893,231	6,395,691	6,555,584	6,752,251	6,954,819	7,163,463	7,378,367	7,599,718	7,827,710	8,062,541	8,304,417	8,553,550	8,810,156	9,074,461	
Class 200	0	0	12,605,190	14,639,303	15,137,040	15,651,699	16,183,857	16,734,108	17,303,068	17,891,372	18,499,679	19,128,668	19,779,042	20,451,530	21,166,882	21,918,876	
Class 300	0	0	1,634,654	1,726,775	1,735,409	1,744,086	1,752,806	1,761,570	1,770,378	1,779,230	1,788,126	1,797,067	1,806,052	1,815,083	1,824,158	1,833,279	
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	20,133,075	22,761,770	23,428,032	24,148,036	24,891,482	25,659,142	26,451,813	27,270,320	28,115,515	28,988,276	29,889,512	30,820,162	31,781,196	32,773,615	
Public Affairs:																	
Class 100	0	0	2,420,693	4,694,141	4,811,495	4,955,839	5,104,515	5,257,650	5,415,380	5,577,841	5,745,176	5,917,531	6,095,057	6,277,909	6,466,246	6,660,234	
Class 200	0	0	6,133,204	6,429,445	6,719,209	6,947,618	7,183,360	7,427,076	7,679,037	7,939,520	8,208,815	8,487,220	8,775,042	9,072,600	9,380,225	9,698,256	
Class 300	0	0	226,042	267,439	271,644	273,000	274,337	275,680	277,029	278,384	279,745	281,111	282,484	283,862	285,247	286,637	
Class 400	0	0	681	20,793	21,063	21,337	21,615	21,896	22,180	22,468	22,761	23,056	23,356	23,660	23,967	24,279	
Total	0	0	8,780,620	11,411,818	11,823,411	12,197,795	12,583,826	12,982,302	13,393,626	13,818,214	14,256,497	14,708,919	15,175,939	15,658,031	16,155,685	16,669,406	
Total Water Department:																	
Class 100	0	0	108,578,565	119,533,996	123,106,146	127,383,016	131,717,957	136,109,476	140,192,480	144,397,979	148,730,089	153,192,031	157,787,642	162,520,872	167,396,788	172,418,581	
Class 200	0	0	122,852,416	118,589,128	123,074,804	126,579,598	130,817,357	135,196,819	139,722,723	144,399,966	149,233,611	154,228,890	159,391,210	164,726,159	170,239,515	175,937,246	
Class 300	0	0	34,753,177	35,449,152	37,075,825	37,888,065	38,166,602	38,447,308	38,730,204	39,015,315	39,302,663	39,592,272	39,884,165	40,178,367	40,474,902	40,773,795	
Class 400	0	0	2,120,160	2,263,012	2,292,431	2,322,232	2,352,421	2,383,003	2,413,982	2,445,364	2,477,153	2,509,356	2,541,978	2,575,024	2,608,499	2,642,409	
Class 500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pension & Benefits Including Capital (270)	0	0	120,835,841	128,520,554	134,080,450	139,285,293	143,403,082	147,677,135	152,473,216	157,460,543	162,646,195	168,038,618	173,647,635	179,482,470	185,552,763	191,869,590	
Indemnities	0	0	6,952,193	4,640,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	5,140,505	
Subtotal	0	0	396,092,352	408,996,346	424,770,160	438,598,709	451,597,923	464,954,244	478,673,110	492,859,672	507,530,216	522,701,672	538,393,135	554,623,396	571,412,9		

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WO&M - Test Year O&M Expenses - Water	P.N. 135647.0100	February 11, 2018 9:39 a.m.					Somalo-3

Ref: Direct O&M - 4, Direct O&M - 6, Other Dept O&M - 4
 Source: Financial Planning Model

O & M Expense Projections
 (Liquidated Encumbrances Have Been Deducted)

	Prior to FY 2017 Not Included		O & M Expense Projections							Future Years Beyond Projection Period Not Provided						
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operations Division:																
Class 100	0	0	31,522,974	33,740,069	34,583,571	35,621,078	36,689,710	37,790,401	38,924,113	40,091,837	41,294,392	42,533,430	43,809,433	45,123,716	46,477,427	47,871,730
Class 200	0	0	19,173,476	18,906,213	19,462,509	19,820,345	20,445,375	21,090,199	21,755,451	22,441,782	23,149,868	23,880,409	24,634,122	25,411,751	26,214,061	27,041,848
Class 300	0	0	19,881,355	20,913,740	22,172,564	22,816,542	22,999,775	23,184,596	23,371,022	23,559,074	23,748,768	23,940,127	24,133,166	24,327,910	24,524,374	24,722,581
Class 400	0	0	397,826	654,922	663,436	672,060	680,797	689,647	698,613	707,695	716,895	726,214	735,655	745,219	754,906	764,720
Total	0	0	70,975,631	74,214,944	76,882,080	78,930,025	80,815,657	82,754,843	84,749,198	86,800,387	88,910,123	91,080,179	93,312,375	95,608,595	97,970,768	100,400,889
Other Department Expenses:																
WRB	0	0	5,555,930	5,026,623	5,158,317	5,308,566	5,463,503	5,623,274	5,788,034	5,957,940	6,133,156	6,313,850	6,500,195	6,692,370	6,890,560	7,094,956
Law Department	0	0	951,648	877,307	899,964	927,218	955,300	984,240	1,014,060	1,044,788	1,076,452	1,109,082	1,142,703	1,177,350	1,213,052	1,249,843
Public Properties	0	0	1,455,348	1,532,454	1,557,880	1,582,754	1,607,475	1,662,742	1,697,009	1,731,982	1,767,677	1,804,106	1,841,287	1,879,234	1,917,963	1,957,490
Water Dept. (Xfer to Gen'l. Fund)	0	0	4,354,943	2,315,093	2,372,970	2,432,295	2,493,102	2,555,429	2,619,315	2,684,798	2,751,918	2,820,716	2,891,234	2,963,515	3,037,603	3,113,543
Total	0	0	12,317,869	9,751,477	9,989,131	10,250,833	10,519,380	10,825,685	11,118,418	11,419,508	11,729,203	12,047,754	12,375,419	12,712,469	13,059,178	13,418,832
Human Resources:																
Class 100	0	0	2,463,921	2,915,071	2,987,948	3,077,586	3,169,914	3,265,011	3,362,961	3,463,850	3,567,766	3,674,799	3,785,043	3,898,594	4,015,552	4,136,018
Class 200	0	0	994,924	1,189,843	1,242,765	1,284,938	1,327,765	1,372,019	1,417,749	1,463,004	1,513,835	1,564,296	1,616,440	1,670,326	1,726,009	1,783,551
Class 300	0	0	178,138	181,293	184,045	184,954	185,758	186,566	187,378	188,193	189,011	189,834	190,661	191,490	192,325	193,162
Class 400	0	0	243,012	116,026	117,534	119,062	120,610	122,178	123,766	125,375	127,005	128,656	130,329	132,023	133,739	135,478
Total	0	0	3,879,995	4,402,233	4,532,293	4,666,540	4,804,047	4,945,774	5,091,854	5,242,422	5,397,618	5,557,585	5,722,473	5,892,433	6,067,624	6,248,209
Finance and Administration:																
Class 100	0	0	1,035,724	1,026,084	1,051,736	1,083,288	1,115,787	1,149,260	1,183,738	1,219,250	1,255,828	1,293,503	1,332,308	1,372,277	1,413,445	1,455,849
Class 200	0	0	2,755,887	1,198,403	1,251,705	1,294,181	1,337,317	1,381,889	1,427,949	1,475,544	1,524,726	1,575,550	1,628,070	1,682,342	1,738,426	1,796,382
Class 300	0	0	19,820	2,363	2,399	2,411	2,421	2,432	2,443	2,453	2,464	2,474	2,485	2,495	2,507	2,517
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	3,811,431	2,226,849	2,305,840	2,379,880	2,455,525	2,533,581	2,614,129	2,697,247	2,783,018	2,871,528	2,962,863	3,057,115	3,154,378	3,254,749
Planning & Engineering																
Class 100	0	0	4,088,280	4,554,146	4,705,244	4,884,782	5,051,025	5,202,545	5,358,656	5,519,339	5,684,923	5,855,358	6,031,078	6,211,964	6,398,442	6,590,400
Class 200	0	0	6,531,203	5,082,237	5,308,286	5,488,419	5,671,347	5,860,374	6,055,703	6,257,547	6,466,122	6,681,657	6,904,384	7,134,545	7,372,388	7,618,173
Class 300	0	0	457,061	356,391	361,803	363,590	365,171	366,759	368,353	369,956	371,565	373,183	374,807	376,439	378,078	379,725
Class 400	0	0	143,754	108,275	109,682	111,107	112,552	114,016	115,497	116,998	118,519	120,060	121,622	123,203	124,804	126,426
Total	0	0	11,220,298	10,101,050	10,485,015	10,847,897	11,200,095	11,543,694	11,898,209	12,263,860	12,641,129	13,030,258	13,431,890	13,846,151	14,273,711	14,714,725
Information Science & Technology																
Class 100	0	0	3,427,452	3,719,679	3,812,671	3,927,051	4,044,863	4,166,209	4,291,195	4,419,931	4,552,529	4,689,104	4,829,778	4,974,671	5,123,911	5,277,628
Class 200	0	0	6,217,295	7,220,587	7,466,087	7,719,934	7,982,412	8,253,814	8,534,444	8,824,615	9,124,052	9,434,890	9,755,676	10,087,369	10,430,339	10,784,971
Class 300	0	0	856,398	904,660	909,184	913,729	918,298	922,890	927,504	932,142	936,802	941,486	946,194	950,925	955,679	960,458
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	10,501,145	11,844,926	12,187,942	12,560,714	12,945,573	13,342,913	13,753,143	14,176,688	14,613,983	15,065,480	15,531,648	16,012,965	16,509,929	17,023,057
Public Affairs:																
Class 100	0	0	1,210,347	2,347,071	2,405,747	2,477,920	2,552,257	2,628,825	2,707,690	2,788,920	2,872,588	2,958,766	3,047,529	3,138,955	3,233,123	3,330,117
Class 200	0	0	2,911,014	3,061,692	3,197,870	3,306,389	3,416,590	3,530,465	3,648,138	3,769,734	3,895,387	4,025,231	4,159,409	4,298,065	4,441,348	4,589,416
Class 300	0	0	114,187	135,519	137,577	138,256	138,857	139,461	140,068	140,677	141,289	141,904	142,521	143,142	143,765	144,391
Class 400	0	0	341	10,397	10,532	10,669	10,807	10,948	11,090	11,234	11,380	11,528	11,678	11,830	11,984	12,139
Total	0	0	4,235,889	5,554,679	5,751,726	5,933,234	6,118,511	6,309,700	6,506,986	6,710,565	6,920,644	7,137,429	7,361,137	7,591,991	7,830,220	8,076,064
Total Water Department:																
Class 100	0	0	43,748,698	48,302,120	49,546,917	51,071,705	52,623,556	54,202,251	55,828,353	57,503,147	59,228,226	61,004,960	62,835,169	64,720,177	66,661,900	68,661,762
Class 200	0	0	38,583,799	36,658,976	37,929,223	38,914,206	40,180,806	41,488,761	42,839,433	44,234,225	45,674,391	47,162,033	48,698,101	50,284,396	51,922,570	53,614,342
Class 300	0	0	21,506,959	22,493,965	23,767,572	24,419,481	24,610,280	24,802,704	24,996,768	25,192,494	25,389,899	25,589,007	25,789,833	25,992,402	26,196,728	26,402,836
Class 400	0	0	784,933	889,620	901,184	912,898	924,766	936,789	948,966	961,302	973,799	986,458	999,284	1,012,275	1,025,433	1,038,763
Class 500	0	0														
Pension & Benefits Including Capital (270)	0	0	47,760,776	51,925,722	53,997,347	55,919,529	57,408,522	58,964,919	60,880,552	62,872,491	64,943,531	67,097,125	69,337,448	71,667,963	74,092,435	76,615,417
Indemnities	0	0	2,572,311	1,716,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987	1,901,987
Subtotal	0	0	154,957,476	161,987,390	168,044,230	173,139,806	177,649,917	182,297,411	187,396,059	192,665,646	198,112,033	203,741,571	209,561,822	215,579,200	221,801,053	228,235,106
Other Department Expenses	0	0	12,317,869	9,751,477	9,989,131	10,250,833	10,519,380	10,825,685	11,118,418	11,419,508	11,729,203	12,047,754	12,375,419	12,712,469	13,059,178	13,418,832
Total	0	0	167,275,345	171,738,867	178,033,361	183,390,638	188,169,297	193,123,096	198,514,477	204,085,154	209,841,236	215,789,325	221,937,241	228,291,669	234,860,231	241,650,938

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SO&M - Test Year O&M Expenses - Sewer	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somal-4

Ref: Direct O&M - 5, Direct O&M - 6, Other Dept O&M - 5
 Source: Financial Planning Model

Summary of Sewer Utility
 O & M Expense Projections
 (Liquidated Encumbrances Have Not Been Deducted Yet)

	Prior to FY 2017 Not Included									Future Years Beyond Projection Period Not Provided						
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operations Division:																
Class 100	0	0	43,414,571	46,468,032	48,074,733	49,957,625	51,896,384	53,893,296	55,509,685	57,174,915	58,890,392	60,657,564	62,476,921	64,350,998	66,281,379	68,269,690
Class 200	0	0	54,652,578	53,564,985	55,778,165	57,298,749	59,229,713	61,225,461	63,288,158	65,420,044	67,623,431	69,900,708	72,254,347	74,686,900	77,201,007	79,799,393
Class 300	0	0	11,117,461	10,799,011	11,138,967	11,288,403	11,364,753	11,441,593	11,518,926	11,596,755	11,675,086	11,753,920	11,833,264	11,913,118	11,993,489	12,074,379
Class 400	0	0	567,147	933,668	945,806	958,102	970,557	983,174	995,955	1,008,902	1,022,018	1,035,305	1,048,764	1,062,397	1,076,209	1,090,200
Total	0	0	109,751,757	111,765,696	115,937,670	119,502,879	123,461,408	127,543,524	131,312,724	135,200,616	139,210,928	143,347,497	147,613,295	152,013,413	156,552,084	161,233,661
Other Department Expenses:																
WRB	0	0	11,078,593	10,023,146	10,285,747	10,585,346	10,894,289	11,212,876	11,541,410	11,880,206	12,229,588	12,589,893	12,961,466	13,344,665	13,739,859	14,147,426
Law Department	0	0	1,620,370	1,493,795	1,532,371	1,578,776	1,626,595	1,675,868	1,726,643	1,778,964	1,832,878	1,888,434	1,945,684	2,004,677	2,065,467	2,128,109
Public Properties	0	0	2,587,285	2,724,363	2,769,565	2,813,784	2,857,733	2,955,985	3,016,905	3,079,080	3,142,536	3,207,301	3,273,399	3,340,860	3,409,711	3,479,981
Mayor's Office of Transportation & Utilities	0	0	123,216	768,515	792,797	818,910	845,887	873,753	902,540	932,279	963,001	994,738	1,027,523	1,061,393	1,096,382	1,132,528
Fleet Management	0	0	4,963,605	5,233,646	5,321,115	5,419,478	5,520,597	5,624,561	5,731,456	5,841,376	5,954,411	6,070,662	6,190,226	6,313,209	6,439,715	6,569,854
Procurement	0	0	54,701	51,014	52,289	53,858	55,474	57,138	58,853	60,618	62,437	64,309	66,239	68,226	70,273	72,381
Water Dept. (Xfer to Gen'l. Fund)	0	0	7,742,121	4,115,721	4,218,614	4,324,079	4,432,181	4,542,986	4,656,560	4,772,974	4,892,299	5,014,606	5,139,971	5,268,470	5,400,182	5,535,187
Total	0	0	28,169,891	24,410,200	24,972,498	25,594,231	26,232,756	26,943,168	27,634,367	28,345,497	29,077,150	29,829,942	30,604,509	31,401,500	32,221,589	33,065,467
Human Resources:																
Class 100	0	0	5,484,210	6,488,383	6,650,593	6,850,111	7,055,614	7,267,283	7,485,301	7,709,860	7,941,156	8,179,390	8,424,772	8,677,515	8,937,841	9,205,976
Class 200	0	0	2,578,025	2,578,025	2,695,595	2,787,372	2,883,473	2,982,868	3,085,665	3,191,984	3,301,943	3,415,666	3,533,281	3,654,922	3,780,725	3,910,832
Class 300	0	0	388,403	392,806	399,201	401,214	403,407	405,609	407,818	410,039	412,268	414,505	416,753	419,010	421,276	423,552
Class 400	0	0	540,899	258,251	261,609	265,010	268,455	271,944	275,480	279,061	282,689	286,364	290,086	293,858	297,678	301,547
Total	0	0	8,582,792	9,717,466	10,006,997	10,303,707	10,610,949	10,927,703	11,254,265	11,590,944	11,938,055	12,295,925	12,664,892	13,045,304	13,437,519	13,841,908
Finance and Administration:																
Class 100	0	0	1,689,865	1,674,137	1,715,990	1,767,470	1,820,494	1,875,109	1,931,362	1,989,303	2,048,982	2,110,451	2,173,765	2,238,978	2,306,148	2,375,332
Class 200	0	0	4,404,615	1,903,361	1,990,163	2,057,922	2,128,873	2,202,256	2,278,152	2,356,647	2,437,830	2,521,792	2,608,627	2,698,435	2,791,316	2,887,374
Class 2xx (SMIP & GARP)	0	0	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Class 300	0	0	31,678	3,753	3,814	3,833	3,854	3,875	3,896	3,917	3,939	3,960	3,982	4,004	4,025	4,047
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	21,126,158	23,581,251	28,709,967	28,829,225	28,953,221	29,081,240	29,213,410	29,349,868	29,490,751	29,636,203	29,786,374	29,941,417	30,101,488	30,266,753
Planning & Engineering																
Class 100	0	0	10,565,096	11,578,241	11,969,253	12,432,986	12,859,696	13,245,457	13,642,916	14,052,045	14,473,564	14,907,463	15,354,848	15,815,370	16,290,152	16,778,871
Class 200	0	0	13,432,060	10,328,268	10,799,285	11,166,970	11,551,978	11,950,175	12,362,013	12,787,953	13,228,478	13,684,083	14,155,283	14,642,609	15,146,611	15,667,854
Class 300	0	0	818,564	629,432	639,678	642,905	646,418	649,945	653,488	657,045	660,617	664,203	667,804	671,420	675,052	678,698
Class 400	0	0	226,841	171,077	173,301	175,555	177,836	180,148	182,491	184,863	187,267	189,701	192,166	194,664	197,195	199,759
Total	0	0	25,042,561	22,707,017	23,581,517	24,418,415	25,235,928	26,025,725	26,840,908	27,681,907	28,549,925	29,445,450	30,370,101	31,324,063	32,309,010	33,325,183
Information Science & Technology																
Class 100	0	0	2,465,779	2,676,012	2,742,913	2,825,200	2,909,956	2,997,254	3,087,172	3,179,787	3,275,181	3,373,437	3,474,639	3,578,879	3,686,245	3,796,833
Class 200	0	0	6,387,895	7,418,716	7,670,953	7,931,765	8,201,445	8,480,294	8,768,624	9,066,757	9,375,027	9,693,778	10,023,366	10,364,161	10,716,543	11,080,905
Class 300	0	0	778,256	822,115	826,225	830,357	834,508	838,680	842,874	847,088	851,324	855,581	859,858	864,158	868,479	872,821
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	9,631,930	10,916,844	11,240,090	11,587,322	11,945,909	12,316,229	12,698,670	13,093,632	13,501,532	13,922,796	14,357,864	14,807,197	15,271,267	15,750,558
Public Affairs:																
Class 100	0	0	1,210,346	2,347,070	2,405,748	2,477,919	2,552,258	2,628,825	2,707,690	2,788,921	2,872,588	2,958,765	3,047,528	3,138,954	3,233,123	3,330,117
Class 200	0	0	3,222,190	3,367,753	3,521,338	3,641,229	3,766,770	3,896,611	4,030,899	4,169,786	4,313,428	4,461,989	4,615,633	4,774,536	4,938,877	5,108,840
Class 300	0	0	111,855	131,920	134,068	134,744	135,480	136,219	136,961	137,708	138,456	139,208	139,962	140,720	141,481	142,246
Class 400	0	0	340	10,396	10,531	10,668	10,808	10,948	11,090	11,234	11,381	11,528	11,678	11,830	11,983	12,140
Total	0	0	4,544,731	5,857,139	6,071,685	6,264,561	6,465,315	6,672,603	6,886,640	7,107,649	7,335,853	7,571,490	7,814,802	8,066,040	8,325,465	8,593,342

Total Sewer Department:																	
Class 100	0	0	64,829,867	71,231,876	73,559,229	76,311,311	79,094,401	81,907,225	84,364,127	86,894,832	89,501,863	92,187,071	94,952,473	97,800,695	100,734,888	103,756,819	
Class 200 (including 2xx)	0	0	99,268,617	99,161,109	107,455,498	109,884,007	112,762,252	115,737,665	118,813,510	121,993,171	125,280,137	128,678,014	132,190,538	135,821,562	139,575,078	143,455,197	
Class 300	0	0	13,246,218	12,779,037	13,141,952	13,301,457	13,388,421	13,475,921	13,563,964	13,652,552	13,741,689	13,831,377	13,921,624	14,012,429	14,103,802	14,195,743	
Class 400	0	0	1,335,227	1,373,392	1,391,247	1,409,334	1,427,655	1,446,214	1,465,016	1,484,062	1,503,354	1,522,898	1,542,694	1,562,749	1,583,066	1,603,646	
Class 500																	
Pension & Benefits Including Capital (270)	0	0	73,075,065	76,594,832	80,083,103	83,365,764	85,994,560	88,712,216	91,592,664	94,588,052	97,702,664	100,941,493	104,310,187	107,814,507	111,460,328	115,254,173	
Indemnities	0	0	4,579,882	3,173,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	3,488,518	
Subtotal Excluding Interdepartment	0	0	256,334,876	264,313,764	279,119,547	287,760,391	296,155,807	304,767,758	313,287,799	322,101,186	331,218,225	340,649,371	350,406,033	360,500,458	370,945,678	381,754,096	
Other Department Expenses	0	0	28,169,891	24,410,200	24,972,498	25,594,231	26,232,756	26,943,168	27,634,367	28,345,497	29,077,150	29,829,942	30,604,509	31,401,500	32,221,589	33,065,467	
Total	0	0	284,504,767	288,723,963	304,092,044	313,354,622	322,388,564	331,710,926	340,922,166	350,446,683	360,295,375	370,479,313	381,010,541	391,901,958	403,167,267	414,819,563	

SPLIT OF TOTAL PENSION & BENEFITS	LINKS	0															

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Human Resources	0	0	5,306,963	5,646,061	5,867,286	6,072,089	6,231,487	6,400,017	6,607,515	6,823,284	7,047,607	7,280,872	7,523,511	7,775,924	8,038,487	8,311,730	
Finance and Administration	0	0	1,635,249	1,456,800	1,513,881	1,566,724	1,607,852	1,651,337	1,704,875	1,760,548	1,818,428	1,878,615	1,941,221	2,006,349	2,074,096	2,144,598	
Planning & Engineering	0	0	10,223,637	10,075,152	10,559,515	11,020,872	11,357,627	11,664,765	12,043,038	12,436,166	12,844,981	13,269,856	13,712,224	14,172,157	14,650,986	15,149,013	
Information Science & Technology	0	0	2,386,086	2,328,612	2,419,853	2,504,320	2,570,060	2,639,567	2,725,146	2,814,136	2,906,653	3,002,860	3,102,931	3,207,034	3,315,324	3,428,018	
Operations	0	0	42,011,432	40,435,547	42,412,494	44,283,538	45,834,659	47,461,755	49,000,174	50,600,229	52,263,974	53,994,240	55,793,293	57,664,947	59,611,939	61,638,138	
Public Affairs	0	0	1,171,228	2,042,373	2,122,399	2,196,482	2,254,143	2,315,105	2,390,164	2,468,216	2,549,361	2,633,741	2,721,511	2,812,818	2,907,796	3,006,637	
Dept. Of Revenue (WRB)	0	0	6,989,114	5,008,263	5,204,498	5,386,166	5,527,558	5,677,050	5,861,108	6,052,503	6,251,486	6,458,401	6,673,630	6,897,529	7,130,433	7,372,809	
Law Dept.	0	0	1,444,508	1,157,428	1,202,778	1,244,762	1,277,438	1,311,986	1,354,522	1,398,755	1,444,741	1,492,559	1,542,300	1,594,043	1,647,869	1,703,882	
Other Indirect	0	0	1,906,847	1,696,089	1,762,545	1,824,069	1,871,952	1,922,578	1,984,911	2,049,728	2,117,116	2,187,189	2,260,078	2,335,904	2,414,779	2,496,861	
Capital (270) Pension & Benefits	0	0	0	6,748,508	7,017,854	7,266,743	7,461,784	7,668,056	7,921,211	8,184,487	8,458,317	8,743,159	9,039,488	9,347,801	9,668,619	10,002,488	
Total	0	0	73,075,065	76,594,832	80,083,103	83,365,764	85,994,560	88,712,216	91,592,664	94,588,052	97,702,664	100,941,493	104,310,187	107,814,507	111,460,328	115,254,173	
Law Dept. - Water	0	0	848,363	679,758	706,394	731,051	750,241	770,531	795,514	821,491	848,498	876,583	905,794	936,185	967,795	1,000,693	

File: SCOS17_19_ver9_rates.xls CL100A - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-5
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL100B - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-6
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL200A - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-7
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NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL200B - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-8
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Ref A:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL200LEA - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-9
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL200LEB - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-10
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL300A - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-11
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL300B - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-12
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL300LEA - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-13
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL300LEB - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-14
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL400A - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-15
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls CL400B - Not in Use	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Somallo-16
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Ref:

NOT IN USE Costs Allocated in Fin Plan

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
CL100SUM - Class 100 O&M Summary	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-17

Class 100	FY 2019 Test Year Class 100	Class 100 (a)	Class 100 & Class 500	Adjusted Test Year
Direct - Wastewater Treatment				
NEWPCP	7,092,888	7,894,375	15,422,495	15,612,249
SWWPCP	7,004,598	7,796,108	15,230,520	15,417,913
SEWPCW	3,837,643	4,271,291	8,344,418	8,447,085
Total	17,935,129	19,961,774	38,997,433	39,477,247
Collection				
Sewer Maintenance	10,598,702	11,796,340	23,045,396	25,122,863
Inlet Cleaning	5,091,187	5,666,485	11,070,077	11,070,077 (b)
Interceptors/Flow Control	4,546,167	5,059,878	9,885,006	9,885,006
GSI Maintenance	1,451,448	1,615,460	3,155,972	3,155,972
Collection System Support	955,438	1,063,402	2,077,468	-
Total	22,642,943	25,201,565	49,233,918	49,233,918
General Support				
Industrial Waste	1,689,557	1,880,474	3,673,704	3,673,704
Sludge Engineering Services	0	0	0	0
Sludge Utilization	0	0	0	0
Sludge Processing	0	0	0	0
Total	1,689,557	1,880,474	3,673,704	3,673,704
Total - Direct	42,267,628	47,043,813	91,905,055	92,384,869
Indirect				
Treatment HQ	245,604	245,604	479,814	- allocated to WWTP
Operations Administration	2,641,712	-	-	-
Security	0	-	-	-
Building Maintenance	0	-	-	-
Materials Management	906,339	-	-	-
Customer Service (c)	785,316	785,316	1,534,197	1,534,197 (c)
Automotive Maintenance	0	-	-	-
Machine Shops	0	-	-	-
Meter Shop	1,228,134	-	-	-
Total - Indirect	5,807,106	1,030,920	2,014,011	1,534,197
Total	48,074,733	48,074,733	93,919,066	93,919,066
Other				
Human Services	6,650,593	6,650,593	12,992,635	12,992,635
Finance and Administration	1,715,990	1,715,990	3,352,368	3,352,368
Public Affairs	2,405,748	2,405,748	4,699,882	4,699,882
Planning & Engineering	11,969,253	11,969,253	23,383,199	23,383,199
Information Science & Technology	2,742,913	2,742,913	5,358,570	5,358,570
Total Other	25,484,496	25,484,496	49,786,654	49,786,654
Total Class 100	73,559,229	73,559,229	143,705,720	143,705,720
Indemnities and Pension & Benefits	70,146,491	70,146,491	-	-
Total	143,705,720	143,705,720	143,705,720	143,705,720

TY Sewage Pumping
Not included in Table to left:

Class 100	0
Class 200	0
Class 300	0
Class 400	0
Total	0

	(1)	(2)	(3)	(4)	(5)
	Direct Cost	To Col (D) Direct Cost	Direct Cost Plus Overhead (To Col (G))	Percent Increase	Column (3) Repeated Here
	\$	\$	\$		\$
Direct - Wastewater Treatment					
NEWPCP	7,092,888	7,092,888	15,612,249	220.11%	15,612,249
SWWPCP	7,004,598	7,004,598	15,417,913	220.11%	15,417,913
SEWPCW	3,837,643	3,837,643	8,447,085	220.11%	8,447,085
Total	17,935,129	17,935,129	39,477,247		39,477,247
Estimated Distribution of Pumping Class 100					
Flow Control					
Central Schuylkill (SW) (a)	80,000	-	-	195.36%	156,288
Neill Drive (NE) (a)	57,000	-	-	195.36%	111,356
Other	4,922,878	-	-	195.36%	9,617,362
Total	5,059,878				9,885,006
(a) Estimated based on the estimated cost data:					
Central Schuylkill (SW)	80,000	Estimated provided by PWD Load Control			
Neill Drive (NE)	57,000	Estimated provided by PWD Load Control			
Fiscal Year	2019				
Ann. Infl. Rate	3%				

(a) Adjusted for allocation of indirect costs.
 (b) Include Interceptors/Flow Control with Pumping Stations
 (c) Allocate 100% to Customer - Equivalent Meters and Services cost function as part of Joint Direct Expense on Somallo-38.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017
 CL200SUM - Class 200 O&M Summary P.N. 135647.0100 February 11, 2018 9:00 a.m.

	(1)	(2)	(3)	(4)	(5)	(6)
Class 200	FY 2019 Test Year Class 200 \$	Net Adjustment to Test Year Power \$	Net Adjustment to Test Year Gas \$	FY 2019 Test Year Class 200 \$	Class 200 (a)	Adjusted Test Year
Direct - Wastewater Treatment				(1) + (2) + (3)		
NEWPCP	10,977,795	0	0	10,977,795	11,693,930	11,800,726
SWWPCP	6,848,445	0	2,811,843	9,660,288	10,290,476	10,385,000
SEWPCW	1,978,117	0	0	1,978,117	2,107,160	2,126,000
Total	19,804,357	0	2,811,843	22,616,200	24,091,566	24,311,726
Collection						
Sewer Maintenance	2,435,317	0	0	2,435,317	2,594,184	2,714,186
Inlet Cleaning	49,498	0	0	49,498	52,727	52,727
Interceptors/Flow Control	3,462,020	0	0	3,462,020	3,687,864	(b)
GSI Maintenance	3,150,384	0	0	3,150,384	3,355,899	3,355,899
Collection System Support	112,653	0	0	112,653	120,002	-
Total	9,209,871	0	0	9,209,871	9,810,676	6,122,812
General Support						
Industrial Waste	67,947			67,947	72,379	72,379
Sludge Engineering Services	0			0	0	0
Sludge Utilization	0			0	0	0
Sludge Processing	20,397,686	0	(2,811,843)	17,585,843	18,733,052	18,733,052
Total	20,465,632	0	(2,811,843)	17,653,789	18,805,431	18,805,431
Total - Direct	49,479,861	0	0	49,479,861	52,707,673	49,239,969

	(7)	(8)	(9)	(10)	(11)	(12)	(13)
		FY 2019 \$	Annual Inflation Factor	Direct Test Year \$	Col (9) Direct Cost \$	Direct Cost Plus Overhead Col (5) \$	Percent Increase
Direct - Wastewater Treatment				Somallo-8			
NEWPCP				10,977,795	10,977,795	11,800,726	107.50%
SWWPCP				6,848,445	6,848,445	10,385,000	151.64%
SEWPCW				1,978,117	1,978,117	2,126,000	107.48%
Total				19,804,357	19,804,357	24,311,726	
Pumping					Adjustment Input (a)		
Central Schuylkill (SW)		814,000	3.93%	814,000	0	814,000	
Neill Drive (NE)		64,000	3.93%	64,000	0	64,000	
Other						2,809,864	
Total		878,000		878,000	0	3,687,864	
Source:							

(a) If Direct Test Year costs for Central Schuylkill and Neill Drive are greater than Interceptors/Flow Control Expense, reduce the amounts from BD-24 by the variance to be consistent with the Interceptors/Flow Control expense amount.

Indirect						
Treatment HQ	220,160	0	0	220,160	220,160	-
Operations Administration	3,149,740	0	0	3,149,740	0	0
Security	0	0	0	0	-	-
Building Maintenance	0	0	0	0	-	-
Materials Management	78,073	0	0	78,073	-	-
Customer Service (d)	1,970,551	0	0	1,970,551	1,970,551	1,970,551
Warranty Program	0	0	0	0	0	0
Automotive Maintenance	0	0	0	0	-	-
Machine Shops	0	0	0	0	-	-
Meter Shop	879,780	0	0	879,780	879,780	879,780
Total - Indirect	6,298,303	0	0	6,298,303	3,070,491	2,850,331
Total	55,778,165	0	0	55,778,165	55,778,165	52,090,301

Other	<u>Somalo-4</u>					
Admin & Human Services	2,695,595			2,695,595	2,695,595	2,695,595
Finance and Administration	26,990,163			26,990,163	26,990,163	26,990,163
Public Affairs	3,521,338			3,521,338	3,521,338	3,521,338
Planning & Engineering	10,799,285			10,799,285	10,799,285	10,799,285
Information Science & Technology	7,670,953			7,670,953	7,670,953	7,670,953
Total Other	51,677,334	0	0	51,677,334	51,677,334	51,677,334
Total Class 200	107,455,498	0	0	107,455,498	107,455,498	103,767,634

Possible Error ==> 0
 Somalo-4 (\$107,455,498.3, Total O&M) - Somalo-10 (\$0.0 Liq. Encum.) = \$107,455,498.3

- (a) Adjusted for allocation of indirect costs.
- (b) Include with Pumping Stations
- (c) This is the Sewer Utility share of Class 200 - Automated Meter Reading. This cost will be assigned directly to Joint Direct Expense on Somalo-38 and will be allocated to the Customer - Equivalent Bill cost category. It is assumed this cost will continue to be a part of Class 200 costs throughout the study period.
- (d) Allocate 100% to Customer - Equivalent Meters and Services cost function as part of Joint Direct Expense on Somalo-38. USE (Rounding Error add to Sewer Maintenance) 0

Pumping (Flow Contr) 103,767,634
 Customer Costs (2,850,331)
 104,605,167

FY 2017 Budget Operations Administration - Class 200						
	Water & Sewer	Budget Factor	Adj. Budget	Sewer Share	Sewer Costs	Ann. Infl. / Liq Enc Ratio
	\$		\$		\$	
Direct Costs from Budget						
250 Professional, Consultant & Spec.						
Services (Automated Meter Reading)	0	88.86%	0	78.66%	0	3.40% 84.73%
Power	18,384,858	75.62%	13,901,865	43.27%	6,014,839	
Gas	4,735,091	84.65%	4,008,310	87.81%	3,519,745	
All Other	62,531,117	88.86%	55,566,604	78.66%	43,708,300	
Total	85,651,066		73,476,779		53,242,885	

	Class 200				
	Wastewater	Stormwater	Total	Wastewater	Stormwater
Finance & Admin					
Stormwater Program - Residential	0	0	0	0	0
Stormwater Program - Non-Res	0	0	0	0	0
Wastewater Collection Mains	0	0	0	0	0
Green Initiatives	0	0	0	0	0
Customer (Grants)	0	0	0	0	0
Customer (Basis2)	0	0	0	0	0
Class 200 - All Other	1,990,163	0	1,990,163	1,990,163	0
Class 2xx - SMIP & GARP	25,000,000	0	25,000,000	25,000,000	(0)
Total	26,990,163	0	26,990,163	26,990,163	(0)
Public Affairs					
Stormwater Program - Residential	0	0	0	0	0
Stormwater Program - Non-Residential	0	0	0	0	0
Wastewater Collection Mains	344,158	0	344,158	405,039	0
Class 200 - All Other - Volume	1,249,918	0	1,249,918	1,471,029	0
Class 200 - All Other - Customer	885,424	0	885,424	1,042,056	0
Class 200 - All Other - A&G	512,544	0	512,544	603,214	0
Total	2,992,043	0	2,992,043	3,521,338	0
Planning & Engineering					
Stormwater Program - Residential	0	0	0	0	0
Stormwater Program - Non-Residential	0	945,242	945,242	0	945,242
Wastewater Collection Mains	495,323	0	495,323	495,323	0
Class 200 - GSI Implementation	1,599,399	0	1,599,399	1,599,399	0
Class 200 - Office of Watersheds	5,192,772	0	5,192,772	5,192,772	0
Class 200 - BLS	1,197,741	0	1,197,741	1,197,741	0
Class 200 - All Other (Plant Investment)	1,368,807	0	1,368,807	1,368,807	0
Total	9,854,043	945,242	10,799,285	9,854,043	945,242

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 CL300SUM - Class 300 O&M Summary P.N. 135647.0100 February 11, 2018 9:00 a.m. Somallo-19

Class 300	FY 2019 Test Year Class 300	Class 300 (a)	Adjusted Test Year
Direct - Wastewater Treatment			
NEWPCP	2,094,412	2,897,843	2,899,351
SWWPCP	1,267,361	1,753,529	1,754,442
SEWPCW	1,665,883	2,304,928	2,306,127
Total	5,027,656	6,956,300	6,959,920
Collection			
Sewer Maintenance	556,262	769,648	771,752
Inlet Cleaning	84,457	116,855	116,855
Interceptors/Flow Control	2,028,558	2,806,727	(b)
GSI Maintenance	231,528	320,343	320,343
Collection System Support	1,521	2,104	-
Total	2,902,325	4,015,677	1,208,950
General Support			
Industrial Waste	74,446	103,004	103,004
Sludge Engineering Services	0	0	0
Sludge Utilization	0	0	0
Sludge Processing	35,159	48,646	48,646
Total	109,605	151,650	151,650
Total - Direct	8,039,587	11,123,627	8,320,520
Indirect			
Treatment HQ	3,620	3,620	-
Operations Administration	265,082	-	-
Security	0	-	-
Building Maintenance	0	-	-
Materials Management	2,781,733	-	-
Customer Service (c)	11,719	11,719	11,719
Automotive Maintenance	0	-	-
Machine Shops	0	-	-
Meter Shop	37,225	-	-
Total - Indirect	3,099,380	15,339	11,719
Total	11,138,966	11,138,966	8,332,239
Other	Somallo-4		
Admin & Human Services	399,201	399,201	399,201
Finance and Administration	3,814	3,814	3,814
Public Affairs	134,068	134,068	134,068
Planning & Engineering	639,678	639,678	639,678
Information Science & Technology	826,225	826,225	826,225
Total Other	2,002,985	2,002,985	2,002,985
Total Class 300	13,141,952	13,141,952	10,335,225
Possible Error ==>	0		

	(1)	(2)	(3)	(4)	(5)
	Direct Cost \$	Col (D) Direct Cost \$	Direct Cost Plus Overhead Col (E) \$	Percent Increase	Col 3 Less Pumping Below \$
Direct - Wastewater Treatment					
NEWPCP	2,094,412	2,094,412	2,899,351	138.43%	2,899,351
SWWPCP	1,267,361	1,267,361	1,754,442	138.43%	1,754,442
SEWPCW	1,665,883	1,665,883	2,306,127	138.43%	2,306,127
Total	5,027,656	5,027,656	6,959,920		6,959,920
Other			2,806,727		2,806,727

Somallo-4(\$13,141,952, Total O&M) - Somallo-14 (\$0 Liq. Encum.) = \$13,141,952
 (a) Adjusted for allocation of indirect costs.
 (b) Include with Pumping Stations
 (c) Allocate 100% to Customer - Equivalent Meters and Services cost function as part of Joint Direct Expense on Somallo-38.
 USE (Rounding Error add to Sewer Maintenance) 0

File: SCOS17_19_ver9_rates.xls CL400SUM - Class 400 O&M Summary	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:00 a.m.	Test Year 2019	Budget Yr 2017	Ver. 1a Somallo-20
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Class 400	FY 2019 Test Year Class 400	Class 400 (a)	Adjusted Test Year
Direct - Wastewater Treatment			
NEWPCP	151,919	190,846	191,313
SWWPCP	204,332	256,688	257,317
SEWPCW	221,465	278,211	278,892
Total	577,717	725,745	727,522
Collection			
Sewer Maintenance	71,416	89,715	89,715
Inlet Cleaning	24,672	30,993	30,993
Interceptors/Flow Control	19,893	24,991	(b)
GSI Maintenance	41,004	51,511	51,511
Collection System Support	0	0	-
Total	156,986	197,210	172,219
General Support			
Industrial Waste	13,479	16,933	16,933
Sludge Engineering Services	0	0	0
Sludge Utilization	0	0	0
Sludge Processing	0	0	0
Total	13,479	16,933	16,933
Total - Direct	748,181	939,888	916,674
Indirect			
Treatment HQ	1,777	1,777	-
Operations Administration	146,561	-	-
Security	0	-	-
Building Maintenance	0	-	-
Materials Management	406	-	-
Customer Service (c)	4,141	4,141	4,141
Automotive Maintenance	0	-	-
Machine Shops	0	-	-
Meter Shop	44,740	-	-
Total - Indirect	197,625	5,918	4,141
Total	945,806	945,806	920,815
Other	Somallo-4		
Admin & Human Services	261,609	261,609	261,609
Finance and Administration	0	0	0
Public Affairs	10,531	10,531	10,531
Planning & Engineering	173,301	173,301	173,301
Information Science & Technology	0	0	0
Total Other	445,441	445,441	445,441
Total Class 400	1,391,247	1,391,247	1,366,256

	(1)	(2)	(3)	(4)	(5)
	Direct Cost \$	Col (D) Direct Cost \$	Direct Cost Plus Overhead Col (E) \$	Percent Increase	Column 3 Less Pumping Below \$
Direct - Wastewater Treatment					
NEWPCP	151,919	151,919	191,313	125.93%	191,313
SWWPCP	204,332	204,332	257,317	125.93%	257,317
SEWPCW	221,465	221,465	278,892	125.93%	278,892
Total	577,717	577,717	727,522		727,522
Other					24,991

(a) Adjusted for allocation of indirect costs.
 (b) Include with Pumping Stations
 (c) Allocate 100% to Customer - Equivalent Meters and Services cost function as part of Joint Direct Expense on Somallo-38.
 USE (Rounding Error add to Sewer Maintenance) 0

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
POWER - Test Year Power Costs	P.N. 135647.0100	February 11, 2018 9:39 a.m.					Somallo-21a

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	FY 2019 Test Year \$	Assign Cogen Costs to Trmt Pls \$		FY 2019 Test Year \$	Test Year Adjustment \$	Estimated Test Year Adjusted \$		Test Year Power Excl. Pump. Sta. Power \$	Prorate Coll. Sys. Costs to Trmt Pls \$	Reallocate Ops Admin Power \$	Estimated Adjusted Test Year Power \$	Estimated Adjusted Test Year Power \$	Plus Pumping Station Power \$	Test Year Power Incl. Pump. Sta. Power \$	Net Adjustment to Test Year Power \$
		See Note (a)		(1)-(3)	(4)	(4)+(5)		(6)-(7)	(8)		(8)+(9)+(10)	(11)	(7)	(12)+(13)	(14)-(4)
DIRECT COSTS															
Sludge Engineering Services	0			0		0		0			0	0		0	0
Sludge Utilization	0			0		0		0			0	0		0	0
Sludge Processing	0			0	0	0		0			0	0		0	0
NEWPCP	1,234,092	4,547,182		5,781,274		5,781,274		5,781,274		0	5,781,274	5,781,274		5,781,274	0
SWWPCP	4,233,405			4,233,405	0	4,233,405		4,233,405		0	4,233,405	4,233,405		4,233,405	0
SEWPCP	1,140,364			1,140,364		1,140,364		1,140,364		0	1,140,364	1,140,364		1,140,364	0
Industrial Waste	0			0		0		0			0	0		0	0
Sewer Maintenance	0			0		0		0			0	0		0	0
Inlet Cleaning	0			0		0		0			0	0		0	0
Interceptors/Flow Control	640,478			640,478		640,478		640,478			640,478	640,478		640,478	0
GSI Maintenance	0			0		0		0			0	0		0	0
Collector System Support	62,485			62,485		62,485		62,485			62,485	62,485		62,485	0
Subtotal	7,310,824			11,858,006	0	11,858,006	0	11,858,006	0	0	11,858,006	11,858,006	0	11,858,006	0
ALLOCATED COSTS		Water	Sewer												
Treatment Headquarters	78,107	50.00%	50.00%	39,054		39,054		39,054		0	39,054	39,054		39,054	0
Machine Shops	0	50.00%	50.00%	0		0		0			0	0		0	0
Building Maintenance	0	50.00%	50.00%	0		0		0			0	0		0	0
Security	0	50.00%	50.00%	0		0		0			0	0		0	0
Operations Administration	0	50.00%	50.00%	0		0		0			0	0		0	0
Materials Management	0	50.00%	50.00%	0		0		0			0	0		0	0
Customer Service	0	50.00%	50.00%	0		0		0			0	0		0	0
Meter Shop	0	50.00%	50.00%	0		0		0			0	0		0	0
Automotive Maintenance	0	35.00%	65.00%	0		0		0			0	0		0	0
Subtotal	78,107			39,054		39,054	0	39,054	0	0	39,054	39,054	0	39,054	0
Total Sewer Power Costs	7,388,931			11,897,060		11,897,060	0	11,897,060	0	0	11,897,060	11,897,060	0	11,897,060	0

(a) NE Cogen Costs budgeted as Lease Payment to PMA (281) and included with other Class 200 Costs

Percentage of NE Class 200 - Other Costs			
Lease Payment	6,032,258	47%	4,547,182
Total NE	12,925,924		9,743,702

Source: FY 18 BDDT Summary.xlsx

Test Year	
NE Class 200 including Power	10,977,795
Power Costs	1,234,092
NE Class 200 Excluding Power	9,743,702

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 GAS - Test Year Gas Costs P.N. 135647.0100 February 11, 2018 9:39 a.m. Somallo-21b

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	FY 2019		FY 2019	Test Year	Estimated	Less	Test Year	Test Year	Test Year Adjustments	Reallocate	Estimated	Estimated	Plus	Test Year	Net
	Test Year		Test Year	Adjustment	Test Year	Pumping	Gas	Excl. Pump.	Ops Admin	Adjusted	Adjusted	Pumping	Gas	Adjustment	
	\$		\$	\$	\$	Station	\$	Sta. Gas	Gas	Test Year	Test Year	Station	Incl. Pump.	to Test Year	
						Gas		\$	\$	\$	\$	Gas	Sta. Gas	Gas	
			(1)*(3)	(4)	(4)+(5)	\$	Somallo-18	\$	\$	(8)+(9)+(10)	(11)	(7)	(12)+(13)	(14)-(4)	
DIRECT COSTS															
Sludge Engineering Services	0		0		0			0			0	0		0	0
Sludge Utilization	0		0		0			0			0	0		0	0
Sludge Processing	2,811,843		2,811,843	(2,811,843)				0	0	0	0	0		0	(2,811,843)
NEWPCP	820,121		820,121		820,121	0		820,121		820,121	820,121	0	820,121	0	0
SWWPCP	0		0	2,811,843	2,811,843	0		2,811,843	0	2,811,843	2,811,843	0	2,811,843	2,811,843	0
SEWPCP	41,843		41,843		41,843	0		41,843		41,843	41,843	0	41,843	0	0
Industrial Waste	0		0		0			0		0	0	0		0	0
Sewer Maintenance	0		0		0			0		0	0	0		0	0
Inlet Cleaning	0		0		0			0		0	0	0		0	0
Interceptors/Flow Control	0		0		0			0		0	0	0		0	0
GSI Maintenance	0		0		0			0		0	0	0		0	0
Collector System Support	25,106		25,106		25,106			25,106		25,106	25,106	0	25,106	0	0
Subtotal	3,698,913		3,698,913	0	3,698,913	0		3,698,913	0	3,698,913	3,698,913	0	3,698,913	0	0
ALLOCATED COSTS															
		Water	Sewer												
Treatment Headquarters	43,935	50.00%	50.00%	21,968	21,968			21,968		21,968	21,968	0	21,968	0	0
Machine Shops	0	50.00%	50.00%	0	0			0		0	0	0	0	0	0
Building Maintenance	0	50.00%	50.00%	0	0			0		0	0	0	0	0	0
Security	0	50.00%	50.00%	0	0			0		0	0	0	0	0	0
Operations Administration	0	50.00%	50.00%	0	0	0		0	0	0	0	0	0	0	0
Materials Management	0	50.00%	50.00%	0	0			0		0	0	0	0	0	0
Customer Service	0	50.00%	50.00%	0	0			0		0	0	0	0	0	0
Meter Shop	0	50.00%	50.00%	0	0			0		0	0	0	0	0	0
Automotive Maintenance	0	35.00%	65.00%	0	0			0		0	0	0	0	0	0
Subtotal	43,935		21,968		21,968	0		21,968	0	21,968	21,968	0	21,968	0	0
Total Sewer Gas Costs	3,742,848		3,720,881		3,720,881	0		3,720,881	0	3,720,881	3,720,881	0	3,720,881	0	0

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Direct Expenses Only	Personal Services (Class 100 & 500)	Purchase of Services (Class 200)					Materials & Supplies (Class 300)	Equipment (Class 400)	Total	
	\$	Power \$	Gas \$	Sludge \$	Other \$	Total \$	\$	\$	\$	
	<u>Somallo-17</u>	<u>Somallo-21a</u>	<u>Somallo-21b</u>			<u>Somallo-18</u>	<u>Somallo-19</u>	<u>Somallo-20</u>		
NEWPCP	15,612,249	5,781,274	820,121	(a)	5,199,331	11,800,726	2,899,351	191,313	30,503,639	
SWWPCP	15,417,913	4,233,405	2,811,843	(a)	3,339,752	10,385,000	1,754,442	257,317	27,814,672	
SEWPCP	8,447,085	1,140,364	41,843	(a)	943,793	2,126,000	2,306,127	278,892	13,158,104	
(BOX 2 this page)										
Sludge Disposal (BRC)										
NEWPCP	43.5%	0	(b)		9,300,723	-	9,300,723	21,170	0	9,321,893
SWWPCP	39.6%	0	(b)		6,609,484	-	6,609,484	19,253	0	6,628,737
SEWPCP	16.9%	0	(b)		2,822,845	-	2,822,845	8,223	0	2,831,068
Subtotal	0	0	0		18,733,052	-	18,733,052	48,646	0	18,781,698
(BOX 1 this page)										
Sewer Maintenance	25,122,863	0	0	-	2,714,186		771,752	89,715		28,698,516 x
Inlet Cleaning	11,070,077	-	-	-	52,727		52,727	116,855	30,993	11,270,652
Pumping Stations										
Central Schuykill	156,288	814,000	0	-	-	814,000	0	-	-	970,288
Neill Drive	111,356	64,000	0	-	-	64,000	-	-	-	175,356
Other	9,617,362	2,809,864	0	-	-	2,809,864	2,806,727	24,991		15,258,944
GSI Maintenance	3,155,972	0	0	-	3,355,899	3,355,899	320,343	51,511		6,883,725 x
Industrial Waste Unit	3,673,704	0	-	-	72,379	72,379	103,004	16,933		3,866,020
Total Direct Expense	92,384,869	14,842,907	3,673,807		18,733,052	15,678,067	52,927,833	11,127,247	941,665	157,381,614
Other (Joint Use (c))	49,786,654						51,677,334	2,002,985	445,441	103,912,414
Total	142,171,523						104,605,167	13,130,232	1,387,106	261,294,028
Check Total O&M	142,171,523	[Oper + P&B (excluding WRB and Law) + Indem - Capital (270) - Customer Services]				104,605,167	13,130,232	1,387,106		261,294,027
Less Liq. Encumbrances	na				0		0	na		0
	142,171,523						104,605,167	13,130,232	1,387,106	261,294,027
ERROR (see note to rt.)	(0)						(0)	(0)	0	0

BOX 1 - Class 200 SLUDGE COSTS ALLOCATION BETWEEN TRTMT PLANTS:

	\$
Sludge Engineering Services	0
Sludge Utilization	0
Sludge Processing	18,733,052
Total	18,733,052

NOTE:
 This cost includes **2,950,000** 2018 Proposed Budget of sludge barging costs from NE to BRC for the FY 2018 budget. Use an annual inflation rate of **3.40%** times the budget adjustment factor of **78.66%** times the liq enc adjustment factor of **84.73%**
 FY 2019 Test Year = \$2,033,081

CONCLUSION:
 SPREAD TOTAL SLUDGE COSTS LESS NE SLUDGE BARGING COSTS TO ALL PLANTS, THEN ADD SLUDGE BARGING COSTS TO NE PLANT ONLY.

BOX 2 - Assume pounds to BRC are in proportion to total pounds influent to plants.

	Pltides-5	lbs	Proportion of lbs to BRC	Proportion of lbs to BRC
Northeast Plant	Influent Flow - mgd	155		
	Influent Suspended Solids - mg/l	187	75.0%	181,301
	Influent BOD - mg/l	145	25.0%	46,860
				228,162
Southwest Plant	Influent Flow - mgd	160		
	Influent Suspended Solids - mg/l	167	75.0%	167,134
	Influent BOD - mg/l	121	25.0%	40,366
				207,499
Southeast Plant	Influent Flow - mgd	77		
	Influent Suspended Solids - mg/l	146	75.0%	70,319
	Influent BOD - mg/l	114	25.0%	18,302
				88,621
				524,282

(a) Financed from R&R Fund.
 (b) BRC power and gas included in SWWPCP.
 (c) Human Resources, Finance & Administration, Public Affairs, Planning & Engr., and Info. Sci. & Tech.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 NEOM - Allocation of O&M Expense to NE WPCP P.N. 135647.0100 February 11, 2018 9:00 a.m. Somallo-23

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Classes 100 & 500		Class 220 Power		Class 221 Gas		Other O&M		Total	
	Personal Services		Expense		Expense		Expense			
	mhrs/yr (a)	Expense	Distrib. (a)	Expense	Distrib. (a)	Expense	Distrib. (a)	Expense		
Raw Wastewater Pumping	14,400	782,514	12.10	699,534	8.10	66,430		8.10	497,846	2,046,324
Preliminary Treatment	28,000	1,521,556	0.10	5,781	12.80	104,976		12.80	786,719	2,419,032
Primary Sedimentation	11,300	614,056	0.80	46,250	6.00	49,207		6.00	368,774	1,078,287
Aeration	46,700	2,537,738	66.30	3,832,985	9.00	73,811		9.00	553,162	6,997,696
Secondary Sedimentation	11,400	619,491	0.80	46,250	6.90	56,588		6.90	424,091	1,146,420
Recirculating Pumping	8,400	456,467	2.80	161,876	2.60	21,323		2.60	159,802	799,468
Chlorination	7,900	429,296	0.20	11,563	1.10	9,021	2,143,753	1.10	67,609	2,661,242
Primary Sludge Pumping	2,300	124,985	0.10	5,781	1.10	9,021		1.10	67,609	207,396
Secondary Sludge Thickening	5,600	304,311	7.50	433,596	1.30	10,662		1.30	79,901	828,470
Sludge Digestion	44,000	2,391,016	1.70	98,282	16.90	138,600		16.90	1,038,715	3,666,613
Sludge Holding Tanks	3,200	173,892	0.00	0	2.40	19,683		2.40	147,510	341,085
Sludge Dewatering	8,100	440,164	1.80	104,063	1.90	15,582		1.90	116,779	676,588
Sludge Lagoon	0	0	0.00	0	0.00	0		0.00	0	0
Grit and Screening Incineration	18,000	978,143	1.60	92,500	5.40	44,287		5.40	331,897	1,446,827
Scum and Grease Incineration	4,300	233,667	0.10	5,781	1.50	12,302		1.50	92,194	343,944
Laboratory	14,900	809,685	0.00	0	11.60	95,134		11.60	712,964	1,617,783
Subtotal	228,500	12,416,981	95.9	5,544,242	88.6	726,627	2,143,753	88.6	5,445,572	26,277,175
Yardwork and A&G	58,800	3,195,268	4.10	237,032	11.40	93,494		11.40	700,670	4,226,464
Subtotal	287,300	15,612,249	100.00	5,781,274	100.00	820,121	2,143,753	100.0	6,146,242	30,503,639
Sludge Disposal										
Contract Dewatering								(c)	0	0
Biosolids Reclamation Center	Somallo-22	0	(b)	(b)	(b)	0			9,321,893	9,321,893
Subtotal		0	0	0	0	0			9,321,893	9,321,893
Total O&M		15,612,249		5,781,274		820,121	2,143,753		15,468,135	39,825,532

Allocation of Chemical Costs		\$
Chlorine		0
Various (including Sodium Hypochlorite)		3,725,000
Less expense of Sodium Hypochlorite for retail sewage odor control at Central Schuylkill PS (pumps to SWWPCP)		0
Less expense of Sodium Hypochlorite for Bucks Co. sewage odor control (pumps to NEWPCP)		0
Potassium Permanganate, etc.		650,000
Total		4,375,000
NEWPCP	737,991	2,143,753
SWWPCP	375,866	1,091,834
SEWPCP	392,245	1,139,413
Total	\$1,506,102	4,375,000

Check 30,503,639 Somallo-22

Check 9,321,893 Somallo-22

(a) Reference #13321.300, B-9.0.
 (b) BRC power included in SWWPCP power.
 (c) Financed from R&R Fund.

0

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)				DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SWOM - Allocation of O&M Expense to SW WPCP	P.N. 135647.0100				February 11, 2018 9:00 a.m.						Somallo-24
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
	Classes 100 & 500 Personal Services		Class 220 Power		Class 221 Gas			Other O&M		Total	
	mhrs/yr (a)	Expense	Distrib. (a)	Expense	Distrib. (a)	Expense	Expense	Distrib. (a)	Expense		
Raw Wastewater Pumping	2,500	151,871	2.10	88,901	1.05	29,524		1.05	44,727	315,023	
Preliminary Treatment	33,000	2,004,693	0.14	5,927	12.02	337,984		12.02	512,013	2,860,617	
Flocculation	6,000	364,490	6.73	284,908	6.23	175,178		6.23	265,378	1,089,954	
Primary Sedimentation	8,700	528,510	0.53	22,437	3.51	98,696		3.51	149,515	799,158	
Aeration	17,700	1,075,245	65.57	2,775,843	6.84	192,330		6.84	291,362	4,334,780	
Secondary Sedimentation	15,000	911,224	1.35	57,151	7.37	207,233		7.37	313,938	1,489,546	
Recirculating Pumping	5,600	340,190	3.58	151,556	3.07	86,324		3.07	130,772	708,842	
Chlorination	8,500	516,360	0.29	12,277	1.05	29,524	1,091,834	1.05	44,727	1,694,722	
Effluent Pumping	7,000	425,238	0.88	37,254	0.35	9,841		0.35	14,909	487,242	
Primary Sludge Pumping	6,400	388,789	0.08	3,387	3.95	111,068		3.95	168,257	671,501	
Secondary Sludge Thickening	5,300	321,966	8.76	370,846	0.70	19,683		0.70	29,818	742,313	
Sludge Digestion	27,000	1,640,204	2.73	115,572	9.21	258,971		9.21	392,316	2,407,063	
Sludge Holding Tanks	4,600	279,442	0.00	0	3.25	91,385		3.25	138,440	509,267	
Sludge Dewatering	21,000	1,275,714	2.00	84,668	19.47	547,466		19.47	829,359	2,737,207	
Sludge Lagoon	200	12,150	0.00	0	0.18	5,061		0.18	7,667	24,878	
Grit and Screening Incineration	18,500	1,123,843	1.24	52,494	4.12	115,848		4.12	175,499	1,467,684	
Scum and Grease Incineration	4,700	285,517	0.19	8,043	1.32	37,116		1.32	56,228	386,904	
Laboratory	12,800	777,578	0.00	0	7.89	221,854		7.89	336,089	1,335,521	
Subtotal	204,500	12,423,024	96.17	4,071,264	91.58	2,575,086	1,091,834	91.58	3,901,014	24,062,222	
Yardwork and A&G	49,300	2,994,889	3.83	162,141	8.42	236,757		8.42	358,663	3,752,450	Check
Subtotal	253,800	15,417,913	100.00	4,233,405	100.00	2,811,843	1,091,834	100.00	4,259,677	27,814,672	27,814,672 Somallo-22
Sludge Disposal											
Contract Dewatering								(c)		0	Check
Biosolids Reclamation Center		0		(b)	(b)	0			6,628,737	6,628,737	6,628,737 Somallo-22
Subtotal		0		0	0	0			6,628,737	6,628,737	6,628,737 Somallo-22
Total O&M		15,417,913		4,233,405		2,811,843	1,091,834		10,888,414	34,443,409	
(a) Reference #13321.300, B-9.0.											0
(b) BRC power included in SWWPCP power.											
(c) Financed from R&R Fund.											

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 SEOM - Allocation of O&M Expense to SE WPCP P.N. 135647.0100 February 11, 2018 9:00 a.m. Somallo-25

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Classes 100 & 500 Personal Services		Class 220 Power		Class 221 Gas		Other O&M		Total	
	mhrs/yr (a)	Expense	Distrib. (a)	Expense	Distrib. (a)	Expense	Expense	Distrib. (a)	Expense	
Raw Wastewater Pumping	13,800	810,075	22.80	260,003	6.20	2,594		6.20	148,143	1,220,815
Preliminary Treatment	19,600	1,150,541	0.00	0	18.10	7,574		18.10	432,481	1,590,596
Flocculation	6,000	352,206	35.10	400,268	7.60	3,180		7.60	181,594	937,248
Primary Sedimentation	7,000	410,908	1.40	15,965	4.90	2,050		4.90	117,081	546,004
Aeration	7,000	410,908	30.40	346,671	7.60	3,180		7.60	181,594	942,353
Secondary Sedimentation	8,700	510,699	1.00	11,404	6.20	2,594		6.20	148,143	672,840
Recirculating Pumping	4,200	246,545	2.40	27,369	3.70	1,548		3.70	88,408	363,870
Chlorination	6,700	393,297	0.30	3,421	1.50	628	1,139,413	1.50	35,841	1,572,600
Effluent Pumping	5,300	311,116	2.70	30,790	3.20	1,339		3.20	76,461	419,706
Primary Sludge Pumping	5,600	328,726	0.10	1,140	5.80	2,427		5.80	138,585	470,878
Waste Sludge Pumping	4,100	240,674	0.30	3,421	3.70	1,548		3.70	88,408	334,051
Sludge Holding Tanks	2,900	170,233	0.00	0	2.90	1,213		2.90	69,293	240,739
Scum Pumping	5,600	328,726	0.30	3,421	5.80	2,427		5.80	138,585	473,159
Primary Sludge Transfer Pumping	2,900	170,233	2.10	23,948	2.10	879		2.10	50,177	245,237
Waste Activated Sludge Xfer Pumping	2,700	158,493	1.10	12,544	2.00	837		2.00	47,788	219,662
Laboratory	9,600	563,530	0.00	0	8.10	3,389		8.10	193,541	760,460
Subtotal	111,700	6,556,910	100.0	1,140,365	89.4	37,407	1,139,413	89.4	2,136,123	11,010,218
Yardwork and A&G	32,200	1,890,175	0.00	(1)	10.60	4,436		10.60	253,276	2,147,886
Subtotal	143,900	8,447,085	100.0	1,140,364	100.0	41,843	1,139,413	100.0	2,389,399	13,158,104
Sludge Disposal										
Contract Dewatering								(c)		0
Biosolids Reclamation Center		0		(b)		(b)	0		2,831,068	2,831,068
Subtotal		0		0		0	0		2,831,068	2,831,068
Total O&M		8,447,085		1,140,364		41,843	1,139,413		5,220,467	15,989,172

(a) Reference #13321.300, B-9.0.
 (b) BRC power included in SWWPCP power.
 (c) Financed from R&R Fund.

Check
13,158,104
Somallo-22

Check
2,831,068
Somallo-22

Line No.	Process	(1) Treatment Plant Responsibility for Personal Services & Contributions			(2) Treatment Plant Responsibility for Purchase of Services, Mat'l's & Supp., and Equipment			(3) Treatment Plant Responsibility for Power Requirements			(4) Treatment Plant Responsibility for Gas Requirements			(5) Basis of Allocation	
		Total \$	SWWPCP \$	SEWPCP \$	Total \$	SWWPCP \$	SEWPCP \$	Total \$	SWWPCP \$	SEWPCP \$	Total \$	SWWPCP \$	SEWPCP \$	SWWPCP %	SEWPCP %
		Somallo-24													
1	Raw Wastewater Pumping	151,871	151,871	0	44,727	44,727	0	88,901	88,901	0	29,524	29,524	0	100	0.0
2	Preliminary Treatment	2,004,693	2,004,693	0	512,013	512,013	0	5,927	5,927	0	337,984	337,984	0	100	0.0
3	Flocculation	364,490	364,490	0	265,378	265,378	0	284,908	284,908	0	175,178	175,178	0	100	0.0
4	Primary Sedimentation	528,510	528,510	0	149,515	149,515	0	22,437	22,437	0	98,696	98,696	0	100	0.0
5	Aeration	1,075,245	1,075,245	0	291,362	291,362	0	2,775,843	2,775,843	0	192,330	192,330	0	100	0.0
6	Secondary Sedimentation	911,224	911,224	0	313,938	313,938	0	57,151	57,151	0	207,233	207,233	0	100	0.0
7	Recirculating Pumping	340,190	340,190	0	130,772	130,772	0	151,556	151,556	0	86,324	86,324	0	100	0.0
8	Chlorination	516,360	516,360	0	1,136,561	1,136,561	0	12,277	12,277	0	29,524	29,524	0	100	0.0
9	Effluent Pumping	425,238	425,238	0	14,909	14,909	0	37,254	37,254	0	9,841	9,841	0	100	0.0
10	Primary Sludge Pumping	388,789	388,789	0	168,257	168,257	0	3,387	3,387	0	111,068	111,068	0	100	0.0
11	Secondary Sludge Thickening	321,966	321,966	0	29,818	29,818	0	370,846	370,846	0	19,683	19,683	0	100	0.0
12	Sludge Digestion	1,640,204	1,230,153	410,051	392,316	294,237	98,079	115,572	86,679	28,893	258,971	194,228	64,743	75.0	25.0 (d)
13	Sludge Holding Tanks	279,442	209,581	69,861	138,440	103,830	34,610	0	0	0	91,385	68,539	22,846	75.0	25.0 (d)
14	Sludge Dewatering	1,275,714	956,785	318,929	829,359	622,019	207,340	84,668	63,501	21,167	547,466	410,599	136,867	75.0	25.0 (d)
15	Sludge Lagoon	12,150	9,112	3,038	7,667	5,750	1,917	0	0	0	5,061	3,796	1,265	75.0	25.0 (d)
16	Grit and Screening Incineration	1,123,843	842,882	280,961	175,499	131,624	43,875	52,494	39,370	13,124	115,848	86,886	28,962	75.0	25.0 (d)
17	Scum and Grease Incineration	285,517	214,138	71,379	56,228	42,171	14,057	8,043	6,032	2,011	37,116	27,837	9,279	75.0	25.0 (d)
18	Laboratory	777,578	777,578	0	336,089	336,089	0	0	0	0	221,854	221,854	0	100	0.0
19	Subtotal	12,423,024	11,268,805	1,154,219	4,992,848	4,592,970	399,878	4,071,264	4,006,069	65,195	2,575,086	2,311,124	263,962		
20	Yardwork and A&G (a)	2,994,889	2,727,600	267,289	757,561	690,000	67,561	(b)			(b)				
21	Subtotal	15,417,913	13,996,405	1,421,508	5,750,409	5,282,970	467,439	4,071,264	4,006,069	65,195	2,575,086	2,311,124	263,962		
22	Non-Process Related Sludge Disposal	0	0	0	6,628,737	6,628,737	0	(c)			(c)				
23	Total	15,417,913	13,996,405	1,421,508	12,379,146	11,911,707	467,439	4,071,264	4,006,069	65,195	2,575,086	2,311,124	263,962		
		0	15,417,913		0	12,379,146		0	4,071,264		0	2,575,086			

(a) Allocate Total Yardwork and A&G on the basis of Line 19, sum of Columns 1 through 6.

Table_WW-10B

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE NORTHEAST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.	(1) Total Operation and Maintenance Expense \$	(2) Retail and Cheltenham		(3) Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton		(4) Volume \$	(5) Capacity \$	(6) Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Suspended Solids \$	(7) BOD \$
		Volume \$	Capacity \$	Volume \$	Capacity \$				
	Somallo-23								
1	Raw Wastewater Pumping	782,514		782,514					
2	Preliminary Treatment	1,521,556				1,080,305	441,251		
3	Primary Sedimentation	614,056				614,056			
4	Aeration	2,537,738							2,537,738
5	Secondary Sedimentation	619,491				619,491			
6	Recirculating Pumping	456,467				456,467			
7	Chlorination	429,296				261,871	167,425		
8	Primary Sludge Pumping	124,985						124,985	
9	Secondary Sludge Thickening	304,311						152,156	152,155
10	Sludge Digestion	2,391,016						1,793,262	597,754
11	Sludge Holding Tanks	173,892						130,419	43,473
12	Sludge Dewatering	440,164						330,123	110,041
13	Sludge Lagoon	0							
14	Grit and Screening Incineration	978,143				655,356	322,787		
15	Scum and Grease Incineration	233,667						233,667	
16	Laboratory	809,685						404,843	404,842
17	Subtotal Personal Services	12,416,981	0	0	782,514	3,687,546	931,463	3,169,455	3,846,003
	Purchase of Services, Materials, Supplies, and Equipment:								
18	Raw Wastewater Pumping	497,846			497,846				
19	Preliminary Treatment	786,719					786,719		
20	Primary Sedimentation	368,774				368,774			
21	Aeration	553,162							553,162
22	Secondary Sedimentation	424,091				424,091			
23	Recirculating Pumping	159,802				159,802			
24	Chlorination	2,211,362				2,211,362			
25	Primary Sludge Pumping	67,609						67,609	
26	Secondary Sludge Thickening	79,901						39,951	39,950
27	Sludge Digestion	1,038,715						779,036	259,679
28	Sludge Holding Tanks	147,510						110,633	36,877
29	Sludge Dewatering	116,779						87,584	29,195
30	Sludge Lagoon	0							
31	Grit and Screening Incineration	331,897					331,897		
32	Scum and Grease Incineration	92,194						92,194	
33	Laboratory	712,964						356,482	356,482
34	Subtotal Purchase of Services, Materials, Supplies & Equipment	7,589,325	0	0	497,846	3,164,029	1,118,616	1,533,489	1,275,345
35	Subtotal All Above	20,006,306	0	0	1,280,360	6,851,575	2,050,079	4,702,944	5,121,348
	Administrative and General:								
36	Personal Services	3,195,268	0	0	201,365	948,918	239,694	815,597	989,694
37	Other	1,031,196	0	0	67,645	429,911	151,991	208,362	173,287
38	Subtotal Administration & General	4,226,464	0	0	269,010	1,378,829	391,685	1,023,959	1,162,981

Table_WW-10B

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE NORTHEAST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.	(1) Total Operation and Maintenance Expense \$	(2) Retail and Cheltenham		(3) Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton		(4) Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton		(5) Suspended Solids \$	(6) BOD \$	(7) CHECK
		Volume \$	Capacity \$	Volume \$	Capacity \$	Volume \$	Capacity \$			
Power Requirements: Somallo-23										
39	Raw Wastewater Pumping	699,534		594,604	104,930					
40	Preliminary Treatment	5,781				4,914	867			
41	Primary Sedimentation	46,250				39,313	6,937			
42	Aeration	3,832,985							3,832,985	
43	Secondary Sedimentation	46,250				39,313	6,937			
44	Recirculating Pumping	161,876				137,595	24,281			
45	Chlorination	11,563				9,829	1,734			
46	Primary Sludge Pumping	5,781						5,781		
47	Secondary Sludge Thickening	433,596						216,798	216,798	
48	Sludge Digestion	98,282						73,712	24,570	
49	Sludge Holding Tanks	0								
50	Sludge Dewatering	104,063						78,047	26,016	
51	Sludge Lagoon	0								
52	Grit and Screening Incineration	92,500				78,625	13,875			
53	Scum and Grease Incineration	5,781						5,781		
54	Laboratory	0								
55	Subtotal Power Requirements	5,544,242	0	0	594,604	104,930	309,589	54,631	380,119	4,100,369
Gas Requirements: Somallo-23										
56	Raw Wastewater Pumping	66,430		0	66,430					
57	Preliminary Treatment	104,976				0	104,976			
58	Primary Sedimentation	49,207				49,207	0			
59	Aeration	73,811							73,811	
60	Secondary Sedimentation	56,588				56,588	0			
61	Recirculating Pumping	21,323				21,323	0			
62	Chlorination	9,021				9,021	0			
63	Primary Sludge Pumping	9,021						9,021		
64	Secondary Sludge Thickening	10,662						5,331	5,331	
65	Sludge Digestion	138,600						103,950	34,650	
66	Sludge Holding Tanks	19,683						14,762	4,921	
67	Sludge Dewatering	15,582						11,687	3,895	
68	Sludge Lagoon	0								
69	Grit and Screening Incineration	44,287				0	44,287			
70	Scum and Grease Incineration	12,302						12,302		
71	Laboratory	95,134						47,567	47,567	
72	Subtotal Gas Requirements	726,627	0	0	0	66,430	136,139	149,263	204,620	170,175
73	Sludge Disposal	9,321,893							6,991,420	2,330,473
74	Total Northeast WPC Plant Expense	39,825,532	0	0	594,604	1,720,730	8,676,132	2,645,658	13,303,062	12,885,346
		0	39,825,532							

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
BASISALLO - Basis of Allocation of O&M Expense	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-29

Line No.	Retail and Cheltenham		Basis of Allocation		Retail, Cheltenham, Abington		Solids %	BOD %	Reference
	Volume %	Capacity %	Volume %	Capacity %	Volume %	Capacity %			
Personal Services:									
1				100					PN 16281.300 - SOM-33 and 34
2					71	29			(a)
3					100				
4								100	
5					100				
6					100				
7					61	39			(a)
8							100		
9							50	50	#13321.300;A-16
10							75	25	#13321.300;A-16
11							75	25	#13321.300;A-16
12							75	25	#13321.300;A-16
13									
14					67	33			(a)
15							100		
16							50	50	Assume
17									Subtotal Personal Services
Purchase of Services, Materials, Supplies, and Equipment:									
18				100					
19						100			
20					100				
21								100	
22					100				
23					100				
24					100				
25							100		
26							50	50	#13321.300;A-16
27							75	25	#13321.300;A-16
28							75	25	#13321.300;A-16
29							75	25	#13321.300;A-16
30									
31						100			
32							100		
33							50	50	Assume
34									Subtotal Purchase of Services, Materials, Supplies & Equipment
35									Subtotal All Above
Administrative and General:									
36									Allocated on subtotal Personal Services (Line 17)
37									Allocated on subtotal Purchase of Services, Etc. (Line 34)
38									Subtotal Administration & General

Power Requirements:							
39	Raw Wastewater Pumping	85	15				(c)
40	Preliminary Treatment			85	15		(c)
41	Primary Sedimentation			85	15		(c)
42	Aeration					100	
43	Secondary Sedimentation			85	15		(c)
44	Recirculating Pumping			85	15		(c)
45	Chlorination			85	15		(c)
46	Primary Sludge Pumping					100	
47	Secondary Sludge Thickening					50	
48	Sludge Digestion					75	25 #13321.300;A-16
49	Sludge Holding Tanks						
50	Sludge Dewatering					75	25 #13321.300;A-16
51	Sludge Lagoon						
52	Grit and Screening Incineration			85	15		(c)
53	Scum and Grease Incineration					100	
54	Laboratory						
55	Subtotal Power Requirements						
Gas Requirements:							
56	Raw Wastewater Pumping			100			
57	Preliminary Treatment					100	
58	Primary Sedimentation			100			
59	Aeration					100	
60	Secondary Sedimentation			100			
61	Recirculating Pumping			100			
62	Chlorination			100			
63	Primary Sludge Pumping					100	
64	Secondary Sludge Thickening					50	50 #13321.300;A-16
65	Sludge Digestion					75	25 #13321.300;A-16
66	Sludge Holding Tanks					75	25 #13321.300;A-16
67	Sludge Dewatering					75	25 #13321.300;A-16
68	Sludge Lagoon						
69	Grit and Screening Incineration					100	
70	Scum and Grease Incineration					100	
71	Laboratory					50	50 Assume
72	Subtotal Gas Requirements						
73	Sludge Disposal					75	25 #13321.300;A-16
74	Total Northeast WPC Plant Expense						

(a) Assume Operation is Volume related & Maintenance is Capacity related.

	manhours (Ref #12065, H-10.1)		Total mhrs	Operation	Maintenance	Total
	Operation mhrs	Maintenance mhrs				
Preliminary Treatment	20,000	8,000	28,000	71%	29%	100%
Chlorination	4,800	3,100	7,900	61%	39%	100%
Grit & Screenings Incineration	12,000	6,000	18,000	67%	33%	100%
Frankford Grit Cham. 1978 Rpt, Table 28 (b)	71,000	62,000	133,000	53%	47%	100%

(b) The Frankford Grit Chamber will not be in service during the test period.

(c) Reference #10207.300, SI-1.1.1

(d) Line 56, sludge disposal represents NEWPCP allocated share of related expenses incurred at the SWWPCP.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 NEOMSUM - Summary of Allocated O&M NE WPCP P.N. 135647.0100 February 11, 2018 9:00 a.m. Somallo-30

Line No.	Summary of Allocated O&M	Total Operation and Maintenance Expense \$	Retail and Cheltenham		Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton		Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton		Suspended Solids \$	BOD \$
			Volume \$	Capacity \$	Volume \$	Capacity \$	Volume \$	Capacity \$		
			Somallo-23&Somallo-27&Somallo-28							
1	Total Direct O&M	39,825,532	0	0	594,604	1,720,730	8,676,132	2,645,658	13,303,062	12,885,346
2	Less Direct Power	5,544,242	0	0	594,604	104,930	309,589	54,631	380,119	4,100,369
3	Less A&G Power	237,032	0	0	0	15,500	98,932	34,900	47,900	39,800
4	Less Sludge Disp. Power	0	0	0	0	0	0	0	0	0
5	Less Direct Gas	726,627	0	0	0	66,430	136,139	149,263	204,620	170,175
6	Less A&G Gas	93,494	0	0	0	6,100	38,994	13,800	18,900	15,700
7	Less Sludge Disp. Gas	0	0	0	0	0	0	0	0	0
8	Direct O&M Less Power	33,224,137	0	0	0	1,527,770	8,092,478	2,393,064	12,651,523	8,559,302

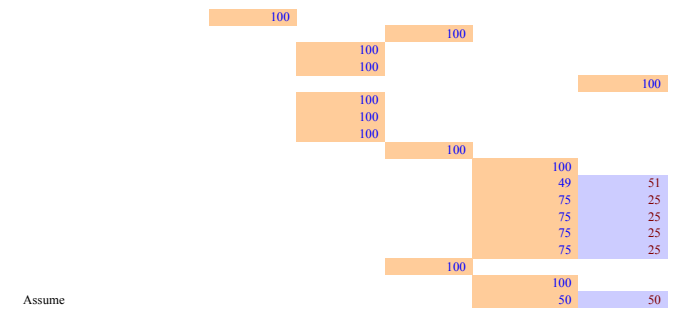
Ref: Somallo-26 * allocation percentages this page

TABLE WW - 10C

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE SOUTHWEST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.		(1)	(2)		(3)		(4)	(5)		(6)	(7)	Basis of Allocation								
		Total Operation and Maintenance Expense \$	Volume \$	Capacity \$	Volume \$	Capacity \$	Suspended Solids \$	BOD \$	Reference	Volume %	Capacity %	Volume %	Capacity %	Suspended Solids %	BOD %					
Personal Services:												Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby								
		<u>Somallo-26</u>																		
1	Raw Wastewater Pumping	151,871		151,871																
2	Preliminary Treatment	2,004,693			1,463,426	541,267						(a)		100		73		27		
3	Flocculation	364,490			364,490									100		100				
4	Primary Sedimentation	528,510			528,510									100		100				
5	Aeration	1,075,245							1,075,245											100
6	Secondary Sedimentation	911,224			911,224									100		100				
7	Recirculating Pumping	340,190			340,190									100		100				
8	Chlorination	516,360			304,652	211,708						(a)				59		41		
9	Effluent Pumping	425,238				425,238										100				
10	Primary Sludge Pumping	388,789							388,789											100
11	Secondary Sludge Thickening	321,966							157,763	164,203								49	51	
12	Sludge Digestion	1,230,153							922,615	307,538								75	25	
13	Sludge Holding Tanks	209,581							157,186	52,395								75	25	
14	Sludge Dewatering	956,785							717,589	239,196								75	25	
15	Sludge Lagoon	9,112							6,834	2,278								75	25	
16	Grit and Screening Incineration	842,882			573,160	269,722						(a)				68		32		
17	Scum and Grease Incineration	214,138							214,138										100	
18	Laboratory	777,578							388,789	388,789			Assume						50	50
19	Subtotal Personal Services	11,268,805	0	151,871	4,485,652	1,447,935		2,953,703		2,229,644										

Purchase of Services, Materials, Supplies, and Equipment:		Somalo-26							
20	Raw Wastewater Pumping	44,727		44,727					
21	Preliminary Treatment	512,013				512,013			
22	Flocculation	265,378			265,378				
23	Primary Sedimentation	149,515			149,515				
24	Aeration	291,362					291,362		
25	Secondary Sedimentation	313,938			313,938				
26	Recirculating Pumping	130,772			130,772				
27	Chlorination	1,136,561			1,136,561				
28	Effluent Pumping	14,909				14,909			
29	Primary Sludge Pumping	168,257					168,257		
30	Secondary Sludge Thickening	29,818					14,611	15,207	
31	Sludge Digestion	294,237					220,678	73,559	
32	Sludge Holding Tanks	103,830					77,873	25,957	
33	Sludge Dewatering	622,019					466,514	155,505	
34	Sludge Lagoon	5,750					4,313	1,437	
35	Grit and Screening Incineration	131,624				131,624			
36	Scum and Grease Incineration	42,171					42,171		
37	Laboratory	336,089					168,045	168,044	
38	Subtotal Purchase of Services, Materials, Supplies & Equipment	4,592,970	0	44,727	1,996,164	658,546	1,162,462	731,071	
39	Subtotal All Above	15,861,775	0	196,598	6,481,816	2,106,481	4,116,165	2,960,715	
Administrative and General:		Somalo-26							
40	Personal Services	2,727,600	0	36,760	1,085,746	350,471	714,940	539,683	
41	Other	690,000	0	6,719	299,883	98,933	174,637	109,828	
42	Subtotal Administration & General	3,417,600	0	43,479	1,385,629	449,404	889,577	649,511	



Assume

Allocated on subtotal Personal Services (Line 17)
 Allocated on subtotal Purchase of Services, Etc. (Line 34)

TABLE WW - 10C

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE SOUTHWEST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.	(1) Total Operation and Maintenance Expense \$	(2) Retail		(4) Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby Suspended			(7) BOD \$	Basis of Allocation									
		Volume \$	Capacity \$	Volume \$	Capacity \$	Solids \$		Reference	Volume %	Capacity %	Volume %	Capacity %	Solids %	BOD %			
Power Requirements:																	
43	88,901	75,566	13,335														
44	5,927			5,038	889												
45	284,908			242,172	42,736												
46	22,437			19,071	3,366												
47	2,775,843						2,775,843										
48	57,151			48,578	8,573												
49	151,556			128,823	22,733												
50	12,277			10,435	1,842												
51	37,254			31,666	5,588												
52	3,387						3,387										
53	370,846						181,715	189,131									
54	86,679						65,009	21,670									
55	0						0	0									
56	63,501						47,626	15,875									
57	0						0	0									
58	39,370			33,465	5,905												
59	6,032						6,032										
60	0						0	0									
61	4,006,069	75,566	13,335	519,248	91,632		303,769	3,002,519									
Gas Requirements:																	
62	29,524	0	29,524														
63	337,984			0	337,984												
64	175,178			175,178	0												
65	98,696			98,696	0												
66	192,330							192,330									
67	207,233			207,233	0												
68	86,324			86,324	0												
69	29,524			29,524	0												
70	9,841			0	9,841												
71	111,068						111,068										
72	19,683						9,645	10,038									
73	194,228						145,671	48,557									
74	68,539						51,404	17,135									
75	410,599						307,949	102,650									
76	3,796						2,847	949									
77	86,886			0	86,886												
78	27,837						27,837										
79	221,854						110,927	110,927									
80	2,311,124	0	29,524	596,955	434,711		767,348	482,586									
81	6,628,737						4,971,553	1,657,184									
82	32,225,305	75,566	282,936	8,983,648	3,082,228		11,048,412	8,752,515									
	0	32,225,305															

(a) Assume Operation is Volume related & Maintenance is Capacity related.

	manhours (Ref. #12065, H-11.1)		Total mhrs	Operation	Maintenance	Total
	Operation mhrs	Maintenance mhrs				
Preliminary Treatment	24,000	9,000	33,000	73%	27%	100%
Chlorination	5,000	3,500	8,500	59%	41%	100%
Grit & Screenings Incineration	12,500	6,000	18,500	68%	32%	100%

(b) Reference #10207.300, SI-1.1.1

(c) Line 62, sludge disposal represents allocated share of related expenses incurred at the SWWPCP.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
SWOMSUM - Summary of Allocated O&M SW WPCP	P.N. 135647.0100	February 11, 2018 9:00 a.m.						Somallo-33

Rangename: SWCOS03T

Line No.	Total Operation and Maintenance	Retail		Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby			BOD	
		Volume	Capacity	Volume	Capacity	Suspended Solids		
		Expense \$	Volume \$	Capacity \$	Volume \$	Capacity \$	Solids \$	BOD \$
Summary of Allocated O&M								
Somallo-26&Somallo-31&Somallo-32								
1	Total Direct O&M	32,225,305	75,566	282,936	8,983,648	3,082,228	11,048,412	8,752,515
2	Less Direct Power	4,006,069	75,566	13,335	519,248	91,632	303,769	3,002,519
3	Less A&G Power	147,681	0	1,438	64,184	21,175	37,377	23,507
4	Less Sludge Disp. Power	0	0	0	0	0	0	0
5	Less Direct Gas	2,311,124	0	29,524	596,955	434,711	767,348	482,586
6	Less A&G Gas	215,643	0	2,100	93,721	30,919	54,579	34,324
7	Less Sludge Disp. Gas	0	0	0	0	0	0	0
8	Direct O&M Less Power	25,544,788	0	236,539	7,709,540	2,503,791	9,885,339	5,209,579

TABLE WW - 10D

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE SOUTHEAST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.	(1) Total Operation and Maintenance Expense \$	(2) Retail and Springfield (Wyndmoor)				(5) BOD \$	Basis of Allocation				
		(3) Volume \$	(3) Capacity \$	(4) Suspended Solids \$	(4) BOD \$		Reference	Volume %	Capacity %	Suspended Solids %	BOD %
Personal Services:											
	Somallo-25 & Somallo-26										
1	810,075		810,075								
2	1,150,541	828,390	322,151								
3	352,206	352,206									
4	410,908	410,908									
5	410,908				410,908						
6	510,699	510,699									
7	246,545	246,545									
8	393,297	247,777	145,520								
9	311,116		311,116								
10	328,726			328,726							
11	240,674			204,573	36,101						
12	0										
13	410,051			348,543	61,508						
14	240,094			204,080	36,014						
15	318,929			271,090	47,839						
16	3,038			2,582	456						
17	280,961	191,053	89,908								
18	71,379			71,379							
19	328,726			328,726							
20	170,233			170,233							
21	158,493			134,719	23,774						
22	563,530			281,765	281,765						
23	7,711,129	2,787,578	1,678,770	2,346,416	898,365						

Basis of Allocation											
Retail and Springfield (Wyndmoor)											
Reference	Volume %	Capacity %	Suspended Solids %	BOD %							
PN 16281.300 - SOM-39 and 40											
(a)	72	28	100								
	100										
	100									100	
(a)	63		37	100							
			100	85	15						
			85	85	15						
			85	85	15						
(a)	68	32	100	100							
			100	85	15						
Assume			50	50							

TABLE WW - 10D

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE SOUTHEAST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.	Description	(1) Total Operation and Maintenance Expense \$	(2) Retail and Springfield (Wyndmoor)		(4) Suspended Solids \$	(5) BOD \$	Basis of Allocation				
			Volume \$	Capacity \$			Reference	Volume %	Capacity %	Suspended Solids %	BOD %
Power Requirements:											
Somallo-25 & Somallo-26											
52	Raw Wastewater Pumping	260,003	221,003	39,000				(b)	85	15	
53	Preliminary Treatment	0	0	0				(b)	85	15	
54	Flocculation	400,268	340,228	60,040				(b)	85	15	
55	Primary Sedimentation	15,965	13,570	2,395				(b)	85	15	
56	Aeration	346,671				346,671					100
57	Secondary Sedimentation	11,404	9,693	1,711				(b)	85	15	
58	Recirculating Pumping	27,369	23,264	4,105				(b)	85	15	
59	Chlorination	3,421	2,908	513				(b)	85	15	
60	Effluent Pumping	30,790	26,172	4,618				(b)	85	15	
61	Primary Sludge Pumping	1,140			1,140						100
62	Waste Sludge Pumping	3,421			2,908	513				85	15
63	Secondary Sludge Thickening	0									
64	Sludge Digestion	28,893			24,559	4,334				85	15
65	Sludge Holding Tanks	0									
66	Sludge Dewatering	21,167			17,992	3,175				85	15
67	Sludge Lagoon	0									
68	Grit and Screening Incineration	13,124	11,155	1,969				(b)	85	15	
69	Scum and Grease Incineration	2,011			2,011						100
70	Scum Pumping	3,421			3,421						100
71	Primary Sludge Transfer Pumping	23,948			23,948						100
72	Waste Activated Sludge Xfer Pumping	12,544			10,662	1,882				85	15
73	Laboratory	0									
74	Subtotal Power Requirements	1,205,560	647,993	114,351	86,641	356,575					
Gas Requirements:											
Somallo-25 & Somallo-26											
75	Raw Wastewater Pumping	2,594	0	2,594							100
76	Preliminary Treatment	7,574	0	7,574							100
77	Flocculation	3,180	3,180	0					100		
78	Primary Sedimentation	2,050	2,050	0					100		
79	Aeration	3,180				3,180					100
80	Secondary Sedimentation	2,594	2,594	0					100		
81	Recirculating Pumping	1,548	1,548	0					100		
82	Chlorination	628	628	0					100		
83	Effluent Pumping	1,339	0	1,339							100
84	Primary Sludge Pumping	2,427			2,427						100
85	Waste Sludge Pumping	1,548			1,316	232				85	15
86	Secondary Sludge Thickening	0									
87	Sludge Digestion	64,743			55,032	9,711				85	15
88	Sludge Holding Tanks	24,059			20,450	3,609				85	15
89	Sludge Dewatering	136,867			116,337	20,530				85	15
90	Sludge Lagoon	1,265			1,075	190				85	15
91	Grit and Screening Incineration	28,962	0	28,962						100	
92	Scum and Grease Incineration	9,279			9,279						100
93	Scum Pumping	2,427			2,427						100
94	Primary Sludge Transfer Pumping	879			879						100
95	Waste Activated Sludge Xfer Pumping	837			711	126				85	15
96	Laboratory	3,389			1,695	1,694		Assume		50	50
97	Subtotal Gas Requirements	301,369	10,000	40,469	211,628	39,272					
98	Sludge Disposal	2,831,068			2,406,408	424,660				85	15
99	Total Southeast WPC Plant Expense	18,207,277	6,086,108	3,068,753	6,687,028	2,365,388					

(a) Assume Operation is Volume related & Maintenance is Capacity related.

manhours (Ref. #12065, H-12.1)

	Operation mhrs	Maintenance mhrs	Total mhrs	Operation %	Maintenance %	Total %
Preliminary Treatment	13,000	5,000	18,000	72%	28%	100%
Chlorination	4,200	2,500	6,700	63%	37%	100%
Grit & Screenings Incineration	12,500	6,000	18,500	68%	32%	100%

(b) Reference #10207.300, SI-1.1.1

(c) Line 74, sludge disposal represents allocated share of related expenses incurred at the SWWPCP.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SEOMSUM - Summary of Allocated O&M SE WPCP	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-36

Rangename: SECOST

Line No.	Total Operation and Maintenance Expense \$	Retail and Springfield (Wyndmoor)				
		Volume \$	Capacity \$	Suspended Solids \$	BOD \$	
Summary of Allocated O&M						
1	Total Direct O&M	18,207,277	6,086,108	3,068,753	6,687,028	2,365,388
2	Less Direct Power	1,205,560	647,993	114,351	86,641	356,575
3	Less A&G Power	14,460	6,729	2,758	3,555	1,418
4	Less Sludge Disp. Power	0	0	0	0	0
5	Less Direct Gas	301,369	10,000	40,469	211,628	39,272
6	Less A&G Gas	21,115	9,827	4,027	5,190	2,071
7	Less Sludge Disp. Gas	0	0	0	0	0
8	Direct O&M Less Power	16,664,773	5,411,559	2,907,148	6,380,014	1,966,052
			16,664,773			

TABLE WW - 10A

ALLOCATION OF TEST YEAR OPERATION AND MAINTENANCE EXPENSE FOR THE COLLECTION SYSTEM TO FUNCTIONAL COST COMPONENTS

Line No.			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CHECK
			Total \$1,000	All Customers Capacity \$1,000	Volume \$1,000	Retail Capacity \$1,000	Storm Capacity \$1,000	Retail and Lower Merion Volume \$1,000	Capacity \$1,000	Retail & Springfield (excluding Wyndmoor) Volume \$1,000	Capacity \$1,000	Direct to Bucks County \$1,000	
			Somallo-22									Somallo-23	
1	Sewer Maintenance	x	28,699	28,699									
2	Inlet Cleaning	x	11,271				11,271						
	Pump Stations												
	Neill Drive												
3	Power	x	64.0					54.0	10.0				85 15
4	Gas	x	0.0					0.0	0.0				0 100
5	Other	x	111.4						111.4				
	Central Schuylkill												
6	Power	x	814							692	122		85 15
7	Gas	x	0							0	0		0 100
8	Other	x	156								156		
	All Other Pumping Stations												
9	Power	x	2,810		2,389	421							85 15
10	Gas	x	0		0	0							0 100
11	Other	x	12,449			12,449							0
12	GSI Maintenance	x	6,884	6,884									
13	Total Collection System		63,258	35,583	2,389	12,870	11,271	54	121	692	278	0	

Total Operating Expense from COS Table (\$) 293,863,906

Total Operating Expense in this page (\$1,000) \$293,865

ROUNDING ERROR - INCLUDE ON LINE 1 TOTAL !!!	\$1
USE ==>	
Test Cell ==>	\$63,258

NOTE: If rounding error is noted above, rerun the wtp sludge cost macro. The sludge cost in the financial plan and the scos analysis may not be aligned.

Total O&M Expense	310,673
Interest Expense	(349)
State & Federal Grant	(1,510)
Subtotal	308,814
Retail Misc Revenue	(5,287)
Subtotal	303,527
WTP Sludge	(9,662)
	293,865

Somallo-37	TABLE WW - 10A	63,258	a
Somallo-27	TABLE WW - 10B	39,826	b
Somallo-31	TABLE WW - 10C	32,225	b
Somallo-34	TABLE WW - 10D	18,207	b
Somallo-38	Admin & General	157,156	c

Total O&M Expense 310,672

**ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR PAYMENTS TO OTHER FUNDS,
INDUSTRIAL WASTE UNIT, AND ADMINISTRATIVE AND GENERAL EXPENSE TO
FUNCTIONAL COST COMPONENTS**

Line No.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	CHECK
		Total \$1,000	A&G \$1,000	A&G Volume	A&G Plant Investment	Equivalent Bills-All Customers	Streets	Direct to Excess Strength	Equivalent Meters-All Customers	Equivalent Services ≤2" Meter Customers	Wastewater Collection	Wastewater Collection GSI Maintenance	Direct to Stormwater	
1	Water Revenue Bureau (Class 100..Class 500)	15,490 Somallo-38				15,490 This page								
2	Joint Direct Expense (Class 100..Class 500) (a)		This page											
	Human Resources	16,349	16,349											
	Finance and Administration	30,346	5,346			0					25,000		0	
	Public Affairs	8,366	5,448	1,471		1,042					405		0	
	Planning & Engineering - Watersheds	11,421	9,981								495		945	
	Planning & Engineering - BLS	10,138	10,138											
	Planning & Engineering - P&R (incl E & ES)	5,732	0		5,732									
	Planning & Engineering - GSI Maintenance	7,704	0									7,704		
	Information Science & Tech.													
	CBIS	5,492				5,492								
	All Other	8,364	0	8,364										
	Total IST	13,856	0	8,364	0	5,492	0	0	0	0	0	0	0	
	Meter Shop Class 200 - AMR	880				880								
	Operations Cust. Svcs. Classes 100...500 (all)	3,521							3,521					
	Warranty Program Class 264	0							0					
	Subtotal	108,313	47,262	9,835	5,732	7,414	0	0	3,521	0	25,900	7,704	945	
	Plus Residual Fund Deposit	9,778	9,778											
	Plus Deposit From (To) RSF	(3,199)	(3,199)											
2	Joint Direct Expense (Class 100..Class 500) (a)	114,892 Somallo-4	53,841	9,835	5,732	7,414	0	0	3,521	0	25,900	7,704	945	
3	Payment to Law Department	2,735 Somallo-4	2,735											
4	Payment to Public Properties (b)	2,770 Somallo-4	2,770											
5	Payment to General Fund	4,219 Somallo-4	3,367											
6	Fleet, Mayors Office, Procurement	6,166	6,166											
7	Industrial Waste Unit (c)	3,866						1,276	2,590					
8	Capital (270) Pension & Benefits	7,018 Somallo-4	0		7,018									
	Total	157,156	68,879	9,835	12,750	22,904	852	1,276	6,111	0	25,900	7,704	945	
			A&G			x	x	x	x	x	x	x	x	
						Equiv. Bills	Streets	Excess Strgth	Equiv. Meters	Eq. M & S	Collection	Stormwater		

(a) Includes Human Resources, Finance and Administration, Plng & Engr and Info Sci & Tech, Public Affairs, and \$6,579,000.0 allowance for working capital (Residual Fund Deposit Plus Deposit From (To) Rate Stabilization Fund), SI-101

(b) Class 800: Payments to General Fund (Off. of Fleet Mgmt, Mayor's Off. of Info Svcs., Managing Dir. Off, Streets Dept., Pub. Prop., Licenses & Insp., Records Dept., Dir. of Fin., Rev. Dept., Procurement Dept., City Treas., Civil Svc. Comm., Personnel Dept., Auditing Dept.). SI-101

(c) Industrial Waste Unit

	100.0%	0.0%	33.0%	67.0%
--	--------	------	-------	-------

Allocation of Payment to General Fund - Streets			
	Percent	FY 2019 Test Year \$1,000	
PN 19289.100 SI-101			
Sewer Maintenance			
All Customers - Capacity	21.0%	179	x
Inlet Cleaning			
Retail - Storm Capacity	63.0%	537	x
Northeast Plant:			
Retl, Abington, Bensalem, Bucks Cty W&SA Cheltenham, Lower Moreland, and Lower Southampton			
Suspended Solids	5.3%	45	x
Southwest Plant:			
Retail, DELCORA, Lower Merion, Springfld (Excluding Wyndmoor), and Upper Darby			
Suspended Solids	5.4%	46	x
Southeast Plant:			
Retail and Springfield (Wyndmoor)			
Suspended Solids	5.3%	45	x
GSI Maintenance	0.0%	0	x
Total Payment to General Fund - Streets		852	

Customer Cost Allocation	Wastewater			Stormwater		
	Class 100	Overheads	Classes	Class 100	Overheads	Classes
	Direct	Calc from	200_400	Direct	Calc from	200_400
	\$	\$	\$	\$	\$	\$
Information Science & Technology						
CBIS	263,684	251,451	2,714,114	184,759	176,187	1,901,726
All Other	2,294,469	2,188,019	3,881,338	0	0	0
Total	2,558,154	2,439,470	6,595,452	184,759	176,187	1,901,726
Water Revenue Bureau						
Meter Reading	0	0		0	0	
All Other	6,047,656	9,107,718		4,237,474	6,382,527	
Total	6,047,656	9,107,700		4,237,474	6,381,600	
Finance & Admin - Customer						
Customer Costs				0		0
Customer Affairs - Customer						
Customer Costs			612,729			429,327

TABLES WW - 10E AND WH-2

TEST YEAR OPERATION AND MAINTENANCE EXPENSE
SUMMARY OF ALLOCATIONS TO FUNCTIONAL COST COMPONENTS

Line No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Admin & General Expenses			O&M Expense Deductions			Allocation of Administrative and General Expense								
	Direct Operation & Maintenance Expense	Direct Assignment	Allocation	Total Operation & Maintenance Expense	Less Interest Income	Less State and Federal Grants (a)	Net Operation & Maintenance Expense	Direct Operation & Maintenance Expense	Power Expense	Treatment Plant A&G Power Expense	Sludge Disposal Power	Gas Expense	Treatment Plant A&G Gas Expense	Sludge Disposal Gas	Direct O&M Less Power Less Gas Expense
	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
	Somallo-28, Somallo-32, Somallo-35, Somallo-37 & Somallo-38	Somallo-38	(16)+(17)+(18)	(1)+(2)+(3)	Prorate on Somallo-55 on (4)	Prorate on Somallo-55 on (4)	(4)-(5)-(6)	(1)+(2)	Somallo-30, Somallo-33, Somallo-36, & Somallo-37	Somallo-30, Somallo-33, & Somallo-36	Somallo-30, Somallo-33, & Somallo-36	Somallo-30, Somallo-33, & Somallo-36	Somallo-30, Somallo-33, & Somallo-36	Somallo-30, Somallo-33, & Somallo-36	(8)-(9)-(10)-(11) (12)-(13)-(14)
COLLECTION SYSTEM															
Sewer Maintenance															
1	All Customers - Capacity	28,699	26,079	30,577	85,355	96	85,259	54,778							54,778
2	Inlet Cleaning														
2	Retail - Storm Capacity	11,271	537	4,738	16,546	19	16,527	11,808							11,808
Neill Drive Pumping Station															
Retail and Lower Merion															
3	Total Volume	54	0	54	0	0	54	54	54			0			0
4	Total Capacity	121	54	175	0	0	175.4	121	10			0			111
Central Schuylkill Pumping Station															
Retail and Springfield (excl. Wyndmoor)															
5	Total Volume	692	0	692	1	0	691	692	692			0			0
6	Total Capacity	278	129	407	0	0	407	278	122			0			156
All Other Pumping Stations															
Retail															
7	Total Volume	2,389	0	2,389	3	0	2,386	2,389	2,389			0			0
8	Total Capacity	12,870	5,094	17,964	20	0	17,944	12,870	421			0			12,449
9	Direct to Bucks County	0	0	0	0	0	0	0	0			0			0
GSI Maintenance															
10	All Customers - Capacity	6,884	7,704	6,169	20,757	23	20,734	14,588							14,588
11	Total Collection Systems	63,258	34,320	46,761	144,339	162	144,177	97,578	3,688	0	0	0	0	0	93,890
WATER POLLUTION CONTROL PLANTS															
Northeast Plant:															
Retail and Cheltenham															
	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton															
12	Volume	595	0	595	1	7	587	595	595	0	0	0	0	0	0
13	Capacity	1,721	645	2,366	3	29	2,334	1,721	105	16	0	66	6	0	1,528
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton															
14	Volume	8,676	3,634	12,310	14	149	12,147	8,676	310	99	0	136	39	0	8,092
15	Capacity	2,646	1,112	3,758	4	46	3,708	2,646	55	35	0	149	14	0	2,393
16	Suspended Solids	13,303	45	5,512	18,860	21	18,610	13,348	380	48	0	205	19	0	12,696
17	BOD	12,885	3,977	16,862	19	205	16,638	12,885	4,100	40	0	170	16	0	8,559
Southwest Plant:															
Retail															
18	Volume	76	0	76	0	1	75	76	76	0	0	0	0	0	0
19	Capacity	283	191	474	1	6	467	283	13	1	0	30	2	0	237

Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby																
20	Volume	8,984		3,500	12,484	14	152	12,318	8,984	519	64	0	597	94	0	7,710
21	Capacity	3,082		1,137	4,219	5	51	4,163	3,082	92	21	0	435	31	0	2,503
22	Suspended Solids	11,048	46	4,329	15,423	15	187	15,221	11,094	304	37	0	767	55	0	9,931
23	BOD	8,753		2,398	11,151	13	135	11,003	8,753	3,003	24	0	483	34	0	5,209
Southeast Plant:																
Retail and Springfield (Wyndmoor)																
24	Volume	6,086		2,439	8,525	10	103	8,412	6,086	648	7	0	10	10	0	5,411
25	Capacity	3,069		1,451	4,520	5	55	4,460	3,069	114	3	0	40	4	0	2,908
26	Suspended Solids	6,687	45	2,724	9,456	11	115	9,330	6,732	87	4	0	212	5	0	6,424
27	BOD	2,365		934	3,299	4	40	3,255	2,365	357	1	0	39	2	0	1,966
28	Total Water Pollution Control Plants	90,259	136	33,983	124,378	140	1,510	122,728	90,395	10,758	400	0	3,339	331	0	75,567
CUSTOMER COSTS																
All Customers																
29	Equivalent Bills	22,904		7,861	30,765	35		30,730	22,904							22,904
30	Equivalent Meters															
30	Industrial Waste Unit	2,590		889	3,479	4		3,475	2,590							2,590
31	Other	3,521		1,208	4,729	5		4,724	3,521							3,521
32	Warranty Program (Retail Customers with ≤ 2" meters)	0		0	0	0		0	0							0
33	Excess Strength Wastewater - Direct	1,276		438	1,714	2		1,712	1,276							1,276
34	Stormwater - Direct	945		324	1,269	1		1,268	945							945
35	Total Customer Costs	31,236	0	10,720	41,956	47	0	41,909	31,236	0	0	0	0	0	0	31,236
36	Total Operation and Maintenance Expense	184,753	34,456	91,464	310,673	349	1,510	308,814	219,209	14,446	400	0	3,339	331	0	200,693

(a) Net Operation & Maintenance Expense is being developed for Wholesale Customers, therefore, Other Operating Revenue associated with retail customers is not included in this table. The table for retail service customers is on pages Somallo-54 and Retcos-3.

(Net O&M above)(O Op Rev)(Clean Str)(Wtr Sludge)

Check: 308,814,035 - 7,146,375 + 1,510,000 - 9,662,332 = 293,515,328

Total O&M to be derived from rates from Financial Plan Cost of Service equals 293,863,906

Check: Column (1) + Column (2) = 276,217,035

Total O&M Revenue Requirements from Financial Plan = 310,671,044 Net Revenue Requirement + Sludge O&M Costs + Misc Revenues
(1,990)

TABLE 0

**UNIT PUMPING AND TREATMENT OPERATION AND MAINTENANCE EXPENSE
APPLICABLE FOR CONTRACT SERVICE**

Test Year 2019

Line No.	(1) Net Operating Expense \$1,000	(2) Projected Test Year Units of Service	(3) Unit Operating Expense \$/unit	Total Volume Units Incl. Mcf Units-2	Total Volume Units Excl. Mcf Units-2	Adjusted Unit Operating Expense \$/unit
PUMPING STATIONS						
Neill Drive Pumping Station						
Retail and Lower Merion						
1	54	69,650 Mcf	0.7753	364,900	350,000	0.8083
2	175.4	370 Mcf/day	474.0541	2,788	2,728	484.4805
Central Schuylkill Pumping Station						
Retail and Springfield (excl. Wyndmoor)						
3	691	2,715,700 Mcf	0.2544	152,200	150,000	0.2581
4	407	22,110 Mcf/day	18.4080	407	397	18.8717
5	0	Direct	Direct	-	-	Direct
WATER POLLUTION CONTROL PLANTS						
Northeast Plant:						
Retail and Cheltenham						
	0	NA Mcf	0.000000	340,000	325,000	0.0000
	0	NA Mcf/day	0.000000	2,803	2,743	0.0000
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
6	587	5,597,000 Mcf	0.1049	1,438,500	1,383,000	0.1091
7	2,334	35,180 Mcf/day	66.3445	10,346	10,126	67.7859
Lower Southampton						
8	12,147	Units-4 & Units-7 7,564,000 Mcf	1.6059	1,778,500	1,708,000	1.6722
9	3,708	47,544 Mcf/day	77.9909	13,149	12,869	79.6878
10	18,610	87,641 1,000 lbs	212.3435	20,073	19,633	217.1024
11	16,638	67,015 1,000 lbs	248.2728	19,035	18,925	249.7159
Southwest Plant:						
Retail						
12	75	NA Mcf	0.000000	NA	NA	
13	467	NA Mcf/day	0.000000	NA	NA	
Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby						
14	12,318	Units-4 & Units-7 7,807,000 Mcf	1.5778	993,700	960,000	1.6332
15	4,163	49,071 Mcf/day	84.8363	6,289	6,149	86.7678
16	15,221	80,781 1,000 lbs	188.4205	10,095	9,884	192.4428
17	11,003	57,721 1,000 lbs	190.6239	8,847	8,795	191.7510
Southeast Plant:						
Retail and Springfield (Wyndmoor)						
18	8,412	Units-4 & Units-7 3,757,000 Mcf	2.2390	19,900	19,000	2.3451
19	4,460	23,614 Mcf/day	188.8710	167	167	188.8710
20	9,330	33,986 1,000 lbs	274.5248	166	160	284.8195
21	3,255	26,171 1,000 lbs	124.3743	125	124	125.3773

NA - Not Applicable
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017
TWNALLO1 - O&M Allocated to Abington	P.N. 135647.0100	February 11, 2018 9:00 a.m.				

TABLE WH - 18

OPERATING EXPENSE ALLOCATED TO ABINGTON TOWNSHIP

Test Year 2019

Line No.	COST COMPONENT	(1) Allocated Investment \$	(2) x	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$	CUSTOMER COSTS FOR TOWNSHIP CUSTOMERS																																																																																																																						
							(1) No. of Customers Metered Standardized	(2) Not Standardized	(3) Estimated Total No. of Samples Collected (c)	(4) Sampling Cost \$	(5) Billing Cost (b) \$	(6) Calibration & Certification Number of Sites	(7) Billing Cost (d) \$																																																																																																																
1	Sewer Maintenance (a)	490,000	x	19,600	0	19,600	<table border="1"> <thead> <tr> <th>Contract Customer</th> <th>Standardized</th> <th>Not Standardized</th> <th>Estimated Total No. of Samples Collected (c)</th> <th>Sampling Cost \$</th> <th>Billing Cost (b) \$</th> <th>Calibration & Certification Number of Sites</th> <th>Billing Cost (d) \$</th> </tr> </thead> <tbody> <tr> <td colspan="8">(Ref. PN 13321.300; B-31)</td> </tr> <tr> <td>Abington</td> <td>2</td> <td></td> <td>8</td> <td>800</td> <td>6,500</td> <td>1</td> <td>6,500</td> </tr> <tr> <td>Bensalem</td> <td>10</td> <td>2</td> <td>104</td> <td>10,400</td> <td>6,500</td> <td>5</td> <td>32,500</td> </tr> <tr> <td>Bucks County</td> <td></td> <td>1</td> <td>32</td> <td>3,200</td> <td>6,500</td> <td>1</td> <td>6,500</td> </tr> <tr> <td>Cheltenham</td> <td>3</td> <td></td> <td>12</td> <td>1,200</td> <td>6,500</td> <td>4</td> <td>26,000</td> </tr> <tr> <td>DELCORA</td> <td></td> <td>1</td> <td>365</td> <td>36,500</td> <td>6,500</td> <td></td> <td>0</td> </tr> <tr> <td>Lower Merion</td> <td>5</td> <td>2</td> <td>84</td> <td>8,400</td> <td>6,500</td> <td>6</td> <td>39,000</td> </tr> <tr> <td>Lower Moreland</td> <td>3</td> <td></td> <td>12</td> <td>1,200</td> <td>6,500</td> <td>2</td> <td>13,000</td> </tr> <tr> <td>Lower Southampton</td> <td></td> <td>1</td> <td>32</td> <td>3,200</td> <td>6,500</td> <td>1</td> <td>6,500</td> </tr> <tr> <td>Springfield (Excl. W)</td> <td>3</td> <td></td> <td>12</td> <td>1,200</td> <td>6,500</td> <td>3</td> <td>19,500</td> </tr> <tr> <td>Springfield (Wyndoor)</td> <td>3</td> <td></td> <td>12</td> <td>1,200</td> <td>6,500</td> <td></td> <td>0</td> </tr> <tr> <td>Upper Darby</td> <td>2</td> <td></td> <td>8</td> <td>800</td> <td>6,500</td> <td>1</td> <td>6,500</td> </tr> <tr> <td>Total</td> <td>31</td> <td>7</td> <td></td> <td>68,100</td> <td>71,500</td> <td></td> <td>156,000</td> </tr> </tbody> </table>							Contract Customer	Standardized	Not Standardized	Estimated Total No. of Samples Collected (c)	Sampling Cost \$	Billing Cost (b) \$	Calibration & Certification Number of Sites	Billing Cost (d) \$	(Ref. PN 13321.300; B-31)								Abington	2		8	800	6,500	1	6,500	Bensalem	10	2	104	10,400	6,500	5	32,500	Bucks County		1	32	3,200	6,500	1	6,500	Cheltenham	3		12	1,200	6,500	4	26,000	DELCORA		1	365	36,500	6,500		0	Lower Merion	5	2	84	8,400	6,500	6	39,000	Lower Moreland	3		12	1,200	6,500	2	13,000	Lower Southampton		1	32	3,200	6,500	1	6,500	Springfield (Excl. W)	3		12	1,200	6,500	3	19,500	Springfield (Wyndoor)	3		12	1,200	6,500		0	Upper Darby	2		8	800	6,500	1	6,500	Total	31	7		68,100	71,500		156,000
Contract Customer	Standardized	Not Standardized	Estimated Total No. of Samples Collected (c)	Sampling Cost \$	Billing Cost (b) \$	Calibration & Certification Number of Sites	Billing Cost (d) \$																																																																																																																						
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2	Volume	0.1049 \$/Mcf		102,500 Mcf		10,752	<table border="1"> <thead> <tr> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>10</td> <td>1</td> <td>3</td> <td>1</td> <td>5</td> <td>3</td> <td>1</td> <td>3</td> <td>3</td> <td>2</td> <td>31</td> </tr> <tr> <td>8</td> <td>104</td> <td>32</td> <td>12</td> <td>365</td> <td>84</td> <td>12</td> <td>32</td> <td>12</td> <td>12</td> <td>8</td> <td>7</td> </tr> <tr> <td>800</td> <td>10,400</td> <td>3,200</td> <td>1,200</td> <td>36,500</td> <td>8,400</td> <td>1,200</td> <td>3,200</td> <td>1,200</td> <td>1,200</td> <td>800</td> <td>68,100</td> </tr> <tr> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>6,500</td> <td>71,500</td> </tr> <tr> <td>1</td> <td>5</td> <td>1</td> <td>4</td> <td></td> <td>6</td> <td>2</td> <td>1</td> <td>3</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td>6,500</td> <td>32,500</td> <td>6,500</td> <td>26,000</td> <td>0</td> <td>39,000</td> <td>13,000</td> <td>6,500</td> <td>19,500</td> <td>0</td> <td>6,500</td> <td>156,000</td> </tr> </tbody> </table>							Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	2	10	1	3	1	5	3	1	3	3	2	31	8	104	32	12	365	84	12	32	12	12	8	7	800	10,400	3,200	1,200	36,500	8,400	1,200	3,200	1,200	1,200	800	68,100	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	71,500	1	5	1	4		6	2	1	3		1		6,500	32,500	6,500	26,000	0	39,000	13,000	6,500	19,500	0	6,500	156,000																												
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4	Volume	1.6059 \$/Mcf		102,500 Mcf		164,605	<table border="1"> <thead> <tr> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>164,605</td> <td>65,824</td> <td>218,926</td> <td>349,320</td> <td>13,800</td> <td>164,605</td> <td>65,824</td> <td>218,926</td> <td>349,320</td> <td>13,800</td> <td>164,605</td> <td>1,221,411</td> </tr> </tbody> </table>							Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	164,605	65,824	218,926	349,320	13,800	164,605	65,824	218,926	349,320	13,800	164,605	1,221,411																																																																																								
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6	Suspended Solids	212.3435 \$/1,000 lbs		1,031 1,000 lbs		218,926	<table border="1"> <thead> <tr> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> <td>218,926</td> </tr> </tbody> </table>							Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926																																																																																								
Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total																																																																																																																		
218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926	218,926																																																																																																																		
7	BOD	248.2728 \$/1,000 lbs		1,407 1,000 lbs		349,320	<table border="1"> <thead> <tr> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> <td>349,320</td> </tr> </tbody> </table>							Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320																																																																																								
Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total																																																																																																																		
349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320	349,320																																																																																																																		
8	Customer Costs			13,800		13,800	<table border="1"> <thead> <tr> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> <td>13,800</td> </tr> </tbody> </table>							Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800																																																																																								
Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total																																																																																																																		
13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800																																																																																																																		
9	Total Treatment			898,822	0	898,822	<table border="1"> <thead> <tr> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> <td>898,822</td> </tr> </tbody> </table>							Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822																																																																																								
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898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822	898,822																																																																																																																		
	LTCO O&M Costs						<table border="1"> <thead> <tr> <th>System Annual Cost</th> <th>Allocation</th> <th>Abington</th> <th>Bensalem</th> <th>Bucks County</th> <th>Cheltenham</th> <th>DELCORA</th> <th>Lower Merion</th> <th>Lower Moreland</th> <th>Lower Southampton</th> <th>Springfield (Excl. W)</th> <th>Springfield (Wyndoor)</th> <th>Upper Darby</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1,926,509</td> <td>0.5824%</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> <td>11,221</td> </tr> <tr> <td>1,914,220</td> <td>0.5824%</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> <td>11,149</td> </tr> </tbody> </table>							System Annual Cost	Allocation	Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total	1,926,509	0.5824%	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	1,914,220	0.5824%	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149																																																																						
System Annual Cost	Allocation	Abington	Bensalem	Bucks County	Cheltenham	DELCORA	Lower Merion	Lower Moreland	Lower Southampton	Springfield (Excl. W)	Springfield (Wyndoor)	Upper Darby	Total																																																																																																																
1,926,509	0.5824%	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221	11,221																																																																																																																
1,914,220	0.5824%	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149	11,149																																																																																																																
10	Amortization of SMIP/GARP Expenses (b)			11,221		11,221																																																																																																																							
11	LTCO O&M			11,149		11,149																																																																																																																							
12	Total Annual Operating Expense			921,192		921,192																																																																																																																							
13	Total - Rounded			921,000		921,000																																																																																																																							

(a) Based on investment in sewers serving Abington.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

(b) \$80 (Ref. PN 16281.300; SOM-59) for FY1992. For FY 2017 Test Year, USE: 100
(b) \$5000 (Ref. PN 16281.300; SOM-59) for FY1992. For FY 2019 Test Year, USE: 6,500
(c) Assume 8 samplings per connection per quarter for all non-standardized connections. Assume 1 sample per quarter per connection for all standardized connections. (Ref. PN 13321.300; B-31 & PN 16281.300; SOM-59)
(d) Assume a cost of calibration and quantification of \$6,500.0 per site per JRM email of 12/28/00. 6,500

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNALLO2 - O&M Allocated to Bensalem	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-42

TABLE WH - 19

OPERATING EXPENSE ALLOCATED TO BENSALEM TOWNSHIP
Test Year 2019

Line No.	(1) COST COMPONENT	(2)	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$
	Collection System:				
1	Sewer Maintenance (a)	x 4.00%	44,400	0	44,400
	NE Treatment Plants:				
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton				
2	Volume	0.1049 S/Mcf	18,420		18,420
3	Capacity	66.3445 S/Mcf/day	68,600		68,600
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton				
4	Volume	1.6059 S/Mcf	281,996		281,996
5	Capacity	77.9909 S/Mcf/day	80,643		80,643
6	Suspended Solids	212.3435 S/1,000 lbs	484,993		484,993
7	BOD	248.2728 S/1,000 lbs	673,812		673,812
8	Customer Costs		49,400		49,400
9	Total Treatment		1,702,264	0	1,702,264
	LTCP O&M Costs				
		System Annual Cost			
10	Amortization of SMIP/GARP Expenses (b)	1,926,509	0		0
11	LTCP O&M	1,914,220	0		0
9	Total		1,702,264	0	1,702,264
10	Total - Rounded		1,702,000	0	1,702,000

(a) Based on investment in sewers serving Bensalem.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a	
SWMAINT - Allocation of Sewer Maintenance O&M to Townships P.N. 135647.0100		February 11, 2018 9:00 a.m.						Somallo-43

ALLOCATION OF SEWER MAINTENANCE O&M TO TOWNSHIPS

Develop a ratio of total collection system (sewer mains) O&M divided by total collection system (sewer mains) investment and multiply the ratio by each respective township allocated sewer mains investment.

Total Collection System (Sewer Mains) O&M = \$1,000	Somallo-39	60,355	Excludes SMIP & GARP
Total Collection System (Sewer Mains) Investment =	Sptallo-5		
Mains (a) = \$1,000		1,491,269	
FHL Interceptors = \$1,000		3,679	
		1,494,948	
Total - \$1,000		1,494,948	

(a) Includes Stormwater Investment.

Ratio =	4.04%
Use	4.00%

Adjusted O&M
Expense

1 Abbington	921,000
2 Bensalem	1,702,000
3 Bucks County	7,368,000
4 Cheltenham	2,127,000
5 DELCORA	8,045,000
6 Lower Merion	2,275,000
7 Lower Moreland	480,000
8 Lower Southampton	2,184,000
9 Springfield (less W)	1,076,000
10 Springfield	158,000
11 Upper Darby	2,708,000

29,044,000

TABLE WH - 20

OPERATING EXPENSE ALLOCATED TO BUCKS COUNTY W&SA
Test Year 2019

Line No.	COST COMPONENT	(1) Allocated Investment \$	(2) x	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$
Collection System:						
1	Sewer Maintenance (a)	1,566,000	x	62,640	0	62,640
2	Direct to Bucks County			0		
NE Treatment Plants:						
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
3	Volume	0.1049	\$/Mcf	835,100 Mcf	87,602	87,602
4	Capacity	66.3445	\$/Mcf/day	6,556 Mcf/day	434,955	434,955
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
5	Volume	1.6059	\$/Mcf	835,100 Mcf	1,341,087	1,341,087
6	Capacity	77.9909	\$/Mcf/day	6,556 Mcf/day	511,308	511,308
7	Suspended Solids	212.3435	\$/1,000 lbs	10,702 1,000 lbs	2,272,500	2,272,500
8	BOD	248.2728	\$/1,000 lbs	9,939 1,000 lbs	2,467,583	2,467,583
9	Customer Costs			16,200		16,200
10	Total Treatment			7,193,875	0	7,193,875
LTCP O&M Costs						
		System Annual Cost	Allocation			
11	Amortization of SMIP/GARP Expenses (b)	1,926,509	4.5316%	87,302		87,302
12	LTCP O&M	1,914,220	4.5316%	86,745		86,745
13	Total			7,367,922	0	7,367,922
14	Total - Rounded			7,368,000	0	7,368,000

(a) Based on investment in sewers serving Bucks County.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 21

OPERATING EXPENSE ALLOCATED TO CHELTENHAM TOWNSHIP
Test Year 2019

Line No.	(1) COST COMPONENT	(2)	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$
	Collection System:				
1	Sewer Maintenance (a)	x 4.00%	20,880	0	20,880
	NE Treatment Plants:				
2	Retail and Cheltenham Volume	Operating Expense Per Unit S/mcf	340,000 Mcf	0	0
3	Capacity	Test Yr. No. of Units Units-2	2,803 Mcf/day	0	0
4	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton Volume		340,000 Mcf	546,006	546,006
5	Capacity		2,803 Mcf/day	218,608	218,608
6	Suspended Solids		2,893 1,000 lbs	614,310	614,310
7	BOD		2,416 1,000 lbs	599,827	599,827
8	Customer Costs			33,700	33,700
9	Total Treatment			2,033,331	2,033,331
	LTCP O&M Costs	System Annual Cost Allocation			
10	Amortization of SMIP/GARP Expenses (b)		1,926,509	2.428005%	46,776
11	LTCP O&M		1,914,220	2.428005%	46,477
12	Total			2,126,584	2,126,584
13	Total - Rounded			2,127,000	2,127,000

(a) Based on investment in sewers serving Cheltenham.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 24

OPERATING EXPENSE ALLOCATED TO LOWER MORELAND TOWNSHIP

Test Year 2019

Line No.	COST COMPONENT	(1) Allocated Investment \$ Spitallo-31	(2) x 4.00%	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$
Collection System:						
1	Sewer Maintenance (a)	705,000	x	28,200	0	28,200
NE Treatment Plants: Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
		Operating Expense Per Unit Somallo-40		Test Yr. No. of Units Units-2		
2	Volume	0.1049	\$/Mcf	57,800 Mcf	6,063	6,063
3	Capacity	66.3445	\$/Mcf/day	518 Mcf/day	34,366	34,366
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
4	Volume	1.6059	\$/Mcf	57,800 Mcf	92,821	92,821
5	Capacity	77.9909	\$/Mcf/day	518 Mcf/day	40,399	40,399
6	Suspended Solids	212.3435	\$/1,000 lbs	618 1,000 lbs	131,228	131,228
7	BOD	248.2728	\$/1,000 lbs	454 1,000 lbs	112,716	112,716
8	Customer Costs			20,700		20,700
9	Total Treatment			466,493	0	466,493
LTCP O&M Costs						
				System Annual Cost	Allocation	
10	Amortization of SMIP/GARP Expenses (b)			1,926,509	0.35883%	6,913
11	LTCP O&M			1,914,220	0.35883%	6,869
12	Total Annual Operating Expense			480,275	0	480,275
13	Total - Rounded			480,000	0	480,000

(a) Based on investment in sewers serving Lower Moreland.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 25

OPERATING EXPENSE ALLOCATED TO LOWER SOUTHAMPTON TOWNSHIP
Test Year 2019

Line No.	(1) COST COMPONENT	(2)	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$
	Collection System:				
1	Sewer Maintenance (a)	x 4.00%	408,800	0	408,800
	NE Treatment Plants: Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton				
2	Volume	0.1049 \$/Mcf	267,500 Mcf		28,061
3	Capacity	66.3445 \$/Mcf/day	1,394 Mcf/day		92,484
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton				
4	Volume	1.6059 \$/Mcf	267,500 Mcf		429,578
5	Capacity	77.9909 \$/Mcf/day	1,394 Mcf/day		108,719
6	Suspended Solids	212.3435 \$/1,000 lbs	2,545 1,000 lbs		540,414
7	BOD	248.2728 \$/1,000 lbs	2,105 1,000 lbs		522,614
8	Customer Costs			16,200	0
9	Total Treatment			2,146,870	0
	LTCP O&M Costs				
			System Annual Cost	Allocation	
10	Amortization of SMIP/GARP Expenses (b)		1,926,509	0.96317%	18,556
11	LTCP O&M		1,914,220	0.96317%	18,437
12	Total Annual Operating Expense				2,183,863
13	Total - Rounded				2,184,000

(a) Based on investment in sewers serving Lower Southampton.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 22

OPERATING EXPENSE ALLOCATED TO DELCORA
Test Year 2019

Line No.	COST COMPONENT	(1) Allocated Investment \$ Spitallo-38	(2) x	(3) 4.00%	(4) Allocated Operating Expense \$	(5) Adjustment for Contract \$	Total Adjusted Operating Expense \$
	Sewer Maintenance	0			0	0	0
	SW Treatment Plants: Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby	Operating Expense Per Unit Somallo-40		Test Yr. No. of Units Units-2			Operating Expense Per Unit
1	Volume	1,5778	\$/Mcf	1,200,000 Mcf	1,893,360		1,893,360
2	Capacity	84.8363	\$/Mcf/day	13,392 Mcf/day	1,136,128		1,136,128
3	Suspended Solids	188.4205	\$/1,000 lbs	13,029 1,000 lbs	2,454,931		2,454,931
4	BOD	190.6239	\$/1,000 lbs	11,307 1,000 lbs	2,155,384		2,155,384
5	Customer Costs				43,000		43,000
6	Total Treatment				7,682,803	0	7,682,803
	LTCP O&M Costs			<u>System Annual Cost</u>			
7	Amortization of SMIP/GARP Expenses (a)			1,926,509	9.44287%	181,918	181,918
8	LTCP O&M			1,914,220	9.44287%	180,757	180,757
9	Total Annual Operating Expense				8,045,478	0	8,045,478
10	Total - Rounded				8,045,000	0	8,045,000

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 26

OPERATING EXPENSE ALLOCATED TO SPRINGFIELD (EXCLUDING WYNDMOOR) TOWNSHIP
Test Year 2019

Line No.	(1) COST COMPONENT	(2) Allocated Investment \$	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$	
	Collection System:					
1	Sewer Maintenance (a)	768,000	x 4.00%	30,720	0	30,720
	Central Schuylkill Pump Station Retail and Springfield (excluding Wyndmoor)					
	Operating Expense Per Unit		Test Yr. No. of Units			
2	Volume	0.2544	\$/Mcf	152,200 Mcf	38,720	38,720
3	Capacity	18.4080	\$/Mcf/day	407 Mcf/day	7,492	7,492
	SW Treatment Plants: Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby					
4	Volume	1.5778	\$/Mcf	152,200 Mcf	240,141	240,141
5	Capacity	84.8363	\$/Mcf/day	407 Mcf/day	34,528	34,528
6	Suspended Solids	188.4205	\$/1,000 lbs	1,811 1,000 lbs	341,230	341,230
7	BOD	190.6239	\$/1,000 lbs	1,707 1,000 lbs	325,395	325,395
8	Customer Costs			27,200		27,200
9	Total Treatment			1,045,426	0	1,045,426
	LTCP O&M Costs		System Annual Cost Allocation			
10	Amortization of SMIP/GARP Expenses (a)		1,926,509 0.79320%	15,281		15,281
11	LTCP O&M		1,914,220 0.79320%	15,184		15,184
12	Total Annual Operating Expense			1,075,891	0	1,075,891
13	Total - Rounded			1,076,000	0	1,076,000

(a) Based on investment in sewers serving Springfield (excl. Wyndmoor).

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TWNALLO9 - O&M Allocated to Lower Merion	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Somallo-50

TABLE WH - 23

OPERATING EXPENSE ALLOCATED TO LOWER MERION TOWNSHIP
Test Year 2019

Line No.	(1) COST COMPONENT	(2)	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$
	Collection System:				
1	Sewer Maintenance (a)	x 4.00%	72,320	0	72,320
	Neill Drive Pump Station Retail and Lower Merion				
	Operating Expense Per Unit	Test Yr. No. of Units			
2	Volume	0.7753 \$/Mcf	14,300 Mcf		11,087
3	Capacity	474.0541 \$/Mcf/day	115 Mcf/day		54,516
	SW Treatment Plants: Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby				
4	Volume	1.5778 \$/Mcf	364,900 Mcf		575,739
5	Capacity	84.8363 \$/Mcf/day	2,788 Mcf/day		236,524
6	Suspended Solids	188.4205 \$/1,000 lbs	3,587 1,000 lbs		675,864
7	BOD	190.6239 \$/1,000 lbs	3,124 1,000 lbs		595,509
8	Customer Costs		53,900		53,900
9	Total Treatment		2,275,459	0	2,275,459
	LTCP O&M Costs				
		System Annual Cost	Allocation		
10	Amortization of SMIP/GARP Expenses (a)	1,926,509	0.0000%	0	0
11	LTCP O&M	1,914,220	0.0000%	0	0
12	Total Annual Operating Expense		2,275,459	0	2,275,459
13	Total - Rounded		2,275,000	0	2,275,000

(a) Based on investment in sewers serving Lower Merion.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 28

OPERATING EXPENSE ALLOCATED TO UPPER DARBY TOWNSHIP
Test Year 2019

Line No.	(1) COST COMPONENT	(2)	(3) Allocated Operating Expense	(4) Adjustment for Contract	(5) Total Adjusted Operating Expense
	Allocated Investment \$		\$	\$	\$
	Collection System:				
1	Sewer Maintenance (a)	x 4.00%	28,920	0	28,920
	SW Treatment Plants: Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby				
	Operating Expense Per Unit	Test Yr. No. of Units			
	Somallo-40	Units-2			
2	Volume	476,600 Mcf	751,979		751,979
3	Capacity	3,094 Mcf/day	262,484		262,484
4	Suspended Solids	4,697 1,000 lbs	885,011		885,011
5	BOD	4,016 1,000 lbs	765,546		765,546
6	Customer Costs		13,800		13,800
7	Total Treatment		2,707,740	0	2,707,740
	LTCP O&M Costs	System Annual Cost Allocation			
8	Amortization of SMIP/GARP Expenses (a)	1,926,509 0.00000%	0		0
9	LTCP O&M	1,914,220 0.00000%	0		0
10	Total Annual Operating Expense		2,707,740	0	2,707,740
11	Total - Rounded		2,708,000	0	2,708,000

(a) Based on investment in sewers serving Upper Darby.

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 27

OPERATING EXPENSE ALLOCATED TO SPRINGFIELD (INCLUDING WYNDMOOR) TOWNSHIP
Test Year 2019

Line No.	COST COMPONENT	(1) Allocated Investment \$	(2) x	(3) Allocated Operating Expense \$	(4) Adjustment for Contract \$	(5) Total Adjusted Operating Expense \$	
	Collection System:	Sptallo-35					
1	Sewer Maintenance (a)	331,000	x	4.00%	13,240	0	13,240
	SE Treatment Plants:	Somallo-40					
	Retail, Springfield (Wyndmoor)						
	Volume	2,2390	\$/Mcf	19,900 Mcf	44,556		44,556
2	Capacity	188,8710	\$/Mcf/day	167 Mcf/day	31,541		31,541
3	Suspended Solids	274,5248	\$/1,000 lbs	166 1,000 lbs	45,571		45,571
4	BOD	124,3743	\$/1,000 lbs	125 1,000 lbs	15,547		15,547
5	Customer Costs				7,700		7,700
6	Total				158,155	0	158,155
7	Total - Rounded				158,000	0	158,000

(a) Based on investment in sewers serving Springfield (incl. Wyndmoor).

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

If changes are made to range SUMMARY, transfer changes to range SUMMARY in File RETAIL.

**SUMMARY OF OPERATION AND MAINTENANCE EXPENSE
ALLOCATED TO CONTRACT CUSTOMERS**

Line No.	Abington \$	Bensalem \$	Bucks County \$	Cheltenham \$	Lower Moreland \$	Lower Southampton \$	DELCORA \$	Lower Merion \$	Springfield w/o Wyndmoor \$	Upper Darby \$	Springfield (Wyndmoor) \$	Total \$
	Somallo-41	Somallo-42	Somallo-44	Somallo-45	Somallo-46	Somallo-47	Somallo-48	Somallo-50	Somallo-49	Somallo-51	Somallo-52	
COLLECTION SYSTEM												
Sewer Maintenance												
1	30,821	44,400	149,942	67,656	35,113	427,356	181,918	72,320	46,001	28,920	13,240	1,097,687
All Customers - Capacity (Includes SMIP/GARP and LTCP)												
2												0
Inlet Cleaning												
Retail - Storm Capacity												
3								11,087	38,720			49,807
Pumping Stations												
4								54,516	7,492			62,008
Total Volume												
5			0									0
Total Capacity												
6	11,149	0	86,745	46,477	6,869	18,437	180,757	0	15,184	0		365,618
Direct to Bucks County												
LTCP O&M												
7	41,970	44,400	236,687	114,133	41,982	445,793	362,675	137,923	107,397	28,920	13,240	1,575,120
Total Collection System												
8	42,000	44,000	237,000	114,000	42,000	446,000	363,000	138,000	107,000	29,000	13,000	1,575,000
Total Coll. System Rounded to \$1,000												
WATER POLLUTION CONTROL PLANTS												
Northeast Plant:												
Retail and Cheltenham												
9				0								0
Volume												
10				0								0
Capacity												
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton												
11	10,752	18,420	87,602		6,063	28,061						150,898
Volume												
12	55,995	68,600	434,955		34,366	92,484						686,400
Capacity												
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton												
13	164,605	281,996	1,341,087	546,006	92,821	429,578						2,856,093
Volume												
14	65,824	80,643	511,308	218,608	40,399	108,719						1,025,501
Capacity												
15	218,926	484,993	2,272,500	614,310	131,228	540,414						4,262,371
Suspended Solids												
16	349,320	673,812	2,467,583	599,827	112,716	522,614						4,725,872
BOD												
17	865,422	1,608,464	7,115,035	1,978,751	417,593	1,721,870	0	0	0	0	0	13,707,135
Total Northeast Plant												

Southwest Plant:													
18	Retail												
19	Volume												
	Capacity												
Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby													
20	Volume						1,893,360	575,739	240,141	751,979		3,461,219	
21	Capacity						1,136,128	236,524	34,528	262,484		1,669,664	
22	Suspended Solids						2,454,931	675,864	341,230	885,011		4,357,036	
23	BOD						2,155,384	595,509	325,395	765,546		3,841,834	
24	Total Southwest Plant	0	0	0	0	0	7,639,803	2,083,636	941,294	2,665,020	0	13,329,753	
Southeast Plant:													
Retail and Springfield (Wyndmoor)													
25	Volume										44,556	44,556	
26	Capacity										31,541	31,541	
27	Suspended Solids										45,571	45,571	
28	BOD										15,547	15,547	
29	Total Southeast Plant	0	0	0	0	0	0	0	0	0	137,215	137,215	
30	Total Water Pollution Control Plants	865,422	1,608,464	7,115,035	1,978,751	417,593	1,721,870	7,639,803	2,083,636	941,294	2,665,020	137,215	27,174,103
31	Total WPCP Rounded to \$1,000	865,000	1,608,000	7,115,000	1,979,000	418,000	1,722,000	7,640,000	2,084,000	941,000	2,665,000	137,000	27,174,000
32	CUSTOMER COSTS	13,800	49,400	16,200	33,700	20,700	16,200	43,000	53,900	27,200	13,800	7,700	295,600
33	Customer Costs Rounded to \$1,000	14,000	49,000	16,000	34,000	21,000	16,000	43,000	54,000	27,000	14,000	8,000	296,000
34	Total Allocated O&M	921,192	1,702,264	7,367,922	2,126,584	480,275	2,183,863	8,045,478	2,275,459	1,075,891	2,707,740	158,155	29,044,823
35	Total Rounded From Somallo-44	921,000	1,702,000	7,368,000	2,127,000	480,000	2,184,000	8,045,000	2,275,000	1,076,000	2,708,000	158,000	29,044,000
SMIP/GARP													

TABLE WW - 10

**OPERATION AND MAINTENANCE EXPENSE ALLOCATED TO
RETAIL SERVICE CUSTOMERS
TEST YEAR 2019**

Line No.	(1)	(2)	(3)	(4)	(5)	(6)	(5)	(5)	Breakdown of Wholesale Allocation			
	O&M Expense Deductions			Net Operation and Maintenance Expense Allocated To Retail Service Customers Somallo-39 \$1,000	Less Operation and Maintenance Expense Allocated to Contract Service Somallo-53 Somallo-41 \$1,000	Operation and Maintenance Expense Allocated to Retail Service Somallo-55 on Col. (3) \$1,000	Less Retail Operation & Maintenance Expense Deductions: Other Operating Revenue Somallo-55 on Col. (3) \$1,000	Net Operation and Maintenance Expense To Be Allocated To Retail Service Somallo-55 on Col. (3) \$1,000	O&M Expense Deductions			
	Total Operation & Maintenance Expense \$1,000	Less Interest Income \$1,000	Less State and Federal Grants (a) \$1,000						Total Operation & Maintenance Expense \$1,000	Less Interest Income \$1,000	Less State and Federal Grants (a) \$1,000	
COLLECTION SYSTEM												
Sewer Maintenance												
1	All Customers - Capacity	85,355	96	0	85,259	1,094	84,165	1,591	82,574	1,095	1	0
Inlet Cleaning												
2	Retail - Storm Capacity	16,546	19	0	16,527		16,527	312	16,215	0	0	0
Neill Drive Pumping Station												
Retail and Lower Merion												
3	Total Volume	54	0	0	54	11	43	1	42	11	0	0
4	Total Capacity	175	0	0	175	55	120	2	118	55	0	0
Central Schuylkill Pumping Station												
Retail and Springfield (excl. Wyndmoor)												
5	Total Volume	692	1	0	691	39	652	12	640	39	0	0
6	Total Capacity	407	0	0	407	7	400	8	392	7	0	0
All Other Pumping Stations												
Retail												
7	Total Volume	2,389	3	0	2,386		2,386	45	2,341	0	0	0
8	Total Capacity	17,964	20	0	17,944		17,944	339	17,605	0	0	0
9	Direct to Bucks County	0	0	0	0	0	0	0	0	0	0	0
GSI Maintenance (LTCP O&M)												
10	All Customers - Capacity	20,757	23	0	20,734	366	20,368	385	19,983	366	0	(0)
11	Total Collection Systems	144,339	162	0	144,177	1,572	142,605	2,695	139,910	1,574	2	0
WATER POLLUTION CONTROL PLANTS												
Northeast Plant:												
Retail and Cheltenham												
12	Volume	0	0	0	0	0	0	0	0	0	0	0
13	Capacity	0	0	0	0	0	0	0	0	0	0	0
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton												
14	Volume	595	1	7	587	151	436	8	428	153	0	2
15	Capacity	2,366	3	29	2,334	686	1,648	31	1,617	695	1	9
Lower Southampton												
16	Volume	12,310	14	149	12,147	2,856	9,291	176	9,115	2,894	3	35
17	Capacity	3,758	4	46	3,708	1,026	2,682	51	2,631	1,040	1	13
18	Suspended Solids	18,860	21	229	18,610	4,262	14,348	274	14,074	4,319	5	52
19	BOD	16,862	19	205	16,638	4,726	11,912	225	11,687	4,790	5	58
Southwest Plant:												
Retail												
20	Volume	76	0	1	75	0	75	1	74	0	0	0
21	Capacity	474	1	6	467	0	467	9	458	0	0	0

	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby											
22	Volume	12,484	14	152	12,318	3,461	8,857	167	8,690	3,508	4	43
23	Capacity	4,219	5	51	4,163	1,670	2,493	47	2,446	1,692	2	20
24	Suspended Solids	15,423	15	187	15,221	4,357	10,864	205	10,659	4,415	4	54
25	BOD	11,151	13	135	11,003	3,842	7,161	135	7,026	3,894	5	47
	Southeast Plant:											
	Retail and Springfield (Wyndmoor)											
26	Volume	8,525	10	103	8,412	45	8,367	158	8,209	46	0	1
27	Capacity	4,520	5	55	4,460	32	4,428	84	4,344	32	0	0
28	Suspended Solids	9,456	11	115	9,330	46	9,284	175	9,109	47	0	1
29	BOD	3,299	4	40	3,255	16	3,239	61	3,178	16	0	0
30	Total Water Pollution Control Plants	124,378	140	1,510	122,728	27,176	95,552	1,807	93,745	27,541	31	334
	CUSTOMER COSTS											
	All Customers											
31	Equivalent Bills	30,765	35	0	30,730	228	30,502	576	29,926	228	0	(0)
	Equivalent Meters											
32	Industrial Waste Unit	3,479	4	0	3,475	68	3,407	64	3,343	68	0	(0)
33	Other	4,729	5	0	4,724	0	4,724	89	4,635	0	0	0
34	Warranty Program (Retail Customers with ≤ 2" meters)	0	0	0	0	0	0	0	0	0	0	0
35	Excess Strength Wastewater - Direct	1,714	2	0	1,712	0	1,712	32	1,680	0	0	0
36	Stormwater - Direct	1,269	1	0	1,268	0	1,268	24	1,244	0	0	0
37	Total Customer Costs	41,956	47	0	41,909	296	41,613	785	40,828	296	0	(0)
38	Total Operation and Maintenance Expense	310,673	349	1,510	308,814	29,044	279,770	5,287	274,483	29,411	33	334
					308,814	29,044	279,770	5,287	274,483			
									303,527			

SCOS17_19.XLS

RETCOS

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. Ia
RETIndex - Index	P.N. 135647.0100	February 11, 2018 1:40 p.m.					Retcos-1

The "Retcos" worksheet develops unit costs of service and allocates the retail cost of service among retail customer classes. It summarizes the allocated cost of service for contract customers, and it summarizes the cost of providing stormwater treatment.

Range	Description	Page Number	Table
RETIndex	Index	Retcos-1	
WWUnits	Units Of Wastewater Service	Retcos-2	
TOTOM	Total Contract and Retail O&M	Retcos-3	
DEPR	Test Year Depreciation	Retcos-4	
COLLSYS	Allocation Of Costs Between Sanitary and Stormwater	Retcos-5	
CONTRPLN	Depreciable Plant Allocable To Contract Customers	Retcos-6	TABLE WH - 1
RTLDPLNT	Determination Of Depreciable Plant Allocable To Retail Service	Retcos-7	
WWUCOS	Unit Costs Of Retail Wastewater Service	Retcos-8	TABLE WW - 11 AND TABLE WW - 12
ICROR	Inside City Rate Of Return	Retcos-9	
LUMPSUM	Annual Lump Sum Costs For Sewer Maintenance, Customer Related Costs, And Capital Costs	Retcos-10	
CTRCTCOS	Summary Of Allocated Cost Of Service For Contract Customers	Retcos-11	TABLE WH - 29
RTLCC	Allocation Of O&M Expense To Retail Service - Customer Costs	Retcos-12	
RTLPLNT	Allocation Of O&M Expense To Retail Service - Plant	Retcos-13	
RTLII	Allocated Infiltration/Inflow Costs for Inside City Retail Service	Retcos-14	TABLE WW - 14 [Columns (2) and (3)]
RTLCCALLO	Allocation Of Capital Costs To Retail Service	Retcos-15	
RLCOS	Retail Cost Of Service	Retcos-16	
RLCOSSUM	Retail Cost Of Service Summary	Retcos-17	
XXXXX	PAGE NOT IN USE	Retcos-18	
RLCOLL	Allocation Of O&M Expense To Retail Service - Collection System	Retcos-19	
GSCOS	Residential Excluding Senior Citizens Cost Of Service	Retcos-20	TABLE WW - 13 [Line 1]
XXXXX	PAGE NOT IN USE	Retcos-21	
RTLINVEST	Retail Sewer Investment And Annual Costs Related To Sanitary Wastewater And Storm Water Functions	Retcos-22	
RTLPINVEST	Plant Investment Allocated To Retail Service Customers	Retcos-23	TABLE WW - 9
CONTINV	DELCORA Contributed Investment	Retcos-24	
SWCOS	Storm Water Cost Summary	Retcos-25	

This table is designed to calculate Water Treatment Plant Sludge for each year of the study period. Whenever revenue requirements are changed, the "Update Table" macro button will need to be invoked several times in order for the fiscal year sludge calculations to stabilize and remain unchanged. For example, if the test year is the second year of the study period, the "Update Table" macro button will need to be invoked at least four times until the sludge value for that test year stops changing. It is suggested that the "Update Table" macro button be invoked until all years stabilize. NOTE: For the macro to operate properly, there must be positive beginning values for Water Treatment Plant Sludge below. IF ERR is in the row below, the macro will not work. Replace ERR with a reasonable value, and the macro should work. **The linked Financial Plan & WCOS model files must be opened to run the macro**
 After running the macro, copy the Water Treatment Plant Sludge values to the Previous Iteration's Values line. Do the same with O&M values.

Update Table	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Test Year
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
O&M Portion of Line Below	8,608,093	8,597,235	9,660,764	9,944,314	10,610,962	11,085,791	11,785,439	12,198,858	12,701,412	13,230,019	13,784,398	14,302,812	14,961,300	15,526,646	16,143,741	9,660,764
Water Treatment Plant Sludge	12,328,588	12,604,905	13,427,971	14,031,480	14,845,919	15,657,053	16,807,228	17,172,022	18,215,547	19,379,982	20,623,387	21,522,490	23,298,371	24,299,684	25,611,915	
SW Allocation	40.9%	41.6%	41.2%	41.4%	41.2%	41.2%	41.3%	41.1%	41.3%	41.6%	41.8%	41.9%	42.3%	42.4%	42.5%	41.2%
Table last updated: Monday, January 15, 2018 - 12:16:00 PM																
Previous Allocations																
O&M Portion of Line Below	8,608,093	8,597,235	9,660,764	9,944,314	10,610,962	11,085,791	11,785,439	12,198,858	12,701,412	13,230,019	13,784,398	14,302,812	14,961,300	15,526,646	16,143,741	
Water Treatment Plant Sludge	12,328,588	12,604,905	13,427,971	14,031,480	14,845,919	15,657,053	16,807,228	17,172,022	18,215,547	19,379,982	20,623,387	21,522,490	23,298,371	24,299,684	25,611,915	
SW Allocation	40.9%	41.6%	41.2%	41.4%	41.2%	41.2%	41.3%	41.1%	41.3%	41.6%	41.8%	41.9%	42.3%	42.4%	42.5%	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WWUnits - Units Of Wastewater Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-2

Customer Class	Test Year Mcf	Capacity Flow Rate		Strength		Equivalent Bills	Customer Equivalent Meters	Equivalent Service	Bills
		Collection System Mcf/day	Pumping and Treatment Mcf/day	Suspended Solids 1,000 lbs	BOD 1,000 lbs				
	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>	<u>Units-6</u>
Residential	2,987,411	32,736	12,276	47,536	49,400	4,984,873	429,455	415,136	4,971,672
Commercial	1,421,736	15,581	5,843	22,623	23,510	471,319	84,207	36,111	418,812
Industrial	82,254	901	338	1,309	1,360	15,186	3,908	1,125	12,384
Public Utilities	10,272	113	42	163	170	2,700	1,069	138	1,620
Senior Citizens	109,642	1,202	451	1,745	1,813	256,420	21,375	21,368	256,416
Wastewater Only	73,150	802	301	1,164	1,210	1,532	541	79	924
Groundwater	210,000	4,603	1,438	917	131	0	0	0	0
Surcharge	0	0	0	2,340	11,520	0	0	0	0
Housing Authority	157,846	1,730	649	2,512	2,610	70,386	8,077	5,588	67,428
Charities & Schools	178,825	1,960	735	2,845	2,957	46,692	16,817	2,214	29,088
Hospital/University	276,290	3,028	1,135	4,396	4,569	15,457	8,295	230	5,112
Hand Bill	405,375	4,442	1,666	6,450	6,703	9,364	5,181	112	2,904
xxxxxxxxxx	0	0	0	0	0	0	0	0	0
Water Treatment Plant Sludge	292,800	3,209	1,203	26,000	0	0	0	0	0
Fire Meters	4,275	47	18	68	71	1,301	380	82	924
Scheduled (Flat Rate)	23	0	0	0	0	36	3	3	36
xxxxxxxxxx	0	0	0	0	0	0	0	0	0
Subtotal Retail Sanitary	6,209,900	70,354	26,095	120,068	106,024	5,875,266	579,308	482,187	5,767,320
I/I	8,926,000	195,638	61,137	38,978	5,568				
Total Retail Service	15,135,900	265,992	87,232	159,046	111,592	5,875,266	579,308	482,187	5,767,320
Contract Service:	<u>Units-13</u>	<u>Units-13</u>	<u>Units-13</u>	<u>Units-13</u>	<u>Units-13</u>				
Sanitary	3,887,000	32,577	32,577	42,706	39,151				
I/I	105,100	420	420	656	164				
Total	3,992,100	32,997	32,997	43,362	39,315				
Total System	19,128,000	298,989	120,229	202,408	150,907				

(a) Adjusted to exclude 5% not entering sewers.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TOTOM - Total Contract and Retail O&M	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-3

**OPERATION AND MAINTENANCE EXPENSE ALLOCATED TO
RETAIL SERVICE CUSTOMERS**

Test Year 2019

Line No.	(1) Net Operation & Maintenance Expense \$1,000 <u>Somallo-54</u>	(2) Operation and Maintenance Expense Allocated to Contract Service \$1,000 <u>Somallo-54</u>	(3) Operation and Maintenance Expense Allocated to Retail Service \$1,000	(4) Retail O&M Expense Deductions - Other Operating Revenue \$1,000 Prorate on Col. (3) <u>Somallo-54</u>	(5) Net O&M Expense To Be Allocated To Retail Service \$1,000	
COLLECTION SYSTEM						
Sewer Maintenance						
1	All Customers - Capacity	85,259	1,094	84,165	1,591	82,574
Inlet Cleaning						
2	Retail - Storm Capacity	16,527	0	16,527	312	16,215
Neill Drive Pumping Station						
Retail and Lower Merion						
3	Total Volume	54	11	43	1	42
4	Total Capacity	175	55	120	2	118
Central Schuylkill Pumping Station						
Retail and Springfield (excl. Wyndmoor)						
5	Total Volume	691	39	652	12	640
6	Total Capacity	407	7	400	8	392
All Other Pumping Stations						
Retail						
7	Total Volume	2,386	0	2,386	45	2,341
8	Total Capacity	17,944	0	17,944	339	17,605
9	Direct to Bucks County	0	0	0	0	0
10	LTCP O&M	20,734	366	20,368	385	19,983
11	Total Collection Systems	144,177	1,572	142,605	2,695	139,910
WATER POLLUTION CONTROL PLANTS						
Northeast Plant:						
Retail and Cheltenham						
12	Volume	0	0	0	0	0
13	Capacity	0	0	0	0	0
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
14	Volume	587	151	436	8	428
15	Capacity	2,334	686	1,648	31	1,617
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
16	Volume	12,147	2,856	9,291	176	9,115
17	Capacity	3,708	1,026	2,682	51	2,631
18	Suspended Solids	18,610	4,262	14,348	274	14,074
19	BOD	16,638	4,726	11,912	225	11,687

Southwest Plant:						
Retail						
20	Volume	75	0	75	1	74
21	Capacity	467	0	467	9	458
Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby						
22	Volume	12,318	3,461	8,857	167	8,690
23	Capacity	4,163	1,670	2,493	47	2,446
24	Suspended Solids	15,221	4,357	10,864	205	10,659
25	BOD	11,003	3,842	7,161	135	7,026
Southeast Plant:						
Retail and Springfield (Wyndmoor)						
26	Volume	8,412	45	8,367	158	8,209
27	Capacity	4,460	32	4,428	84	4,344
28	Suspended Solids	9,330	46	9,284	175	9,109
29	BOD	3,255	16	3,239	61	3,178
30	Total Water Pollution Control Plants	122,728	27,176	95,552	1,807	93,745
CUSTOMER COSTS						
All Customers						
31	Equivalent Bills	30,730	228	30,502	576	29,926
Equivalent Meters						
32	Industrial Waste Unit	3,475	68	3,407	64	3,343
33	Other	4,724	0	4,724	89	4,635
34	Warranty Program (Retail Customers with ≤ 2" meters)	0	0	0	0	0
35	Excess Strength Wastewater - Direct	1,712	0	1,712	32	1,680
36	Stormwater - Direct	1,268	0	1,268	24	1,244
37	Total Customer Costs	41,909	296	41,613	785	40,828
Somalo-54						
38	Total Operation and Maintenance Expense	308,814	29,044	279,770	5,287	274,483
		308,814	29,044	279,770	5,287	274,483
						274,483 0 CHECK

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. la
DEPR - Test Year Depreciation	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-4

TEST YEAR DEPRECIATION

Line No.	Cost Component	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)
		Total Investment \$	Contrib. Plant \$	Land \$	Depreciable Plant \$	Annual Depreciation Rate \$	Annual Depreciation \$	Contrib. Plant \$1,000	Land \$1,000	
		<u>Splallo-24</u>	(7) * 1,000	(8) * 1,000	(1) - (2) - (3)		(4) * (5)	<u>Splallo-44</u>	<u>Splallo-44</u>	
	Collection System									
1	Sewers-Capacity	1,494,948,000	6,968,889	1,816,000	1,486,163,111	2.0%	29,723,000	6,969	1,816	
2	Pumping Stations Capacity	30,239,000	190,000		30,049,000	2.5%	751,000	190	0	
3	LTCP Investment	54,692,000	0		54,692,000	2.0%	1,094,000	0	0	
4	Total Collection System	1,579,879,000	7,158,889	1,816,000	1,570,904,111		31,568,000	7,159	1,816	
	Water Pollution Control Plants									
	Northeast Plant									
	Retail, Abington, Bensalem, Bucks Cty, W&SA, Cheltenham, Lower Moreland, & Lower Southampton									
5	Volume	67,307,000	9,617,444	244,000	57,445,556			9,617	244	
6	Capacity	31,988,000	3,659,833	116,000	28,212,167			3,660	116	
7	Suspended Solids	72,697,000	7,310,000	264,000	65,123,000			7,310	264	
8	BOD	94,462,000	13,578,833	342,000	80,541,167			13,579	342	
9	Total Northeast Plant	266,454,000	34,166,110	966,000	231,321,890	2.5%	5,783,000	34,166	966	
	Southwest Plant									
	Retail, DELCORA, Lower Merion, Springfield (excl. Wyndmoor), & Upper Darby									
10	Volume	70,838,000	28,626,000	222,000	41,990,000			28,626	222	
11	Capacity	39,761,000	8,088,000	125,000	31,548,000			8,088	125	
12	Suspended Solids	59,757,000	14,177,000	187,000	45,393,000			14,177	187	
13	BOD	53,583,000	22,990,000	168,000	30,425,000			22,990	168	
14	Total Southwest Plant	223,939,000	73,881,000	702,000	149,356,000	2.5%	3,734,000	73,881	702	
	Southeast Plant									
	Retail & Springfield (Wyndmoor)									
15	Volume	46,556,000		51,000	46,505,000			0	51	
16	Capacity	49,385,000		54,000	49,331,000			0	54	
17	Suspended Solids	25,344,000		28,000	25,316,000			0	28	
18	BOD	25,288,000		27,000	25,261,000			0	27	
19	Total Southeast Plant	146,573,000		160,000	146,413,000	2.5%	3,660,000	0	160	
20	Total Allocated Treatment Plants	636,966,000	108,047,110	1,828,000	527,090,890	2.5%	13,177,000	108,047	1,828	
21	Total Allocated System Investment	2,216,845,000	115,205,999	3,644,000	2,097,995,001		44,745,000	115,206	3,644	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
COLLSYS - Allocation Of Costs Between Sanitary and Stormwater	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-5

Allocation of Collection System Investment in Mains to Sanitary and Stormwater

The estimated split of Retail Sewer Investment to Sanitary and Stormwater is based on the estimated unit costs associated with Sanitary and Stormwater Sewer Construction Costs.

	Total	Sanitary	Stormwater
Retail Sewer Investment (including LTCP Investment)	100%	36%	64%
	<u>Retcos-6</u>		
	\$1,521,203,000	\$547,633,100	\$973,569,900
Less Land	<u>Retcos-4</u>		
	\$1,816,000		
Retail Depreciable Sewer Investment	\$1,519,387,000	\$546,979,300	\$972,407,700

Allocation of O&M Expense to Sanitary and Stormwater

Retail Sewer Maintenance allocated to Sanitary and Stormwater based on ratio of dry weather and wet weather volume (40% to Sanitary and 60% to Stormwater).
Assign Inlet Cleaning O&M 100% to Stormwater.

	Total	Sanitary	Stormwater
Collection System	100%	40%	60%
Retail Sewer Maintenance O&M - Capacity	<u>Retcos-3</u>		
	\$82,574,000	\$33,029,600	49,544,400
Inlet Cleaning O&M - Capacity	<u>Retcos-3</u>		
	\$16,215,000		16,215,000
LTCP O&M	<u>Retcos-3</u>		
	\$19,983,000	7,993,200	11,989,800
Total Collection System	\$118,772,000	\$41,022,800	\$77,749,200
Equivalent Bills - All Customers			
Customer O&M - Equivalent Bills	This page	This page	This page
	\$29,925,836	\$18,069,000	\$11,856,836

Equivalent Bills - All Customers	Total	Sanitary	Stormwater
	\$	\$	\$
		<u>Somallo-38</u>	<u>Somallo-38</u>
Water Revenue Bureau	15,490,000	9,108,000	6,382,000
Joint Direct Expense			
CBIS	5,492,000	3,229,000	2,263,000
Other Joint Direct Expense			
Payment to Public Properties	0	0	
Meter Shop Class 200 - AMR	879,780	879,780	
Finance & Admin - Customer	0	0	0
Customer Affairs - Customer	1,042,056	612,729	429,327
Subtotal	22,903,836	13,829,509	9,074,327
Total Including Allocated A&G and Deduction of Other Operating Revenue	<u>Retcos-3</u>		
Prorated on Subtotal Above	29,925,836	18,069,000	11,856,836

Assigned to A&G (Not a direct customer cost)

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. la
CONTRPLNT - Depreciable Plant Allocable To Contract Customers	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-6

AVERAGE TEST YEAR DEPRECIABLE PLANT ALLOCABLE TO CONTRACT CUSTOMERS

Line No.	Cost Component	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Total Investment \$	Investment Allocated to Contract Service \$	Investment to Be Allocated To Retail Service \$	Contract Customer Land excl. Contributed Plant \$	Contract Customer Land excl. Contributed Plant \$	Contributed Plant (incl. land) \$	Contract Customer Depreciable Plant \$	Total Investment \$	Investment Allocated to Contract Service \$	Contract Customer Land excl. Contributed Plant \$	Contributed Plant (incl. land) \$	Investment Allocated to Contract Service \$
		(8) * 1,000	(9) * 1,000	(1) - (2)	(10) * 1,000	(2) - (4)	(11) * 1,000	(5) - (6)	Sptallo-45	Sptallo-45	Sptallo-45	Sptallo-45	Sptallo-45
Collection System													
1	Sewers-Capacity	1,494,948,000	17,991,000	1,476,957,000		17,991,000	6,968,889	11,022,111	1,494,948	17,991		6,969	11,022
2	Pumping Stations Capacity	30,239,000	252,000	29,987,000		252,000	190,000	62,000	30,239	252		190	62
3	LTCP Investment	54,692,000	10,446,000	44,246,000		10,446,000	0	10,446,000	54,692	10,446		0	10,446
4	Total Collection System	1,579,879,000	28,689,000	1,551,190,000		28,689,000	7,158,889	21,530,111	1,579,879	28,689	0	7,159	21,530
Water Pollution Control Plants													
Northeast Plant													
Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton													
5	Volume	67,307,000	18,745,000	48,562,000	16,000	18,729,000	9,656,444	9,072,556	67,307	18,745		9,656	18,745
6	Capacity	31,988,000	7,350,000	24,638,000	8,100	7,341,900	3,674,833	3,667,067	31,988	7,350		3,675	6,171
7	Suspended Solids	72,697,000	13,704,000	58,993,000	19,500	13,684,500	7,340,000	6,344,500	72,697	13,704		7,340	13,704
8	BOD	94,462,000	23,524,000	70,938,000	23,400	23,500,600	13,632,556	9,868,044	94,462	23,524		13,633	23,524
9	Total Northeast Plant	266,454,000	63,323,000	203,131,000	67,000	63,256,000	34,303,833	28,952,167	266,454	63,323	67	34,304	62,144
Southwest Plant													
Retail, DELCORA, Lower Merit field (excl. Wyndmoor), & Upper Darby													
10	Volume	70,838,000	30,245,000	40,593,000	4,600	30,240,400	28,719,000	1,521,400	70,838	30,245		28,719	30,245
11	Capacity	39,761,000	8,489,000	31,272,000	3,500	8,485,500	8,115,000	370,500	39,761	8,489		8,115	8,489
12	Suspended Solids	59,757,000	16,885,000	42,872,000	4,800	16,880,200	14,223,000	2,657,200	59,757	16,885		14,223	16,885
13	BOD	53,583,000	26,228,000	27,355,000	3,100	26,224,900	23,066,000	3,158,900	53,583	26,228		23,066	26,228
14	Total Southwest Plant	223,939,000	81,847,000	142,092,000	16,000	81,831,000	74,123,000	7,708,000	223,939	81,847	16	74,123	81,847
Southeast Plant													
Retail & Springfield (Wyndmoor)													
15	Volume	46,556,000	423,000	46,133,000	1,000	422,000		422,000	46,556	423	1		423
16	Capacity	49,385,000	275,000	49,110,000	0	275,000		275,000	49,385	275			275
17	Suspended Solids	25,344,000	79,000	25,265,000	0	79,000		79,000	25,344	79			79
18	BOD	25,288,000	69,000	25,219,000	0	69,000		69,000	25,288	69			69
19	Total Southeast Plant	146,573,000	846,000	145,727,000	1,000	845,000		845,000	146,573	846	1	0	846
20	Total Allocated Treatment Plants	636,966,000	146,016,000	490,950,000	84,000	145,932,000	108,426,833	37,505,167	636,966	146,016	84	108,427	144,837
21	Total Allocated System Investment	2,216,845,000	174,705,000	2,042,140,000	84,000	174,621,000	115,585,722	59,035,278	2,216,845	174,705	84	115,586	166,367

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLPLNT - Determination Of Depreciable Plant Allocable To Retail Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-7

Determination of Depreciable Plant Allocable to Retail Service

Line No.	Cost Component	(1) Total Depreciable Plant \$	(2) Depreciable Plant Allocable to Contract Cust. \$	(3) Net Depreciable Plant Allocable to Retail \$ (1) - (2)
	Collection System			
1	Sewers-Capacity	1,486,163,111	11,022,111	1,475,141,000
2	Pumping Stations Capacity	30,049,000	62,000	29,987,000
3	LTCP Investment	54,692,000	10,446,000	44,246,000
4	Total Collection System	1,570,904,111	21,530,111	1,549,374,000
	Water Pollution Control Plants			
	Northeast Plant			
	Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton			
5	Volume	57,445,556	9,072,556	48,373,000
6	Capacity	28,212,167	3,667,167	24,545,000
7	Suspended Solids	65,123,000	6,345,000	58,778,000
8	BOD	80,541,167	9,867,444	70,673,723
9	Total Northeast Plant	231,321,890	28,952,167	202,369,723
	Southwest Plant			
	Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), & Upper Darby			
10	Volume	41,990,000	1,521,000	40,469,000
11	Capacity	31,548,000	370,000	31,178,000
12	Suspended Solids	45,393,000	2,657,000	42,736,000
13	BOD	30,425,000	3,160,000	27,265,000
14	Total Southwest Plant	149,356,000	7,708,000	141,648,000
	Southeast Plant			
	Retail & Springfield (Wyndmoor)			
15	Volume	46,505,000	422,000	46,083,000
16	Capacity	49,331,000	275,000	49,056,000
17	Suspended Solids	25,316,000	79,000	25,237,000
18	BOD	25,261,000	69,000	25,192,000
19	Total Southeast Plant	146,413,000	845,000	145,568,000
20	Total Allocated Treatment Plants	527,090,890	37,505,167	489,585,723
21	Total Allocated System Investment	2,097,995,001	59,035,278	2,038,959,723

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WWUCOS - Unit Costs Of Retail Wastewater Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-8
Inside City Rate of Return:	4.82%						
Sewer Depr. Rate:	2.0%						
Tritmt Plant Depr. Rate:	2.5%						
Outside City Rate of Return	7.5%						

**TABLE WW - 11 AND TABLE WW - 12
UNIT COSTS OF RETAIL WASTEWATER SERVICE
Test Year 2019**

Line No.	(1)	(2)			(3)				(4)				(5)			(6)			(7)			(8)			(9)			(10)			(11)			(12)			(13)			(14)			(15)		
		Collection System			Water Pollution Control Plants				Customer Costs			Industrial Waste Unit																																	
		Total	Pumping Station		Sanitary Sewers - Capacity	Storm Costs	Volume	Capacity	Suspended Solids	BOD	Meter Costs	Billing		Retail Customers	Direct Excess Strength	Stormwater																													
Total Units of Service																																													
1	Units		Mcf	Mcf/day	Mcf/day			1,000 lbs.	1,000 lbs.	Equivalent Meters	Equivalent Bills		Equivalent Meters	\$																															
2	Quantity		15,135,900	87,232	265,992			159,046	111,592	579,308	5,875,266		579,308																																
Operation and Maintenance Expense																																													
3	Total Expense - \$	274,483,035	3,023,000	18,115,400	41,022,800	77,749,200	26,516,000	11,496,000	33,841,799	21,891,000	4,635,000	18,069,000	11,856,836	3,343,000	1,680,000	1,244,000																													
4	Unit Expense - \$/unit		0.1997	207.6692	154.2257		1.7519	131.7865	212.7799	196.1700	8.0009	3.0754		5.7707																															
Capital Costs																																													
5	Total Plant Investment - \$	2,042,140,000	29,987,000	547,633,100	973,569,900	135,288,000	105,020,000	127,130,000	123,512,000																																				
6	Unit Plant Investment - \$/unit		343.7615	2058.8330	8.9382	1203.9160	799.3285	1106.8177																																					
7	Depreciable Plant Investment - \$	2,038,959,723	29,987,000	546,979,300	972,407,700	134,925,000	104,779,000	126,751,000	123,130,723																																				
8	Unit Depreciable Plant Investment - \$/unit		343.7615	2056.3750	8.9142	1201.1533	796.9455	1103.4010																																					
9	Depreciation Expense - \$	43,377,100	749,600	10,939,600	19,448,200	3,373,100	2,619,500	3,168,800	3,078,300																																				
10	Unit Depreciation Expense - \$/unit		8.5940	41.1275		0.0229	30.0288	19.9236	27.5850																																				
Return on Investment																																													
11	Total Cost - \$	98,526,000	1,446,800	26,421,300	46,971,300	6,527,200	5,066,800	6,133,600	5,959,000																																				
12	Unit Cost (a) - \$/unit		16.5853	99.3314		0.4312	58.0847	38.5648	53.4000																																				
13	Total Unit Capital Costs (Line 10 + Line 12) - \$/unit			25.1793	140.4589		0.6541	88.1135	58.4884	80.9850																																			
14	Total Unit Costs (Line 4 + Line 13) - \$/unit		0.1997	232.8485	294.6846	2.4060	219.9000	271.2683	277.1550	8.0009	3.0754		5.7707																																
	Total Retail Cost of Service	416,386,135	3,023,000	20,311,800	78,383,700	144,168,700	36,416,300	19,182,300	43,144,199	30,928,300	4,635,000	18,069,000	11,856,836	3,343,000	1,680,000	1,244,000																													
	Check on Retail Return:	0																																											
	(a) Retail rate of return = 4.8246 %																																												

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ICROR - Inside City Rate Of Return	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-9

INSIDE CITY RATE OF RETURN

Line No.		(1) Contract Customer Investment \$	(2) Total System Investment \$	(3) Percent Return %	(4) Return \$
	Total System Net of Federal Grants and Collection System Assessments	Retcos-6	Retcos-6		
1	Collection System		1,579,879,000		
2	WPC Plants		636,966,000		
3	Total System		2,216,845,000	4.813422%	106,706,102 (a)
	Less Contract Customers				
4	Total Allocated Investment	174,705,000	174,705,000		0
5	Less Contributed Plant	115,585,722		Retcos-8	Retcos-11
6	Net Investment for Return	59,119,278		7.50%	4,305,367
	Contract Customers Management Fee				Below 3,874,759
7	Net to Retail Rate Base		2,042,140,000	4.824644%	98,525,976

(a) Calculation of total return:

		Retail \$	Contract \$	Total \$	Totals from This Page \$	Difference in Totals \$
COS = O&M + Annual Depreciation + Return						
COS =	441,547,800 LINKS	Retcos-12, Retcos-13				
O&M =	293,863,906 LINKS	Retcos-19	Retcos-11			
WTP Sludge O&M =	9,660,764	O&M 274,483,035	29,044,000	303,527,035	303,524,670	2,365
WTP Sludge Capital =	3,767,207	Retcos-8	Retcos-11			
	Retcos-4	Depreciation 43,377,100	1,330,251	44,707,351	44,745,000	(37,649)
Annual Depr =	\$44,745,000	Retcos-8	Retcos-11			
Return = COS-	\$445,315,007	Return 98,526,000	4,305,367	102,831,367	106,706,102	24
O&M Net Revenue Req-	(\$293,863,906)	Mgmt Fee	3,874,759	3,874,759		
Ann Depr	(\$44,745,000)		Rates-7			
Return =	\$106,706,102					
	151,451,102					
	151,451,102	416,386,135	38,554,377	454,940,512	454,975,771	(35,260)
	106,706,102					

ANNUAL LUMP SUM COSTS FOR SEWER MAINTENANCE, CUSTOMER RELATED COSTS, AND CAPITAL COSTS FOR FACILITIES USED BY WHOLESALE CONTRACT CUSTOMERS

Line No.	Contract Customers	Depreciable Plant				Annual Lump Sum						Total Annual Lump Sum Cost		
		Collection System	Treatment and Pumping	Collection System	Treatment and Pumping Less Land	Sewer Maintenance Expense (c)	Customer Related Costs	SMIP/GARP	Depreciation Expense Collection System	Depreciation Expense Treatment and Pumping	Return on Investment Collection System			Return on Investment Treatment and Pumping
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
		<u>Sptallo-40</u>	<u>Sptallo-40</u>	(1)	(2)-(12)	<u>Somallo-53</u>	<u>Somallo-53</u>		(b)	(b)	(b)	(b)	(5)+...(10) Rounded	
1	Abington	809,000	4,552,000	809,000	4,535,000	42,000	14,000		16,180	113,375	60,675	341,400	588,000	17
2	Bensalem	1,110,000	8,120,000	1,110,000	8,091,000	44,000	49,000		(a)	(a)	(a)	(a)	93,000	29
3	Bucks County (d)	4,044,000	27,354,000	4,044,000	27,255,000	237,000	16,000		49,560	79,925	185,850	239,775	808,000	99
4	Cheltenham	1,850,000	11,676,000	1,850,000	11,633,000	114,000	34,000		37,000	290,825	138,750	875,700	1,490,000	43
5	DELCORA (e)	5,164,000	47,022,000	5,164,000	46,875,000	363,000	43,000		103,240	70,125	387,150	210,300	1,177,000	147
6	Lower Merion	1,618,000	14,616,000	1,618,000	14,571,000	72,000	54,000		(a)	(a)	(a)	(a)	126,000	45
7	Lower Moreland	901,000	1,880,000	901,000	1,873,000	42,000	21,000		18,020	46,825	67,575	141,000	336,000	7
8	Lower Southampton (f)	10,747,000	9,741,000	10,747,000	9,706,000	446,000	16,000		155,234	175,247	582,129	527,638	1,902,000	35
9	Springfield (less Wyndmoor)	1,140,000	4,982,000	1,140,000	4,966,000	61,000	27,000		22,800	124,150	85,500	373,650	694,000	16
10	Springfield (Wyndmoor)	331,000	846,000	331,000	845,000	13,000	8,000		6,620	21,125	24,825	63,450	137,000	1
11	Upper Darby	723,000	15,479,000	723,000	15,430,000	29,000	14,000		(a)	(a)	(a)	(a)	43,000	49
12	Total	28,437,000	146,268,000	28,437,000	145,780,000	1,463,000	296,000	0	408,654	921,597	1,532,454	2,772,913	7,394,000	488

L. Merion Pumping Sptallo-40 190,000 14,616,000

Springfield(less Wyndmoor) 62,000
Springfield(less Wyndmoor) 4,982,000

Land \$1,000 Sptallo-42

(a) It is assumed that Bensalem, Lower Merion, Lower Southampton and Upper Darby contributes their entire allocated plant investment, and therefore, are not allocated any depreciation expense or return on investment.

(b) Collection System Annual Depreciation Rate: 2.0%
Trrmt & Pumping Plant Annual Depreciation Rate: 2.5%
Township Customers Rate of Return: 7.50%

(c) Excludes \$0.0 Pumping Stations-Direct to Bucks County, \$66,000.0 Pumping Stations-Lower Merion volume and capacity costs recovered through volume and capacity rates, and \$46,000.0 Pumping Stations-Springfield (excl Wyndmoor) volume and capacity costs recovered through volume and capacity rates.

(d) Bucks County allocated rate base and depreciation based on assets in service after 6/30/2007.

(e) DELCORA allocated rate base and depreciation based on assets in service after 12/31/2010.

(f) Lower Southampton phased into Return and Depr over 18 years starting in FY 2007

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. la
CTRCTCOS - Summary Of Allocated Cost Of Service for Contract Customers	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-11

SUMMARY OF ALLOCATED COST OF SERVICE FOR CONTRACT CUSTOMERS

Test Year 2019

Customer	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Allocated Investment \$	Allocated Depreciable Investment \$	O&M Expense \$	SMIP/GARP Expense \$	Depreciation Expense \$	Return on Investment \$	Allocated Cost of Service \$	O&M Expense \$	Lump Sum Costs \$
	<u>Retcos-10</u>	<u>Retcos-10</u>	<u>Somallo-53</u>		<u>Retcos-10</u>	<u>Retcos-10</u>		(3)	<u>Retcos-10</u>
Abington	5,361,000	5,344,000	921,000		129,555	402,075	1,452,630	921,000	588,000
Bensalem	9,230,000	9,201,000	1,702,000		(a)	(a)	1,702,000	1,702,000	93,000
Bucks County	31,398,000	31,299,000	7,368,000		129,485	425,625	7,923,110	7,368,000	808,000
Cheltenham	13,526,000	13,483,000	2,127,000		327,825	1,014,450	3,469,275	2,127,000	1,490,000
DELCORA	52,186,000	52,039,000	8,045,000		173,365	597,450	8,815,815	8,045,000	1,177,000
Lower Merion	16,234,000	16,189,000	2,275,000		(a)	(a)	2,275,000	2,275,000	126,000
Lower Moreland	2,781,000	2,774,000	480,000		64,845	208,575	753,420	480,000	336,000
Lower Southampton	20,488,000	20,453,000	2,184,000		330,481	1,109,767	3,624,248	2,184,000	1,902,000
Springfield (less Wyndmoor)	6,122,000	6,106,000	1,076,000		146,950	459,150	1,682,100	1,076,000	694,000
Springfield (Wyndmoor)	1,177,000	1,176,000	158,000		27,745	88,275	274,020	158,000	137,000
Upper Darby	16,202,000	16,153,000	2,708,000		(a)	(a)	2,708,000	2,708,000	43,000
Total	174,705,000	174,217,000	29,044,000	0	1,330,251	4,305,367	34,679,618	29,044,000	7,394,000

(a) It is assumed that Bensalem, Lower Merion, and Upper Darby contribute their entire allocated plant investment, and therefore, are not allocated any depreciation expense or return on investment.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLCC - Allocation Of O&M Expense To Retail Service - Customer Costs	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-12

ALLOCATION OF O&M EXPENSE TO RETAIL SERVICE - CUSTOMER COSTS

Line No.	Customer Class	Customer Costs												Total Retail Customer Cost O&M \$	
		Meter Costs		Sanitary Billing Costs		Stormwater Billing Costs		Industrial Waste Unit			Stormwater Direct		Warranty Program		
		Equivalent Meters	Cost \$	Equivalent Bills	Cost \$	Equivalent Bills	Cost \$	Equivalent Meters	Retail Customers	Direct \$	Equivalent Meters	Cost \$	Equivalent Service		Cost \$
	Retcos-2	Retcos-8 x Col.(1)	Retcos-2	Retcos-8 x Col.(3)	Retcos-2	Retcos-8 x Col.(5)	Retcos-2	Retcos-8 x Col.(7)	Retcos-8	Retcos-2	Retcos-2	Retcos-2	Retcos-8 x Col.(9)		
1	Residential	429,455	3,436,042	4,984,873	15,330,685			429,455	2,478,243			415,136	0	21,244,970	
2	Commercial	84,207	673,732	471,319	1,449,494			84,207	485,933			36,111	0	2,609,159	
3	Industrial	3,908	31,268	15,186	46,703			3,908	22,552			1,125	0	100,523	
4	Public Utilities	1,069	8,553	2,700	8,304			1,069	6,169			138	0	23,026	
5	Senior Citizens	21,375	171,019	256,420	788,594			21,375	123,349			21,368	0	1,082,962	
6	Sewer Only	541	4,328	1,532	4,712			541	3,122			79	0	12,162	
7	Groundwater	0	0	0	0			0	0			0	0	0	
8	Surcharge	0	0	0	0			0	0	1,680,000		0	0	1,680,000	
9	Housing Authority	8,077	64,623	70,386	216,465			8,077	46,610			5,588	0	327,698	
10	Charities & Schools	16,817	134,551	46,692	143,597			16,817	97,046			2,214	0	375,194	
11	Hospital/University	8,295	66,367	15,457	47,536			8,295	47,868			230	0	161,771	
12	Hand Bill	5,181	41,453	9,364	28,798			5,181	29,898			112	0	100,149	
13	xxxxxxxxxx	0	0	0	0			0	0			0	0	0	
14	Water Treatment Plant Sludge	0	0	0	0			0	0			0	0	0	
15	Private Fire Connections	380	3,040	1,301	4,001			380	2,193			82	0	9,234	
16	Scheduled (Flat Rate)	3	24	36	111			3	17			3	0	152	
17	xxxxxxxxxx	0	0	0	0			0	0			0	0	0	
18	Subtotal	579,308	4,635,000	5,875,266	18,069,000	0	0	579,308	3,343,000	1,680,000	0	0	482,187	27,727,000	
19	Infiltration and Inflow		0		0				0					0	
20	Stormwater						11,856,836					1,244,000		13,100,836	
21	Total Retail Service	579,308	4,635,000	5,875,266	18,069,000	0	11,856,836	579,308	3,343,000	1,680,000	0	1,244,000	482,187	40,827,836	
22	Units Costs		8,0009		53,0754				55,7707					50,0000	
	Residential - Based on Unit Cost		3,436,027		15,330,478				2,478,256					0	
	Difference		15		207				(13)					0	
	Difference as a Percentage of Actual Allocation		0.00%		0.00%				0.00%						
	CHECK Units of Service	0		0				0				0			

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. la
RTLPLNT - Allocation Of O&M Expense To Retail Service - Plant	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-13

ALLOCATION OF O & M EXPENSE TO RETAIL SERVICE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
WPC Treatment Plant Allocation of O&M										
Line No.	Customer Class	Annual Volume Mcf Retcos-2	Volume Cost \$ Line 21 * Col.(1)	Capacity Units Mcf/day Retcos-2	Capacity Cost \$ Line 21 * Col.(3)	SS Units 1,000 lbs Retcos-2	SS Cost \$ Line 21 * Col.(5)	BOD Units 1,000 lbs Retcos-2	BOD Cost \$ Line 21 * Col.(7)	Total Retail WPC Plant O & M \$
Retail Service										
1	Residential	2,987,411	5,233,645	12,276	1,617,811	47,536	10,114,705	49,400	9,690,798	26,656,959
2	Commercial	1,421,736	2,490,738	5,843	770,029	22,623	4,813,720	23,510	4,611,957	12,686,444
3	Industrial	82,254	144,102	338	44,544	1,309	278,529	1,360	266,791	733,966
4	Public Utilities	10,272	17,996	42	5,535	163	34,683	170	33,349	91,563
5	Senior Citizens	109,642	192,082	451	59,436	1,745	371,301	1,813	355,656	978,475
6	Sewer Only	73,150	128,151	301	39,668	1,164	247,676	1,210	237,366	652,861
7	Groundwater	210,000	367,899	1,438	189,509	917	195,119	131	25,698	778,225
8	Surcharge	0	0	0	0	2,340	497,905	11,520	2,259,878	2,757,783
9	Housing Authority	157,846	276,531	649	85,529	2,512	534,503	2,610	512,004	1,408,567
10	Charities & Schools	178,825	313,284	735	96,863	2,845	605,359	2,957	580,075	1,595,581
11	Hospital/University	276,290	484,033	1,135	149,578	4,396	935,380	4,569	896,301	2,465,292
12	Hand Bill	405,375	710,177	1,666	219,556	6,450	1,372,430	6,703	1,314,928	3,617,091
13	xxxxxxxxxx	0	0	0	0	0	0	0	0	0
14	Water Treatment Plant Sludge	292,800	512,956	1,203	158,539	26,000	5,532,277	0	0	6,203,772
15	Private Fire Connections	4,275	7,489	18	2,372	68	14,469	71	13,928	38,258
16	Scheduled (Flat Rate)	23	40	0	0	0	0	0	0	40
17	xxxxxxxxxx	0	0	0	0	0	0	0	0	0
18	Subtotal	6,209,900	10,879,123	26,095	3,438,969	120,068	25,548,056	106,024	20,798,729	60,664,877
19	Infiltration and Inflow	8,926,000	15,636,877	61,137	8,057,031	38,978	8,293,743	5,568	1,092,271	33,079,922
20	Total Retail Service	15,135,900	26,516,000	87,232	11,496,000	159,046	33,841,799	111,592	21,891,000	93,744,799
21	Units Costs		\$1,7519		\$131,7865		\$212,7799		\$196,1700	
	Infiltration and Inflow Allocation based on Unit Cost		15,637,459		8,057,031		8,293,735		1,092,275	
	Difference due to rounding		(582)		(0)		8		(4)	
	Difference as a Percentage of Actual Allocation		0.00%		0.00%		0.00%		0.00%	
	Units of Service Check	0		0		0		0		

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLII - Allocated Infiltration/Inflow Costs for Inside City Retail Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-14

(a) In the Water Commissioner's rate decision in the 1990 rate proceeding, it was directed that 20 percent of the total infiltration/inflow costs should be recovered through the service charge on an equivalent meter basis and 80 percent of the cost of infiltration/inflow was to be recovered from the volume charge. In accordance with the most recent rate proceeding decision issued in 1993, the rate design for the current study reflects a 30 percent recovery of infiltration/inflow costs through the service charge and 70 percent through the volume charge as a gradualistic move towards what is perceived to be more cost causative based charges. (Direct Testimony of J. Rowe McKinley and Exhibits JRM-1 and JRM-2, February 2001, pg. 65.)

(b) Groundwater is wet weather related and should not receive an allocation of if

Line No.	Customer Class	Allocated Infiltration/Inflow COS			O&M Allocation Detail			Capital Cost Allocation Detail			Total Cost Allocation Detail		
		Operation & Maintenance \$	Capital Cost \$	Total \$	Sanitary Sewer \$	Stormwater \$	Total \$	Sanitary Sewer \$	Stormwater \$	Total \$	Sanitary Sewer \$	Stormwater \$	Total \$
	Allocation Basis												
	I/I - Sewer Capacity				100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	
	I/I - Pumping & Treatment				70.0%	30.0%	100.0%	70.0%	30.0%	100.0%	70.0%	30.0%	
	Total I/I Costs												
	I/I - Sewer Capacity	30,172,405	27,479,154	57,651,559	30,172,405	0	30,172,405	27,479,154	0	27,479,154	57,651,559	0	57,651,559
	I/I - Pumping & Treatment	47,559,079	15,493,790	63,052,869	33,291,355	14,267,724	47,559,079	10,845,653	4,648,137	15,493,790	44,137,008	18,915,861	63,052,869
	Total I/I Costs	77,731,484	42,972,944	120,704,428	63,463,760	14,267,724	77,731,484	38,324,807	4,648,137	42,972,944	101,788,567	18,915,861	120,704,428

Line No.	Customer Class	Allocated Sanitary Sewer Related Infiltration/Inflow COS					O&M Allocation Detail			Capital Cost Allocation Detail			Total Cost Allocation Detail		
		Volume Mef	Equivalent Meters	Operation & Maintenance \$	Capital Cost \$	Total \$	Equivalent Meters \$	Volume \$	Total \$	Equivalent Meters \$	Volume \$	Total \$	Equivalent Meters \$	Volume \$	Total \$
	Sanitary Sewer I/I - Retail Service	(a)	(a)												
	I/I - Sewer Capacity	70.0%	30.0%				9,051,722	21,120,683	30,172,405	8,243,746	19,235,408	27,479,154	17,295,468	40,356,091	57,651,559
	I/I - Pumping & Treatment	100.0%	0.0%				0	33,291,355	33,291,355	0	10,845,653	10,845,653	0	44,137,008	
	Total	83.0%	17.0%				9,051,722	54,412,038	63,463,760	8,243,746	30,081,061	38,324,807	17,295,468	84,493,099	
		Retcos-2	Retcos-2				14%	86%		22%	78%		17%	83%	
1	Residential	2,987,411	429,455	33,802,564	21,088,952	54,891,516	6,710,259	27,092,305	33,802,564	6,111,287	14,977,665	21,088,952	12,821,546	42,069,970	
2	Commercial	1,421,736	84,207	14,209,208	8,326,298	22,535,506	1,315,739	12,893,469	14,209,208	1,198,294	7,128,004	8,326,298	2,514,033	20,021,473	
3	Industrial	82,254	3,908	807,015	468,003	1,275,018	61,063	745,952	807,015	55,612	412,391	468,003	116,675	1,158,343	
4	Public Utilities	10,272	1,069	109,858	66,712	176,570	16,703	93,155	109,858	15,212	51,500	66,712	31,915	144,655	
5	Senior Citizens	109,642	21,375	1,328,309	853,873	2,182,182	333,986	994,323	1,328,309	304,173	549,700	853,873	638,159	1,544,023	
6	Sewer Only	73,150	541	671,837	374,443	1,046,280	8,453	663,384	671,837	7,699	366,744	374,443	16,152	1,030,128	
7	Groundwater (b)	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Housing Authority	157,846	8,077	1,557,684	906,315	2,463,999	126,204	1,431,480	1,557,684	114,938	791,377	906,315	241,142	2,222,857	
10	Charities & Schools	178,825	16,817	1,884,501	1,135,869	3,020,370	262,767	1,621,734	1,884,501	239,312	896,557	1,135,869	502,079	3,020,370	
11	Hospital/University	276,290	8,295	2,635,239	1,503,249	4,138,488	129,610	2,505,629	2,635,239	118,041	1,385,208	1,503,249	247,651	3,890,837	
12	Hand Bill	405,375	5,181	3,757,232	2,106,115	5,863,347	80,953	3,676,279	3,757,232	73,727	2,032,388	2,106,115	154,680	5,708,667	
13	xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Water Treatment Plant Sludge	292,800	0	2,655,352	1,467,980	4,123,332	0	2,655,352	2,655,352	0	1,467,980	1,467,980	0	4,123,332	
15	Private Fire Connections	4,275	380	44,707	26,841	71,548	5,938	38,769	44,707	5,408	21,433	26,841	11,346	60,202	
16	Scheduled (Flat Rate)	23	3	254	157	411	47	207	254	43	114	157	90	321	
17	xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Total Retail	5,999,900	579,308	63,463,760	38,324,807	101,788,567	9,051,722	54,412,038	63,463,760	8,243,746	30,081,061	38,324,807	17,295,468	84,493,099	
				Retcos-12	Retcos-15		0	0		0	0		0	0	
				Retcos-13											
				Retcos-19											

ALLOCATION OF CAPITAL COSTS TO RETAIL SERVICE

Line No.	Customer Class	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
		Sewers				Water Pollution Control Plants											Total Retail
		Pumping Stations		Sanitary		Storm		Volume		Capacity		Suspended Solids		BOD		Capital Costs	
	Capacity Units Mcf/day	Capital Costs \$	Capacity Units Mcf/day	Capital Costs \$	Capacity Units Mcf/day	Capital Costs \$	Volume Units Mcf	Capital Costs \$	Capacity Units Mcf/day	Capital Costs \$	SS Units 1,000 lbs.	Capital Costs \$	BOD Units 1,000 lbs.	Capital Costs \$	Capital Costs \$		
	Retcos-2	Line 22 * x Col.(1)	Retcos-2	Line 22 * x Col.(3)	Retcos-8	Retcos-2	Line 22 * x col.(7)	Retcos-2	Line 22 * x col.(9)	Retcos-2	Line 22 * x col.(11)	Retcos-2	Line 22 * x col.(13)	Retcos-2	Line 22 * x col.(13)	Capital Costs \$	
1	Residential	12,276	309,101	32,736	4,598,063		2,987,411	1,954,066	12,276	1,081,681	47,536	2,780,305	49,400	4,000,659	14,723,875		
2	Commercial	5,843	147,123	15,581	2,188,490		1,421,736	929,957	5,843	514,847	22,623	1,323,183	23,510	1,903,957	7,007,557		
3	Industrial	338	8,511	901	126,553		82,254	53,803	338	29,782	1,309	76,561	1,360	110,140	405,350		
4	Public Utilities	42	1,058	113	15,872		10,272	6,719	42	3,701	163	9,534	170	13,767	50,651		
5	Senior Citizens	451	11,356	1,202	168,832		109,642	71,717	451	39,739	1,745	102,062	1,813	146,826	540,532		
6	Sewer Only	301	7,579	802	112,648		73,150	47,847	301	26,522	1,164	68,080	1,210	97,992	360,668		
7	Groundwater	1,438	36,208	4,603	646,532		210,000	137,361	1,438	126,707	917	53,634	131	10,609	1,011,051		
8	Surcharge	0	0	0	0		0	0	0	0	2,340	136,863	11,520	932,947	1,069,810		
9	Housing Authority	649	16,341	1,730	242,994		157,846	103,247	649	57,186	2,512	146,923	2,610	211,371	778,062		
10	Charities & Schools	735	18,507	1,960	275,299		178,825	116,970	735	64,763	2,845	166,399	2,957	239,473	881,411		
11	Hospital/University	1,135	28,579	3,028	425,310		276,290	180,722	1,135	100,009	4,396	257,115	4,569	370,020	1,361,755		
12	Hand Bill	1,666	41,949	4,442	623,918		405,375	265,156	1,666	146,797	6,450	377,250	6,703	542,842	1,997,912		
13	xxxxxxxxxx	0	0	0	0		0	0	0	0	0	0	0	0	0		
14	Water Treatment Plant Sludge	1,203	30,291	3,209	450,733		292,800	191,520	1,203	106,001	26,000	1,520,698	0	0	2,299,243		
15	Private Fire Connections	18	453	47	6,602		4,275	2,796	18	1,586	68	3,977	71	5,750	21,164		
16	Scheduled (Flat Rate)	0	0	0	0		23	15	0	0	0	0	0	0	15		
17	xxxxxxxxxx	0	0	0	0		0	0	0	0	0	0	0	0	0		
18	Subtotal	26,095	657,056	70,354	9,881,846	0	6,209,900	4,061,896	26,095	2,299,321	120,068	7,022,584	106,024	8,586,353	32,509,056		
19	Infiltration and Inflow	61,137	1,538,944	195,638	27,479,154		8,926,000	5,838,104	61,137	5,386,679	38,978	2,279,416	5,568	450,647	42,972,944		
20	Stormwater						66,420,000								66,420,000		
21	Total Retail Service	87,232	2,196,000	265,992	37,361,000	0	66,420,000	9,900,000	87,232	7,686,000	159,046	9,302,000	111,592	9,037,000	141,902,000		
22	Unit Costs		\$25.1793		\$140.4589			\$0.6541		\$88.1135		\$58.4884		\$80.9850			

(a) Capital Cost Control Figures:

Infiltration and Inflow Allocation based on Unit Cost	1,539,387	27,479,098	5,838,497	5,386,995	2,279,761	450,924
Difference due to rounding	(443)	56	(393)	(316)	(345)	(277)
Difference as a Percentage of Actual Allocation	-0.03%	0.00%	-0.01%	-0.01%	-0.02%	-0.06%
CHECK Units of Service	0	0	0	0	0	0
Total based on Unit Cost (Rounded to 100s)	2,196,400	37,360,900	9,900,400	7,686,300	9,302,300	9,037,300
Calculated Unit Cost	25.1788	140.4587	0.6541	88.1133	58.4881	80.9852
Calculated I/I Unit Cost	25.1721	140.4592	0.6541	88.1083	58.4796	80.9352

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLCOS - Retail Cost Of Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-16

RETAIL TEST YEAR COST OF SERVICE

Line No.	Customer Class	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
		Collection System	Treatment Plants	Customer Costs	Volume Allocated I/I O&M	Meter Allocated I/I O&M	O&M Total	Capital Costs	Volume Allocated I/I Capital Cost	Meter Allocated I/I Capital Cost	Capital Cost Total	Total Cost of Service	Cost of Service Excluding I/I	Allocated I/I	
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
		Retcos-19	Retcos-13	Retcos-12	Retcos-14	Retcos-14		Retcos-15	Retcos-14	Retcos-14		(6) + (10)	(1)+(2)+(3)+(7)	(4)+(5)+(8)+(9)	
Retail Service															
1	Residential	8,194,666	26,656,959	21,244,970	6,710,259	27,092,305	89,899,159	14,723,875	6,111,287	14,977,665	35,812,827	125,711,986	70,820,470	54,891,516	Retcos-20
2	Commercial	3,900,323	12,686,444	2,609,159	1,315,739	12,893,469	33,405,134	7,007,557	1,198,294	7,128,004	15,333,855	48,738,989	26,203,483	22,535,506	
3	Industrial	225,575	733,966	100,523	61,063	745,952	1,867,079	405,350	55,612	412,391	873,353	2,740,432	1,465,414	1,275,018	
4	Public Utilities	28,201	91,563	23,026	16,703	93,155	252,648	50,651	15,212	51,500	117,363	370,011	193,441	176,570	
5	Senior Citizens	300,933	978,475	1,082,962	333,986	994,323	3,690,679	540,532	304,173	549,700	1,394,405	5,085,084	2,902,902	2,182,182	
6	Sewer Only	200,805	652,861	12,162	8,453	663,384	1,537,665	360,668	7,699	366,744	735,111	2,272,776	1,226,496	1,046,280	
7	Groundwater	1,050,466	778,225	0	0	0	1,828,691	1,011,051	0	0	1,011,051	2,839,742	2,839,742	0	
8	Surcharge	0	2,757,783	1,680,000	0	0	4,437,783	1,069,810	0	0	1,069,810	5,507,593	5,507,593	0	
9	Housing Authority	433,109	1,408,567	327,698	126,204	1,431,480	3,727,058	778,062	114,938	791,377	1,684,377	5,411,435	2,947,436	2,463,999	
10	Charities & Schools	490,630	1,595,581	375,194	262,767	1,621,734	4,345,906	881,411	239,312	896,557	2,017,280	6,363,186	3,342,816	3,020,370	
11	Hospital/University	757,875	2,465,292	161,771	129,610	2,505,629	6,020,177	1,361,755	118,041	1,385,208	2,865,004	8,885,181	4,746,693	4,138,488	
12	Hand Bill	1,112,001	3,617,091	100,149	80,953	3,676,279	8,586,473	1,997,912	73,727	2,032,388	4,104,027	12,690,500	6,827,153	5,863,347	
12	xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Water Treatment Plant Sludge	803,208	6,203,772	0	0	2,655,352	9,662,332	2,299,243	0	1,467,980	3,767,223	13,429,555	9,306,223	4,123,332	
14	Private Fire Connections	11,841	38,258	9,234	5,938	38,769	104,040	21,164	5,408	21,433	48,005	152,045	80,497	71,548	
15	Scheduled (Flat Rate)	5	40	152	47	207	451	15	43	114	172	623	212	411	
16	xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Total Retail	17,509,638	60,664,877	27,727,000	9,051,722	54,412,038	169,365,275	32,509,056	8,243,746	30,081,061	70,833,863	240,199,138	138,410,571	101,788,567	
18	Less Water Treatment Plant Sludge														
19	Allocated to the Water Utility	(803,208)	(6,203,772)	0	0	(2,655,352)	(9,662,332)	(2,299,243)	0	(1,467,980)	(3,767,223)	Test Cell (13,429,555)			
20	Net Retail Cost of Service	16,706,430	54,461,105	27,727,000	9,051,722	51,756,686	159,702,943	30,209,813	8,243,746	28,613,081	67,066,640	226,769,583			
SUM CHECK (Line 17)												240,199,138			

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLCOSSUM - Retail Cost Of Service Summary	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-17

WASTEWATER RETAIL COST OF SERVICE

Test Year 2019

Line No.	Customer Class	(1) Operation and Maintenance Expense \$	(2) Capital Costs \$	(3) Total Cost of Service \$	
	Retail Service	<u>Retcos-16</u>	<u>Retcos-16</u>		
1	Residential	89,899,159	35,812,827	125,711,986	<u>Retcos-20</u>
2	Commercial	33,405,134	15,333,855	48,738,989	
3	Industrial	1,867,079	873,353	2,740,432	
4	Public Utilities	252,648	117,363	370,011	
5	Senior Citizens	3,690,679	1,394,405	5,085,084	
6	Sewer Only	1,537,665	735,111	2,272,776	
7	Groundwater	1,828,691	1,011,051	2,839,742	
8	Surcharge	4,437,783	1,069,810	5,507,593	
9	Housing Authority	3,727,058	1,684,377	5,411,435	
10	Charities & Schools	4,345,906	2,017,280	6,363,186	
11	Hospital/University	6,020,177	2,865,004	8,885,181	
12	Hand Bill	8,586,473	4,104,027	12,690,500	
13	xxxxxxxxxx	0	0	0	
14	Water Treatment Plant Sludge	9,662,332	3,767,223	13,429,555	
15	Private Fire Connections	104,040	48,005	152,045	
16	Scheduled (Flat Rate)	451	172	623	
17	xxxxxxxxxx	0	0	0	
18	Total Retail	<u>169,365,275</u>	<u>70,833,863</u>	<u>240,199,138</u>	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
XXXXX - PAGE NOT IN USE	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-18

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLCOLL - Allocation Of O&M Expense To Retail Service - Collection System	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-19

ALLOCATION OF O & M EXPENSE TO RETAIL SERVICE - COLLECTION SYSTEM

Line No.	Customer Class	Collection System							Total Retail Collection System O & M \$	
		Pumping Stations		Sanitary Sewers			Storm Sewers			
		Annual Volume Mcf	Volume Cost \$	Capacity Units Mcf/day	Capacity Cost \$	Capacity Units Mcf/day	Cost \$	Equivalent Meters	Cost \$	
		Retcos-13	Line 21 * Col.(1)	Retcos-2	Line 21 * Col.(3)	Retcos-2	Line 21 * Col.(5)			
1	Residential	2,987,411	596,586	12,276	2,549,347	32,736	5,048,733			8,194,666
2	Commercial	1,421,736	283,921	5,843	1,213,411	15,581	2,402,991			3,900,323
3	Industrial	82,254	16,426	338	70,192	901	138,957			225,575
4	Public Utilities	10,272	2,051	42	8,722	113	17,428			28,201
5	Senior Citizens	109,642	21,895	451	93,659	1,202	185,379			300,933
6	Sewer Only	73,150	14,608	301	62,508	802	123,689			200,805
7	Groundwater	210,000	41,937	1,438	298,628	4,603	709,901			1,050,466
8	Surcharge	0	0	0	0	0	0			0
9	Housing Authority	157,846	31,522	649	134,777	1,730	266,810			433,109
10	Charities & Schools	178,825	35,711	735	152,637	1,960	302,282			490,630
11	Hospital/University	276,290	55,175	1,135	235,705	3,028	466,995			757,875
12	Hand Bill	405,375	80,953	1,666	345,977	4,442	685,071			1,112,001
12	xxxxxxxxxx	0	0	0	0	0	0			0
13	Water Treatment Plant Sludge	292,800	58,472	1,203	249,826	3,209	494,910			803,208
14	Private Fire Connections	4,275	854	18	3,738	47	7,249			11,841
15	Scheduled (Flat Rate)	23	5	0	0	0	0			5
16	xxxxxxxxxx	0	0	0	0	0	0			0
17	Subtotal	6,209,900	1,240,116	26,095	5,419,127	70,354	10,850,395	0	0	17,509,638
18	Infiltration and Inflow	8,926,000	1,782,884	61,137	12,696,273	195,638	30,172,405			44,651,562
19	Allocated to Stormwater								77,749,200	77,749,200
20	Total Retail	15,135,900	3,023,000	87,232	18,115,400	265,992	41,022,800	0	77,749,200	139,910,400
21	Units Costs	Retcos-8	\$0.1997		\$207.6692		\$154.2257			
			1,181,644		5,169,301		10,355,485			
	Infiltration and Inflow Allocation based on Unit Cost		1,782,522		12,696,272		30,172,407			44,651,202
	Difference due to rounding		(362)		(1)		2			(360)
	CHECK - Units of Service	0		0		0				

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
GSCOS - Residential Excluding Senior Citizens Cost Of Service	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-20

Lines 1 to 12 provide the development of Residential Cost of Service as presented on Line 1 of TABLE WW - 13

RESIDENTIAL EXCLUDING SENIOR CITIZENS COST OF SERVICE

Test Year 2019

Line No.	(1) <u>Units of Service</u>	(2) <u>Unit Cost of Service</u> \$	(3) <u>Total Cost of Service</u> \$	<u>Column (3) Reference</u>	
	Retcos-2	Retcos-8			
	Collection System				
	Pumping System				
1	Volume 2,987,411 Mcf	0.1997	596,586	Retcos-15	Retcos-19
2	Capacity 12,276 Mcf/day	232.8485	2,858,448	Retcos-15	Retcos-19
3	Sanitary Sewers - Capacity 32,736 Mcf/day	294.6846	9,646,796	Retcos-15	Retcos-19
	Water Pollution Control Plants				
4	Volume 2,987,411 Mcf	2.4060	7,187,711	Retcos-13	Retcos-15
5	Capacity 12,276 Mcf/day	219.9000	2,699,492	Retcos-13	Retcos-15
6	Suspended Solids 47,536 1,000 lbs	271.2683	12,895,010	Retcos-13	Retcos-15
7	BOD 49,400 1,000 lbs	277.1550	13,691,457	Retcos-13	Retcos-15
	Customer Costs				
8	Meter 429,455 Equiv. Meters	8.0009	3,436,042	Retcos-12	
9	Billing - Sanitary 4,984,873 Equiv. Bills	3.0754	15,330,685	Retcos-12	
10	Warranty Program 415,136 Equiv. Service	0.0000	0	Retcos-12	
11	Industrial Waste Unit 429,455 Equiv. Meters	5.7707	2,478,243	Retcos-12	
12	Subtotal		70,820,470		
	Infiltration Costs				
13	Equivalent Meters - Sanitary Sewer 429,455 Equiv. Meters	29.8554	12,821,546	Retcos-14	* 30%
14	Volume 2,987,411 Mcf	14.0824	42,069,970	Retcos-14	* 70%
15	Total Cost of Service		125,711,986		

Mcf - Thousand cubic feet
Mcf/day - Thousand cubic feet per day
lbs - pounds

File: SCOS17_19_ver9_rates.xls XXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 1:40 p.m.	Test Year	2019	Budget Yr	2017	Ver. 1a Retcos-21
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File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLSINVEST - Retail Sewer Investment And Annual Costs Related To Sanitary Wastewater And Storm Water Functions	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-22

**RETAIL SEWER INVESTMENT AND ANNUAL COSTS
RELATED TO SANITARY WASTEWATER AND STORM WATER FUNCTIONS
Test Year 2019**

Line No.		(1)	(2)	(3)	
		Total	Sanitary Wastewater	Storm Water	
		\$	\$	\$	
	Average Test Year Plant Investment:	Retcos-5 & Retcos-6	Retcos-5	Retcos-5	
1	Sewers	1,521,203,000	547,633,100	973,569,900	Retcos-5
2	All Other	520,937,000	520,937,000		
3	Total	2,042,140,000	1,068,570,100	973,569,900	Retcos-6
	Average Test Year Operating Expense:	Retcos-5 & Retcos-16	Retcos-5	Retcos-5	
4	Sewer Maintenance	82,574,000	33,029,600	49,544,400	Retcos-5
5	Inlet Cleaning	16,215,000		16,215,000	Retcos-5
6	LTCP O&M	19,983,000	7,993,200	11,989,800	Retcos-5
7	Billing	29,925,836	18,069,000	11,856,836	Retcos-5
8	Stormwater Direct	1,244,000		1,244,000	Retcos-3
9	All Other	9,761,107	9,761,107		
10	Total	159,702,943	68,852,907	90,850,036	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RTLPIVVEST - Plant Investment Allocated To Retail Service Customers	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-23

TABLE WW - 9

TEST YEAR INVESTMENT IN THE WASTEWATER SYSTEM
SUMMARY OF ALLOCATIONS TO FUNCTIONAL COST COMPONENTS

Test Year 2019

Line No.	Cost Component	(1) Total Direct Investment Incl. A&G \$ <u>Retcos-6</u>	(2) Investment Allocated to Contract Service \$ <u>Retcos-6</u>	(3) Investment Allocated To Retail Service \$ (1)-(2)
	Collection System			
1	Sewers-Capacity	1,494,948,000	17,991,000	1,476,957,000
2	Pumping Stations Capacity	30,239,000	252,000	29,987,000
3	LTCP Investment	54,692,000	10,446,000	44,246,000
4	Total Collection System	1,579,879,000	28,689,000	1,551,190,000
	Water Pollution Control Plants			
	Northeast Plant			
	Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton			
5	Volume	67,307,000	18,745,000	48,562,000
6	Capacity	31,988,000	7,350,000	24,638,000
7	Suspended Solids	72,697,000	13,704,000	58,993,000
8	BOD	94,462,000	23,524,000	70,938,000
9	Total Northeast Plant	266,454,000	63,323,000	203,131,000
	Southwest Plant			
	Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), & Upper Darby			
10	Volume	70,838,000	30,245,000	40,593,000
11	Capacity	39,761,000	8,489,000	31,272,000
12	Suspended Solids	59,757,000	16,885,000	42,872,000
13	BOD	53,583,000	26,228,000	27,355,000
14	Total Southwest Plant	223,939,000	81,847,000	142,092,000
	Southeast Plant			
	Retail & Springfield (Wyndmoor)			
15	Volume	46,556,000	423,000	46,133,000
16	Capacity	49,385,000	275,000	49,110,000
17	Suspended Solids	25,344,000	79,000	25,265,000
18	BOD	25,288,000	69,000	25,219,000
19	Total Southeast Plant	146,573,000	846,000	145,727,000
20	Total Allocated Treatment Plants	636,966,000	146,016,000	490,950,000
21	Total Allocated System Investment	2,216,845,000	174,705,000	2,042,140,000

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)					DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. Ia
CONTINV - DELCORA Contributed Investment	P.N. 135647.0100					February 11, 2018 9:00 a.m.					Retcos-24
	(1)	(2)	(3)	(4)	(5)						
	Total Investment (4) * 1,000	Allocated Land (5) * 1,000	Depreciable Investment (1) - (2)	Total Investment Sptiallo-43	Allocated Land Sptiallo-43						
Volume	17,333,000	58,000	17,275,000	17,333	58						
Capacity	5,578,000	19,000	5,559,000	5,578	19						
Suspended Solids	7,578,000	25,000	7,553,000	7,578	25						
BOD	13,729,000	46,000	13,683,000	13,729	46						
Total	44,218,000	148,000	44,070,000								

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SWCOS - Storm Water Cost Summary	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Retcos-25

**Storm Water Cost Summary
Test Year 2019**

	(1) Storm Costs \$	(2) Infiltration/ Inflow \$	(3) Total \$
Capital Costs			
Collection System			
Sewers	66,420,000 Retcos-15	(a)	66,420,000
Pumping Stations		461,700 0.30*Retcos-15	461,700
Treatment		4,186,500 0.30*Retcos-15	4,186,500
Total Capital Costs	66,420,000	4,648,200	71,068,200
Operation & Maintenance Expense			
Collection System			
Sewers	49,544,400 Retcos-5	(a)	49,544,400
Pumping Stations		4,343,700 0.30*(Retcos-19)	4,343,700
Treatment		9,924,000 0.30*(Retcos-13)	9,924,000
Inlet Cleaning (Collection System)	16,215,000 Retcos-5		16,215,000
LTCP O&M	11,989,800 Retcos-5		11,989,800
Customer Costs	11,856,836 Retcos-12		11,856,836
Stormwater Direct	1,244,000		1,244,000
Total Operation & Maintenance Expense	90,850,036	14,267,700	105,117,736
Subtotal Excluding Customer Costs	145,413,200	18,915,900	164,329,100
Total Costs Including Customer Costs	157,270,036	18,915,900	176,185,936

Storm water costs include storm water billing costs, the storm water share of collection system costs, and the storm water share of treatment costs. The storm water share of collection system costs are assumed to be 64% (Retcos-5) of Collection System - Sewers O&M and depreciation and return related to 64% of the collection system investment. These amounts are shown in Column 1 along with storm water billing costs.

Storm water treatment costs are costs associated with treating infiltration/inflow that are to be recovered from customers on an equivalent meter basis. In this study 30% (Retcos-14) of the treatment costs for I/I are to be recovered from customers on this basis. Also in this study 30% of Collection System - Pumping Stations costs related to pumping I/I are recovered from customers on this same basis. These costs are shown in Column 2.

CROSS CHECK:

Collection System Stormwater COS	I/I Recovered in Service Charge (a)	Billing/Customer Costs Recovered in Service Charge	Total Stormwater COS
	Trimit Plant Capital Costs - \$ 13,954,846 Retcos-15		
	Trimit Plant O&M - \$ 33,079,922 Retcos-13	Customer Billing Costs 11,856,836	
	Pump. Sta. Capital Costs - \$ 1,538,944 Retcos-15	Stormwater Direct 1,244,000	
	Pump. Sta. O&M - \$ 14,479,157 Retcos-19		
	Total - \$ 63,052,869		
COS \$144,168,700	Total Allocated to Stormwater \$18,915,900 Retcos-14	Total \$13,100,836 Retcos-12	\$176,185,436

(a) Only Treatment Plant and Pumping Stations related costs are considered here since sewer related collection system costs are directly allocated to Stormwater as reflected in the Collection System Stormwater COS of \$144,168,700.

SCOS17_19.XLS

RATEDSN

File: SCOS17_19_ver9_rates.x\Philadelphia Water Department (PWD)	P.N. 135647.0100	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RDSNIndex - Index		February 11, 2018 9:00 a.m.			Ratedsn-1

The "Ratedsn" worksheet develops retail cost of service wastewater rates for treating a Mcf of wastewater.

Range	Description	Page Number	Table
RDSNIndex	Index	Ratedsn-1	
ICRTLCO	Inside City Retail Service Unit Costs Of Service For Rate Design	Ratedsn-2	
CSTSERV	Total Retail Cost of Service	Ratedsn-3	
RTLUCOS	Retail Unit Costs of Service	Ratedsn-4	
RTLADJCO	Adjusted Retail Unit Costs	Ratedsn-5	TABLE WW - 15
DSCUSTCO	Discount Customer COS Recovered by Other Retail Customers	Ratedsn-6	
ADJSUR	Adjusted COS Rates for Surcharge Customers	Ratedsn-7	
AVGCOST	Average Cost for Each Mcf of Water Billed - Adjusted COS Basis	Ratedsn-8	TABLE WW - 17
TYCOS	Test Year COS Adjusted to Recover Discounted COS from All Classes	Ratedsn-9	TABLE WW - 14 [Columns (4) and (8)]

File: SCOS17_19_ver9_rates.x Philadelphia Water Department (PWD)	P.N. 135647.0100	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
ICRTLCOS - Inside City Retail Service Unit Costs Of Service For Rate Design		February 11, 2018 9:00 a.m.			Ratedsn-2

Allocated Infiltration/Inflow COS	\$101,788,567	Retcos-14
Retail Equivalent Meters	579,308	Retcos-14
Sewer Return factor	0.95	
Sen. Cit., 6 cent, N charities discount	25.00%	File: WCOS17_19_ver8_rates.xls - Retcos-4
Housing Authority discount	5.00%	File: WCOS17_19_ver8_rates.xls - Retcos-4
Total Test Year COS	441,547,800	
Water Treatment Plant Sludge	13,429,555	Retcos-16
Contract Customers COS	\$34,679,618	Retcos-11
Cont Cust TY Receipts Under Exist. Rates	37,713,296	Financial Plan
Domestic SS strength (ppm)	255	Units-9
Domestic BOD strength (ppm)	265	Units-9
TY Surcharge SS units - 1,000 lbs	2,340	Units-9
TY Surcharge BOD units - 1,000 lbs	11,520	Units-9

Sewer Return factor for Wholesale and Groundwater

1.00

Groundwater SS strength (ppm)
Groundwater BOD strength (ppm)

70
10

File: SCOS17_19_ver9_rates.x\Philadelphia Water Department (PWD)	P.N. 135647.0100	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
CSTSERV - Total Retail Cost of Service		February 11, 2018 9:00 a.m.			Ratedsn-3

Line No.	Customer Class	Total Cost of Service
		\$
	Retcos-16	
	Retail Service	
1	Residential	125,711,986
2	Commercial	48,738,989
3	Industrial	2,740,432
4	Public Utilities	370,011
5	Senior Citizens	5,085,084
6	Sewer Only	2,272,776
7	Groundwater	2,839,742
8	Surcharge	5,507,593
9	Housing Authority	5,411,435
10	Charities & Schools	6,363,186
11	Hospital/University	8,885,181
12	Hand Bill	12,690,500
13	xxxxxxxxxx	0
14	Water Treatment Plant Sludge	13,429,555
15	Private Fire Connections	152,045
16	Scheduled (Flat Rate)	623
17	xxxxxxxxxx	0
18	Total Retail	240,199,138

File: SCOS17_19_ver9_rates.x Philadelphia Water Department (PWD)														P.N. 135647.0100	DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a	
RTLUCOS - Retail Unit Costs of Service															February 11, 2018		9:00 a.m.					Ratesn-4
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)								
	Collection System				Water Pollution Control Plants				Customer Costs													
	Pumping Station		Sanitary Sewers -				Suspended		Billing		Retail		Direct Excess		Warranty							
Line No.	Volume	Capacity	Capacity	Storm Costs	Volume	Capacity	Solids	BOD	Meter Costs	Sanitary	Stormwater	Customers	Wastewater	Incentive	Program							
	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8	Retcos-8							
O&M Expense																						
1	Total Expense - \$	3,023,000	18,115,400	41,022,800	77,749,200	26,516,000	11,496,000	33,841,799	21,891,000	4,635,000	18,069,000	11,856,836	3,343,000	1,680,000	1,244,000	0						
2	Unit Expense - \$/unit	0.1997	207.6692	154.2257		1.7519	131.7865	212.7799	196.1700	8.0009	3.0754	5.7707	#N/A		0.0000							
Capital Expense																						
3	Total Expense - \$	0	2,196,400	37,360,900	66,419,500	9,900,300	7,686,300	9,302,400	9,037,300	0	0	0	0	0	0	0						
4	Total Unit Capital Costs		25.1793	140.4589		0.6541	88.1135	58.4884	80.9850	0.0000	0.0000	0.0000	#N/A		0.0000							
4	Total Unit Costs	0.1997	232.8485	294.6846		2.4060	219.9000	271.2683	277.1550	8.0009	3.0754	5.7707	#N/A		0.0000							
	Total Expense	3,023,000	20,311,800	78,383,700	144,168,700	36,416,300	19,182,300	43,144,199	30,928,300	4,635,000	18,069,000	11,856,836	3,343,000	1,680,000	1,244,000	0	416,386,135					

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RTLADJCOS - Adjusted Retail Unit Costs	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Ratedsn-5

Rate Design - Retail COS Unit Costs Adjusted to Subsidize Discount Customers and to Reflect Conversion to Billing Units from Wastewater Units

TABLE WW - 15

INSIDE CITY RETAIL SERVICE UNIT COSTS OF SERVICE FOR RATE DESIGN

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Annual Unadjusted Unit Cost \$/unit Ratedsn-4	(3) COS Deficit Recovery Factor Ratedsn-6	(4) Billing Units Conversion Factor Ratedsn-2	(5) Total Adjustment Factor (3)*(4)	(6) Annual Adjusted Unit Cost \$/unit (2)*(5)	Monthly Adjusted Unit Cost \$/unit (6) / 12
	Collection System							
	Pumping Station							
1	Volume	Mcf	0.1997	1.0242	0.95	0.9730	0.1943 /Mcf	
2	Capacity	Mcf/day	232.8485	1.0242	0.95	0.9730	226.5616 Mcf/day	\$18.8801
3	Sanitary Sewers - Capacity	Mcf/day	294.6846	1.0242	0.95	0.9730	286.7281 Mcf/day	\$23.8940
	WPC Plants							
4	Volume	Mcf	2.4060	1.0242	0.95	0.9730	2.3410 /Mcf	
5	Capacity	Mcf/day	219.9000	1.0242	0.95	0.9730	213.9627 Mcf/day	\$17.8302
6	Suspended Solids	1,000 lbs	271.2683	1.0242	1.00	1.0242	277.8330 /1,000 lbs	
7	BOD	1,000 lbs	277.1550	1.0242	1.00	1.0242	283.8622 /1,000 lbs	
	Customer Costs							
8	Meter Costs	Eq. Meters	8.0009	1.0242	1.00	1.0242	8.1945 /year	\$0.6829
	Billing Costs							
9	Sanitary	Eq. Bills	3.0754	1.0242	1.00	1.0242	3.1498 /monthly bill	
10	Industrial Waste Unit - Retail	Eq. Meters	5.7707	1.0242	1.00	1.0242	5.9104 /year	\$0.4925
11	Warranty Program	Eq. Service	0.0000	1.0242	1.00	1.0242	0.0000 /year	\$0.0000
12	I/I - Customer Related - Sanitary (a)	Eq. Meters	29.8554	1.0242	1.00	1.0242	30.5779 /year	\$2.5482
13	Infiltration/Inflow - Volume Related (a)	Volume	14.0824	1.0242	0.95	0.9730	13.7022 /Mcf	
(a)	Allocated Infiltration/Inflow COS	\$101,788,567	Ratedsn-2					
	% Allocated I/I to Retail Equiv. Mtrs.	17.0%	Retcos-14					
	Allocated I/I to Retail Equiv. Mtrs.	\$17,295,468						
	Retail Equivalent Meters	579,308	Ratedsn-2					
	\$/Eq Meter/year	\$29.8554	\$/Mcf					
	Total Retail I/I COS	\$101,788,567	Retcos-14					
	% Alloc. I/I to Retail Vol.	83.0%	Retcos-14					
	Alloc. I/I to Retail Vol.	\$84,493,099						
	Retail Sanitary TY Volume - Mcf	5,999,900	Units-13					
	I/I Cost	\$14.0824	\$/Mcf					

File: SCOS17_19_ver9_rates.x\Philadelphia Water Department (PWD)	P.N. 135647.0100	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
DSCUSTCOS - Discount Customer COS Recovered by Other Retail Customers			February 11, 2018	9:00 a.m.			Ratedsn-6

Test Year COS for Senior Citizens, "6 Cent" and "N" Charities to be Recovered from All Other Retail and Development of COS Deficit Recovery Factor
 Universities, Colleges, Hospitals, Charities, Board of Education and Senior Citizens are billed at 75% of regular rates.

	(1)	(2)	(3)
	Allocated COS <u>Ratedsn-3</u>	Discount (a) <u>(1) * Ratedsn-2</u>	Adjusted COS <u>(1)-(2)</u>
Test Year Allocated COS			
Housing Authority	\$5,411,435	\$270,572	\$5,140,863
Senior Citizens	5,085,084	1,271,271	3,813,813
Charities & Schools	6,363,186	1,590,797	4,772,389
Hospital/University	8,885,181	2,221,295	6,663,886
Total Discount Customers	\$25,744,886	\$5,353,935	\$20,390,951

Approx COS to be recovered from these classes = \$20,390,951

Approximate portion of Discount Customers COS to be recovered by other retail:

\$25,744,886 - \$20,390,951 = \$5,353,935

Percent increase in Allocated COS of all retail:

$$\frac{\text{Above } \$5,353,935}{\text{Ratedsn-2 } \$240,199,138 - \text{WTP Sludge } \$13,429,555} \times 100 = 2.4181\%$$

Above
\$5,353,935
Discount Customers amount of COS
not recovered from them (approx.)

(a) Senior Citizens, "6 Cent" and "N" charities receive a 25 percent discount and the Housing Authority receives a 5 percent discount.

File: SCOS17_19_ver9_rates.xPhiladelphia Water Department (PWD)	P.N. 135647.0100	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
ADJSUR - Adjusted COS Rates for Surcharge Customers		February 11, 2018 9:00 a.m.			Ratedsn-7

Adjusted COS Rates for Surcharge Customers

		<u>Suspended Solids</u>		<u>BOD</u>	
Excess Strength Wastewater					
Unadjusted Unit Cost	Ratedsn-4	\$271.2683	/1,000 lbs	\$277.1550	/1,000 lbs
Times adder for COS deficit recovery (a)		0.9730		0.9730	
Times adder for Excess Strength Direct (b)		1.4389		1.4389	
Adjusted Unit Charge - Excess Strength		\$379.7852	/1,000 lbs	\$388.0268	/1,000 lbs
	USE	\$0.380	/lb SS	\$0.388	/lb BOD
	===	=====		=====	
Units of Service		2,340	1,000 lbs	11,520	1,000 lbs
(a) Ratedsn-5, Line 6 times Sewer Return factor from Ratedsn-2.					
(b) Industrial Waste Unit - Direct					
Excess Strength Wastewater		Ratedsn-4		\$1,680,000	
----- = ----- = 43.8918%					
Total Surcharge Class COS		\$5,507,593	-	\$1,680,000	
		Ratedsn-9			

TABLE WW - 17

DEVELOPMENT OF COST OF SERVICE VOLUME CHARGE PER MCF OF NORMAL STRENGTH SANITARY WASTEWATER

Line No.	Cost Component	(1) Units	(2) Adjusted Unit Cost \$/unit Ratedsn-5	(3) Number of Units	(4) Total Cost \$ (2)*(3)
1	Collection System Pumping Stations Volume	Mcf	0.1943	1.0000	0.1943
2	Capacity	Mcf/day/mo.	18.8801	0.0493 (a)	0.9308
3	Sanitary Sewers: Capacity	Mcf/day/mo.	23.8940	0.1316 (b)	3.1445
4	Water Pollution Control Plants Volume	Mcf	2.3410	1.0000	2.3410
5	Capacity	Mcf/day/mo.	17.8302	0.0493 (a)	0.8790
6	Suspended Solids	1,000 lbs	277.8330	0.0159 (c)	4.4175
7	BOD	1,000 lbs	283.8622	0.0165 (d)	4.6837
8	Total Cost per Mcf				16.5908 Ratedsn-5
9	Infiltration/Inflow Cost	Mcf	13.7022	1.0000	13.7022
10	Total Cost + Infiltration/Inflow per Mcf				30.2930
11	Total Cost per Mcf - Rounded				30.29

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

- (a) (1.0 Mcf * 1 month/30.4 days) * 1.5 = 0.0493 Mcf/day/mo
- (b) (1.0 Mcf * 1 month/30.4 days) * 4.0 = 0.1316 Mcf/day/mo
- (c) (1.0 Mcf * [Units-9](#) 255 ppm * 0.00748 million gals / Mcf * 8.34 lbs/gal / 1,000 = 0.0159 1,000 lbs
- (d) (1.0 Mcf * [Units-9](#) 265 ppm * 0.00748 million gals / Mcf * 8.34 lbs/gal / 1,000 = 0.0165 1,000 lbs

TABLE XXXX

DEVELOPMENT OF COST OF SERVICE VOLUME CHARGE PER MCF OF GROUNDWATER STRENGTH SANITARY WASTEWATER

Line No.	Cost Component	(1) Units	(2) Adjusted Unit Cost \$/unit Ratedsn-5	(3) Number of Units	(4) Total Cost \$ (2)*(3)
1	Collection System Pumping Stations Volume	Mcf	0.1997	1.0000	0.1997
2	Capacity	Mcf/day/mo.	19.4040	0.0822 (a)	1.5950
3	Sanitary Sewers: Capacity	Mcf/day/mo.	24.5571	0.2632 (b)	6.4634
4	Water Pollution Control Plants Volume	Mcf	2.4060	1.0000	2.4060
5	Capacity	Mcf/day/mo.	18.3250	0.0822 (a)	1.5063
6	Suspended Solids	1,000 lbs	271.2683	0.0044 (c)	1.1936
7	BOD	1,000 lbs	277.1550	0.0006 (d)	0.1663
8	Total Cost per Mcf				13.5303
9	Infiltration/Inflow Cost				
10	Total Cost + Infiltration/Inflow per Mcf				13.5303
11	Total Cost per Mcf - Rounded				13.53

Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

- (a) (1.0 Mcf * 1 month/30.4 days) * 2.5 = 0.0822 Mcf/day/mo
- (b) (1.0 Mcf * 1 month/30.4 days) * 8.0 = 0.2632 Mcf/day/mo
- (c) (1.0 Mcf * [Units-9](#) 70 ppm * 0.00748 million gals / Mcf * 8.34 lbs/gal / 1,000 = 0.0044 1,000 lbs
- (d) (1.0 Mcf * [Units-9](#) 10 ppm * 0.00748 million gals / Mcf * 8.34 lbs/gal / 1,000 = 0.0006 1,000 lbs

ADDITIONAL COST OF SERVICE TO BE RECOVERED

Line No.	Customer Class	(1) Total Cost of Service \$ <u>Ratedsn-3</u>	(2) Adjustment Factor	(3) Adjusted COS \$
Retail Service				
1	Residential	125,711,986	1.0242 (a)	128,752,250
2	Commercial	48,738,989	1.0242	49,917,498
3	Industrial	2,740,432	1.0242	2,806,696
4	Public Utilities	370,011	1.0242	378,958
5	Senior Citizens	5,085,084	0.7681 (b)	3,905,853
6	Sewer Only	2,272,776	1.0242 (a)	2,327,732
7	Groundwater	2,839,742	1.0242 (a)	2,908,407
8	Surcharge	5,507,593	1.0242 (c)	5,640,877
9	Housing Authority	5,411,435	0.9730 (b)	5,265,326
10	Charities & Schools	6,363,186	0.7681 (b)	4,887,563
11	Hospital/University	8,885,181	0.7681 (b)	6,824,708
12	Hand Bill	12,690,500	1.0242 (a)	12,997,356
13	xxxxxxxxxx	0	1.0242 (a)	0
14	Water Treatment Plant Sludge	13,429,555	1.0000 (d)	13,429,555
15	Private Fire Connections	152,045	1.0242 (a)	155,721
16	Scheduled (Flat Rate)	623	1.0242 (a)	638
17	xxxxxxxxxx	0	1.0242 (a)	0
18	Total Retail	240,199,138		240,199,138
	Wholesale Contract Customers	Ratedsn-2 & Retcos-9		Ratedsn-2 & Retcos-9
19	Allocations	34,679,618		34,679,618
20	Management Fee	3,874,759		3,874,759
21	Total Contract Customers	38,554,377		38,554,377
22	Total COS	278,753,515		278,753,515
			Difference	0
			% Difference	0.00%

- (a) Percent increase in Allocated COS of all retail is 1.02418 [Ratedsn-6](#)
- (b) Senior Citizens and charities pay only 25% of general service rates and the Housing Authority pays 5% of general service rates.
- (c) Surcharge 1.0242 x 1.0000 1.0242
- (d) Water Treatment Plant Sludge does not share in the recovery of unrecovered costs of service from other classes.

Line No.	Customer Class	(1) Initial Allocated Cost of Service \$	(2) Deficit to Be Recovered From Retail Classes \$	(3) (1) \$	(4) Line 4 Below Prorated on (3) \$
1	Senior Citizens	Above 5,085,084	Above 1,179,231	5,085,084	1,057,000
2	Charities	15,248,367	3,536,096	15,248,367	3,171,000
3	Housing Authority	5,411,435	146,109	5,411,435	1,125,000
4	Total	25,744,886	4,861,436	25,744,886	5,353,935 <==== Initial estimate of Discount Customers COS recovered by other retail.

SCOS17_19.XLS

RATES

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RATESIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Rates-1

The "Rates" worksheet develops contract service lump sum charges and unit costs.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
RATESIndex	Index	Rates-1	
WHLCOST	Wholesale Lump Sum Costs - Maintenance, Customer & Capital Costs	Rates-2	
WHLALLO	Summary of Allocated Costs for Wholesale Customers	Rates-3	
IIRATE	Contract Service Rate Design Adjustment to Recover I/I Costs	Rates-4	
WHLCHARG	Summary Of Charges For Wholesale Contract Customers	Rates-5	TABLE WH - 30
CTRCTREV1	Contract Service Revenues - Page 1	Rates-6	
CTRCTREV2	Contract Service Revenues - Page 2	Rates-7	
PLANTOM	Unit Net O&M Costs by Plant	Rates-8	

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WHL COST - Wholesale Lump Sum Costs - Maintenance, Customer & Capital Costs	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Rates-2

ANNUAL LUMP SUM COSTS FOR SEWER MAINTENANCE, CUSTOMER REATED COSTS, AND CAPITAL COSTS FOR FACILITIES USED BY WHOLESALE CONTRACT CUSTOMERS

Line No.	Contract Customers	Allocated Investment		Depreciable Plant		Customer Related Costs	Annual Lump Sum Costs			Total Annual Lump Sum Cost		
		Collection System	Treatment and Pumping	Collection System	Treatment and Pumping		Depreciation	Expense (b)	Return on Investment			
		\$	\$	\$	\$	\$	\$	\$	\$	\$		
		Retcos-10	Retcos-10	Retcos-10	Retcos-10 (b)	Retcos-10	Retcos-10				(5)+...+(10)	
1	Abington	809,000	4,552,000	809,000	4,535,000	42,000	14,000	16,200	113,400	60,700	341,400	587,700
2	Bensalem	1,110,000	8,120,000	1,110,000	8,091,000	44,000	49,000	(a)	(a)	(a)	(a)	93,000
3	Bucks County	4,044,000	27,354,000	4,044,000	27,255,000	237,000	16,000	49,600	79,900	185,900	239,800	808,200
4	Cheltenham	1,850,000	11,676,000	1,850,000	11,633,000	114,000	34,000	37,000	290,800	138,800	875,700	1,490,300
5	DELCORA	5,164,000	47,022,000	5,164,000	46,875,000	363,000	43,000	103,200	70,100	387,200	210,300	1,176,800
6	Lower Merion	1,618,000	14,616,000	1,618,000	14,571,000	72,000	54,000	(a)	(a)	(a)	(a)	126,000
7	Lower Moreland	901,000	1,880,000	901,000	1,873,000	42,000	21,000	18,000	46,800	67,600	141,000	336,400
8	Lower Southa mpton	10,747,000	9,741,000	10,747,000	9,706,000	446,000	16,000	155,200	175,200	582,100	527,600	1,902,100
9	Springfield (less Wyndmoor)	1,140,000	4,982,000	1,140,000	4,966,000	61,000	27,000	22,800	124,200	85,500	373,700	694,200
10	Springfield (Wyndmoor)	331,000	846,000	331,000	845,000	13,000	8,000	6,600	21,100	24,800	63,500	137,000
11	Upper Darby	723,000	15,479,000	723,000	15,430,000	29,000	14,000	(a)	(a)	(a)	(a)	43,000
12	Total	28,437,000	146,268,000	28,437,000	145,780,000	1,463,000	296,000	408,600	921,500	1,532,600	2,773,000	7,394,700

(a) It is assumed that Bensalem, Lower Merion, and Upper Darby contributes its entire allocated plant investment, and therefore, are not allocated any depreciation expense or return on investment. DELCORA, Bucks County, and Lower Southampton are prior contribution customers which have been converted to depreciation and return customers.

(b) Collection System Annual Depreciation Rate: 2.00%
 Trtmt & Pumping Plant Annual Depreciation Rate: 2.50%
 Township Customers Rate of Return: 7.50%

(c) Excludes \$0.0 Pumping Stations-Direct to Bucks County, \$66,000.0 Pumping Stations-Lower Merion volume and capacity costs recovered through volume and capacity rates, and \$46,000.0 Pumping Stations-Springfield (excl Wyndmoor) volume and capacity costs recovered through volume and capacity rates.

Ref: [Retcos-11](#)

**SUMMARY OF ALLOCATED COST OF SERVICE
FOR CONTRACT CUSTOMERS
Test Year 2019**

Customer	Allocated Investment \$	Allocated Depreciation Investment \$	O&M Expense \$	Depreciation Expense \$	Return on Investment \$	Allocated Cost of Service \$ Rounded
Abington	5,361,000	5,344,000	921,000	129,555	402,075	1,453,000
Bensalem	9,230,000	9,201,000	1,702,000	(a)	(a)	1,702,000
Bucks County	31,398,000	31,299,000	7,368,000	129,485	425,625	7,923,000
Cheltenham	13,526,000	13,483,000	2,127,000	327,825	1,014,450	3,469,000
DELCORA	52,186,000	52,039,000	8,045,000	173,365	597,450	8,816,000
Lower Merion	16,234,000	16,189,000	2,275,000	(a)	(a)	2,275,000
Lower Moreland	2,781,000	2,774,000	480,000	64,845	208,575	753,000
Lower Southampton	20,488,000	20,453,000	2,184,000	330,481	1,109,767	3,624,000
Springfield (less Wyndmoor)	6,122,000	6,106,000	1,076,000	146,950	459,150	1,682,000
Springfield (Wyndmoor)	1,177,000	1,176,000	158,000	27,745	88,275	274,000
Upper Darby	16,202,000	16,153,000	2,708,000	(a)	(a)	2,708,000
Total	174,705,000	174,217,000	29,044,000	1,330,251	4,305,367	34,679,000

(a) It is assumed that Bensalem, Lower Merion, and Upper Darby contribute their entire allocated plant investment, and therefore, are not allocated any depreciation expense or return on investment.

Ref: Rates-8

RATE DESIGN ADJUSTMENT TO UNIT O&M EXPENSE EXPENSE IN ORDER TO RECOVER COSTS ASSOCIATED WITH I/I WHEN RATES ARE APPLIED
CONTRACT ADJUSTMENTS CURRENTLY NOT IN USE

Line No.	Contract Customer	Unit Costs		Suspended Solids \$/1,000 lbs Rates-8	BOD \$/1,000 lbs Rates-8
		Volume \$/Mcf Rates-8	Capacity \$/Mcf/day Rates-8		
<u>Abington, Bensalem, Bucks County, Lower Moreland and Lower Southampton</u>					
1	Northeast WP CP - Preliminary Trmt.	0.1091	67.7859		
2	Northeast WP CP - Other	1.6722	79.6878	217.1024	249.7159
3	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
4	Total	1.7813	147.4737	217.1024	249.7159
<u>Cheltenham</u>					
5	Northeast WP CP	0.0000	0.0000		
6	Northeast WP CP - Other	1.6722	79.6878	217.1024	249.7159
7	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
8	Total	1.6722	79.6878	217.1024	249.7159
<u>DELCORA</u>					
9	Southwest WP CP	1.5778	84.8363	188.4205	190.6239
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.5778	84.8363	188.4205	190.6239
<u>Lower Merion</u>					
10	Southwest WP CP	1.6332	86.7678	192.4428	191.7510
11	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
12	Neill Drive Pumping Station	0.8083	484.4805		
13	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
14	Total (a)	2.4415	571.2483	192.4428	191.7510
<u>Springfield (less Wyndmoor)</u>					
15	Southwest WP CP	1.6332	86.7678	192.4428	191.7510
16	Central Schuylkill Pumping Station	0.2581	18.8717		
17	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
18	Total (b)	1.8913	105.6395	192.4428	191.7510
<u>Upper Darby</u>					
19	Southwest WP CP	1.6332	86.7678	192.4428	191.7510
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.6332	86.7678	192.4428	191.7510
<u>Springfield (Wyndmoor)</u>					
20	Southeast WP CP	2.3451	188.8710	284.8195	125.3773
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	2.3451	188.8710	284.8195	125.3773

These calculations can be used to determine the "CONTRACT ADJUSTMENT" required to achieve the target (or adopted rates).

	Target/Adopted Unit Costs		Suspended Solids \$/1,000 lbs	BOD \$/1,000 lbs
	Volume \$/Mcf	Capacity \$/Mcf/day		
CURRENTLY NOT IN USE				
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A
Adjustment	#N/A	#N/A	#N/A	#N/A
Target	#N/A	#N/A	#N/A	#N/A

(a) \$1.6332 and \$86.7678 rates are applied to all Lower Merion volume and capacity whereas \$0.8083 and \$484.4805 are applied to only to volume and capacity units related to flow through the City Line Avenue and Presidential Drive connection.

(b) \$1.8913 and \$105.6395 are applicable to all Springfield (less Wyndmoor) volume and capacity units.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WHLCHARGE - Summary Of Charges For Wholesale Contract Customers	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Rates-5
A lag factor is applied to all wholesale customer rates equal	1.0000						
Months in effective test year:	12.00						
Months to collect COS:	12.00						
BUT, DELCORA is for	12.00	months, or an adjustment factor of					1.0000

TABLE 0

SUMMARY OF TEST YEAR CHARGES FOR WHOLESAL CONTRACT CUSTOMERS

Test Year 2019

Line No.	Contract Customers	(1)	(2)	(3) Unit Costs				(5)
				(4)	(4)	(4)	(4)	
		Annual Lump Sum Cost	Volume	Capacity (a)	Suspended Solids	BOD		
		\$	\$/ Mcf	\$/cfs	\$/1,000 lbs	\$/1,000 lbs		
		<u>Rates-2</u>	<u>Rates-4</u>	<u>Rates-4</u>	<u>Rates-4</u>	<u>Rates-4</u>		
1	Abington	NE 587,700	1.7813	12,742	217.10	249.72		
2	Bensalem	NE 93,000	1.7813	12,742	217.10	249.72		
3	Bucks County (b)	NE 808,200	1.7813	12,742	217.10	249.72		
4	Cheltenham	NE 1,490,300	1.6722	6,885	217.10	249.72		
5	DELCORA	SW 1,176,800	1.5778	7,330	188.42	190.62		
6	Lower Merion (c) (d)	SW 126,000	1.6332	7,497	192.44	191.75		
7	Lower Moreland	NE 336,400	1.7813	12,742	217.10	249.72		
8	Lower Southampton	NE 1,902,100	1.7813	12,742	217.10	249.72		
9	Springfield (less Wyndmoor)	SW 694,200	1.8913	9,127	192.44	191.75		
10	Springfield (Wyndmoor)	SE 137,000	2.3451	16,318	284.82	125.38		
11	Upper Darby	SW 43,000	1.6332	7,497	192.44	191.75		
12	Total	7,394,700						

- (a) Annual Cost.
- (b) Charges for recovery of costs associated with odor control of Bucks County wastewater are in addition to the charges shown herein.
- (c) For flow through City Line Avenue and Presidential Drive connection, an additional cost of \$0.8083 per Mcf is applicable for costs related to the Neill Drive Pump Station.
- (d) For contract capacity at the City Line Avenue and Presidential Drive connection, an additional charge of \$484.48 per Mcf/day (\$41,859.1 per cfs) is applicable to costs related to Neill Drive Pump Station.
- (e) All costs inflated 0.0% due to new rates being in place 12.0 months of an effective 12 month test year.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
CTRCTREV1 - Contract Service Revenues - Page 1	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Rates-6
Reference: LINKS					

**COMPARISON OF CONTRACT SERVICE REVENUES
UNDER EXISTING AND ADJUSTED RATES
Test Year 2019**

(1) Units of Service	(2) Existing Rates		(3) Adjusted Rates		(4) Revenue Difference \$	(5) Revenue \$	(6) Revenue Difference \$	Column (5) Charges Before Management Fee \$	Allocated Cost of Service from Rates-2 \$	Calculated Revenues Less COS Amount \$	Percent of COS %
	Unit Charge \$/unit	Revenue \$	Unit Charge \$/unit	Revenue \$							
Abington											
O&M Charges											
Volume (Mcf)	98,000	1,6303	159,769	1,7813	174,567	14,798					
Capacity (cfs)	9,2470	12,295	113,692	12,742	117,825	4,133					
Suspended Solids (1,000 lbs)	1,000	223.88	223,875	217.10	217,100	(6,775)					
BOD (1,000 lbs)	1,400	250.28	350,397	249.72	349,608	(789)					
Subtotal			847,733		859,100	11,367					
Lump Sum Charge		595,000	595,000	587,700	587,700	(7,300)	1,446,800	1,453,000	(6,200)	-0.43%	
Management Fee		12.00%	173,128	12%	173,616	488					
Total Service Charge			1,615,861		1,620,416	4,555					
Bensalem											
O&M Charges											
Volume (Mcf)	170,000	1,6303	277,151	1,7813	302,821	25,670					
Capacity (cfs)	11,7400	12,295	144,343	12,742	149,591	5,248					
Suspended Solids (1,000 lbs)	2,250	223.88	503,719	217.10	488,475	(15,244)					
BOD (1,000 lbs)	2,700	250.28	675,766	249.72	674,244	(1,522)					
Subtotal			1,600,979		1,615,131	14,152					
Lump Sum Charge		91,000	91,000	93,000	93,000	2,000	1,708,131	1,702,000	6,131	0.36%	
Management Fee		10.00%	169,198	10%	170,813	1,615					
Total Service Charge			1,861,177		1,878,944	17,767					
Bucks County											
O&M Charges											
Volume (Mcf)	800,000	1,6303	1,304,240	1,7813	1,425,040	120,800					
Capacity (cfs)	85,0800	12,295	1,046,059	12,742	1,084,089	38,030					
Suspended Solids (1,000 lbs)	10,500	223.88	2,350,690	217.10	2,279,550	(71,140)					
BOD (1,000 lbs)	9,900	250.28	2,477,810	249.72	2,472,228	(5,582)					
Subtotal			7,178,799		7,260,907	82,108					
Lump Sum Charge (a)		814,000	814,000	808,200	808,200	(5,800)	8,069,107	7,923,000	146,107	1.84%	
Management Fee		10.00%	799,280	10%	806,911	7,631					
Total Service Charge			8,792,079		8,876,018	83,939					
Cheltenham											
O&M Charges											
Volume (Mcf)	325,000	1,5290	496,925	1,6722	543,465	46,540					
Capacity (cfs)	20,7500	6,696	138,942	6,885	142,864	3,922					
Suspended Solids (1,000 lbs)	2,800	223.88	626,851	217.10	607,880	(18,971)					
BOD (1,000 lbs)	2,400	250.28	600,681	249.72	599,328	(1,353)					
Subtotal			1,863,399		1,893,537	30,138					
Lump Sum Charge		1,495,000	1,495,000	1,490,300	1,490,300	(4,700)	3,383,837	3,469,000	(85,163)	-2.45%	
Management Fee		12.00%	403,008	12%	406,060	3,052					
Total Service Charge			3,761,407		3,789,897	28,490					

Lower Moreland

O&M Charges										
Volume (Mcf)	55,000	1,6303	89,667	1.7813	97,972	8,305				
Capacity (cfs)	5.9410	12,295	73,045	12,742	75,700	2,655				
Suspended Solids (1,000 lbs)	600	223.88	134,325	217.10	130,260	(4,065)				
BOD (1,000 lbs)	450	250.28	112,628	249.72	112,374	(254)				
Subtotal			409,665		416,306	6,641				
Lump Sum Charge		307,000	307,000	336,400	336,400	29,400	752,706	753,000	(294)	-0.04% REVISE - SEEMS HIGH
Management Fee		12.00%	86,000	12%	90,325	4,325				
Total Service Charge			802,665		843,031	40,366				

(a) See footnote (a) on sheet Rates-7.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
CTRCTREV2 - Contract Service Revenues - Page 2	P.N. 135647.0100	February 11, 2018 9:00 a.m.			Rates-7
Reference: LINKS					

**COMPARISON OF CONTRACT SERVICE REVENUES
UNDER EXISTING AND ADJUSTED RATES
Test Year 2019**

	(1)	(2)	(3)	(4)	(5)	(6)				
	Units of Service	Existing Rates Unit Charge \$/unit	Revenue \$	Adjusted Rates Unit Charge \$/unit <u>Rates-5</u>	Revenue \$	Revenue Difference \$				
			(1) * (2)		(1) * (4)	(5) - (3)				
Lower Southampton										
O&M Charges										
Volume (Mcf)	260,000	1.6303	423,878	1.7813	463,138	39,260				
Capacity (cfs)	15,7900	12.295	194,138	12.742	201,196	7,058				
Suspended Solids (1,000 lbs)	2,500	223.88	559,688	217.10	542,750	(16,938)				
BOD (1,000 lbs)	2,100	250.28	525,596	249.72	524,412	(1,184)				
Subtotal			1,703,300		1,731,496	28,196				
Lump Sum Charge		1,780,000	1,780,000	1,902,100	1,902,100	122,100	3,633,596	3,624,000	9,596	0.26%
Management Fee		12.00%	417,996	12%	436,032	18,036				
Total Service Charge			3,901,296		4,069,628	168,332				
DELCORA										
O&M Charges										
Volume (Mcf)	1,200,000	1.3979	1,677,480	1.5778	1,893,360	215,880				
Capacity (cfs)	155,0000	6.258	969,990	7.330	1,136,150	166,160				
Suspended Solids (1,000 lbs)	13,000	219.00	2,847,017	188.42	2,449,460	(397,557)				
BOD (1,000 lbs)	11,300	177.89	2,010,125	190.62	2,154,006	143,881				
Subtotal			7,504,612		7,632,976	128,364				
Lump Sum Charge		892,000	892,000	1,176,800	1,176,800	284,800	8,809,776	8,816,000	(6,224)	-0.07%
Management Fee		12.00%	1,007,593	12%	1,057,173	49,580				
Total Service Charge			9,404,205		9,866,949	462,744				
Lower Merion										
O&M Charges										
Volume (Mcf) (b)	350,000	1.4455	505,925	1.6332	583,179	77,254				
Capacity (cfs) (c)	31,5700	6,401	202,080	7,497	292,396	90,316				
Suspended Solids (1,000 lbs)	3,500	223.62	782,665	192.44	673,550	(109,115)				
BOD (1,000 lbs)	3,100	178.92	554,645	191.75	594,428	39,783				
Subtotal			2,045,315		2,143,553	98,238				
Lump Sum Charge		123,000	123,000	126,000	126,000	3,000	2,269,553	2,275,000	(5,447)	-0.24%
Management Fee		10.00%	216,832	10%	226,955	10,123				
Total Service Charge			2,385,147		2,496,508	111,361				
Springfield (excl. Wyndmoor)										
O&M Charges										
Volume (Mcf)	150,000	1.6672	250,080	1.8913	283,695	33,615				
Capacity (cfs)	4,6000	11,901	54,745	9,127	41,984	(12,761)				
Suspended Solids (1,000 lbs)	1,800	223.62	402,513	192.44	346,392	(56,121)				
BOD (1,000 lbs)	1,700	178.92	304,160	191.75	325,975	21,815				
Subtotal			1,011,498		998,046	(13,452)				
Lump Sum Charge		703,000	703,000	694,200	694,200	(8,800)	1,692,246	1,682,000	10,246	0.61%
Management Fee		12.00%	205,740	12%	203,070	(2,670)				
Total Service Charge			1,920,238		1,895,316	(24,922)				

Upper Darby

O&M Charges										
Volume (Mcf)	460,000	1,4455	664,930	1.6332	751,272	86,342				
Capacity (cfs)	35.0000	6,401	224,035	7,497	262,395	38,360				
Suspended Solids (1,000 lbs)	4,600	223.62	1,028,645	192.44	885,224	(143,421)				
BOD (1,000 lbs)	4,000	178.92	715,671	191.75	767,000	51,329				
Subtotal			2,633,281		2,665,891	32,610				
Lump Sum Charge		55,000	55,000	43,000	43,000	(12,000)	2,708,891	2,708,000	891	0.03%
Management Fee		10.00%	268,828	10%	270,889	2,061				
Total Service Charge			2,957,109		2,979,780	22,671				

Springfield (Wyndmoor)

O&M Charges										
Volume (Mcf)	19,000	1,9726	37,479	2.3451	44,557	7,078				
Capacity (cfs)	1,9300	13,894	26,815	16,318	31,494	4,679				
Suspended Solids (1,000 lbs)	160	331.38	53,021	284.82	45,571	(7,450)				
BOD (1,000 lbs)	125	114.87	14,358	125.38	15,673	1,315				
Subtotal			131,673		137,295	5,622				
Lump Sum Charge		147,000	147,000	137,000	137,000	(10,000)	274,295	274,000	295	0.11%
Management Fee		12.00%	33,441	12%	32,915	(526)				
Total Service Charge			312,114		307,210	(4,904)				

Total Contract Service Revenue 37,713,298 38,623,697 910,399

divided by
(1+12%)
management fee
(except Cheltenham)

Whlsl COS= 34,679,000 minus 2,227,034 32,451,966 93.6%

- (a) The PWD recovers the direct costs for sodium hypochlorite for odor control of Bucks County wastewater directly from Bucks County based on actual expenses incurred. Therefore, remove this cost from the lump sum charge and note on the schedule of contract customer charges that those costs are recovered directly from Bucks County.
- (b) The volume charge revenue includes charges for flows through the City Line and Presidential Drive connection.
- (c) The capacity charge revenue includes charges for flows through the City Line and Presidential Drive connection.

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
PLANTOM - Unit Net O&M Costs by Plant		P.N. 135647.0100		February 11, 2018 9:00 a.m.						
Line No.		(1)	(2)	(3)	(4)	(5)	(6)			
	Total Net Operating Expense \$1,000	Projected Test Year Units of Service	Unit Operating Expense \$/unit	Contract Volume Units Incl. I/I Mcf	Customer Total Volume Units Excl. I/I Mcf	Adjusted Unit Operating Expense \$/unit	((3)*(4)) / (5)			
PUMPING STATIONS										
Neill Drive Pumping Station										
Retail and Lower Merion										
1	Total Volume	54	69,650	Mcf	0.7753	364,900	350,000	0.8083		
2	Total Capacity	175	370	Mcf/day	474.0541	2,788	2,728	484.4805		
Central Schuylkill Pumping Station										
Retail and Springfield (excl. Wyndmoor)										
3	Total Volume	691	2,715,700	Mcf	0.2544	152,200	150,000	0.2581		
4	Total Capacity	407	22,110	Mcf/day	18.4080	407	397	18.8717		
WATER POLLUTION CONTROL PLANTS										
Northeast Plant:										
Retail and Cheltenham										
5	Volume	0	NA	Mcf	0.0000	340,000	325,000	0.0000		
6	Capacity	0	NA	Mcf/day	0.0000	2,803	2,743	0.0000		
Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton										
7	Volume	587	5,597,000	Mcf	0.1049	1,438,500	1,383,000	0.1091		
8	Capacity	2,334	35,180	Mcf/day	66.3445	10,346	10,126	67.7859		
Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton										
9	Volume	12,147	7,564,000	Mcf	1.6059	1,778,500	1,708,000	1.6722		
10	Capacity	3,708	47,544	Mcf/day	77.9909	13,149	12,869	79.6878		
11	Suspended Solids	18,610	87,641	1,000 lbs	212.3435	20,073	19,633	217.1024		
12	BOD	16,638	67,015	1,000 lbs	248.2728	19,035	18,925	249.7159		
Southwest Plant:										
Retail										
13	Volume	75	NA	Mcf	0.0000	NA	NA			
14	Capacity	467	NA	Mcf/day	0.0000	NA	NA			
Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby										
15	Volume	12,318	7,807,000	Mcf	1.5778	993,700	960,000	1.6332		
16	Capacity	4,163	49,071	Mcf/day	84.8363	6,289	6,149	86.7678		
17	Suspended Solids	15,221	80,781	1,000 lbs	188.4205	10,095	9,884	192.4428		
18	BOD	11,003	57,721	1,000 lbs	190.6239	8,847	8,795	191.7510		
Southeast Plant:										
Retail and Springfield (Wyndmoor)										
19	Volume	8,412	3,757,000	Mcf	2.2390	19,900	19,000	2.3451		
20	Capacity	4,460	23,614	Mcf/day	188.8710	167	167	188.8710		
21	Suspended Solids	9,330	33,986	1,000 lbs	274.5248	166	160	284.8195		
22	BOD	3,255	26,171	1,000 lbs	124.3743	125	124	125.3773		

SCOS17_19.XLS
SERVCHG

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SERVIndex - Index	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Servchg-1

The "Servchg" worksheet develops the cost of service monthly service charge for 5/8 inch meters.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
SERVIndex	Index	Servchg-1	
SRVCHG	Service Charge Design	Servchg-2	
ADJRTLCO	Adjusted Retail COS Unit Costs	Servchg-3	
ADJCOSSUM	Summary of Adjusted COS Service Charges	Servchg-4	TABLE WW - 16
EQMBR	Equivalent Meter & Bill Ratios	Servchg-5	

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a				
SRVCHG - Service Charge Design		P.N. 135647.0100		February 11, 2018 9:00 a.m.		Servchg-2								
Customer Costs														
Units	Collection System Stormwater Costs Eq. Meters	Meter Costs Eq. Meters	Billing Costs		Industrial Waste Costs Eq. Meters	Stormwater Infiltration/ Inflow Costs Eq. Meters	Sanitary Infiltration/ Inflow Costs Eq. Meters	Stormwater Direct Programs Eq. Meters	Warranty Costs Eq. Service	Total Cost	Reference	Sanitary	Stormwater	Total
			Sanitary Eq. Bills	Stormwater Bills										
5/8 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		Servchg-3			
Units		1.0	1.0		1.0		1.0		1.0		Servchg-3			
Total Cost - \$		0.6829	3.1498		0.4925		2.5482		0.0000	6.8734		6.8734	0.0000	6.8734
3/4 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		1.5	1.00		1.5		1.5		1.0		Servchg-3			
Total Cost - \$		1.0244	3.1498		0.7388		3.8223		0.0000	8.7353		8.7353	0.0000	8.7353
1 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		2.5	1.1		2.5		2.5		1.1		Servchg-3			
Total Cost - \$		1.7073	3.4648		1.2313		6.3705		0.0000	12.7739		12.7739	0.0000	12.7739
1-1/4 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		3.8	1.2		3.8		3.8		1.2		Servchg-3			
Total Cost - \$		2.5950	3.7798		1.8715		9.6832		0.0000	17.9295		17.9295	0.0000	17.9295
1-1/2 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		5.0	1.2		5.0		5.0		1.2		Servchg-3			
Total Cost - \$		3.4145	3.7798		2.4625		12.7410		0.0000	22.3978		22.3978	0.0000	22.3978
2 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		8.0	1.5		8.0		8.0		2.1		Servchg-3			
Total Cost - \$		5.4632	4.7247		3.9400		20.3856		0.0000	34.5135		34.5135	0.0000	34.5135
3 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		15.0	2.0		15.0		15.0		0.0		Servchg-3			
Total Cost - \$		10.2435	6.2996		7.3875		38.2230		0.0000	62.1536		62.1536	0.0000	62.1536
4 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		25.0	4.0		25.0		25.0		0.0		Servchg-3			
Total Cost - \$		17.0725	12.5992		12.3125		63.7050		0.0000	105.6892		105.6892	0.0000	105.6892
6 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		50.0	7.0		50.0		50.0		0.0		Servchg-3			
Total Cost - \$		34.1450	22.0486		24.6250		127.4100		0.0000	208.2286		208.2286	0.0000	208.2286
8 Inch Meter														
Unit Costs - \$/unit		0.6829	3.1498		0.4925		2.5482		0.0000		above			
Units		80.0	10.0		80.0		80.0		0.0		Servchg-3			
Total Cost - \$		54.6320	31.4980		39.4000		203.8560		0.0000	329.3860		329.3860	0.0000	329.3860

10 Inch Meter										
Unit Costs - \$/unit	0.6829	3.1498	0.4925	2.5482	0.0000		above			
Units	115.0	15.0	115.0	115.0	0.0		Servchg-3			
Total Cost - \$	78.5335	47.2470	56.6375	293.0430	0.0000	475.4610		475.4610	0.0000	475.4610
12 Inch Meter										
Unit Costs - \$/unit	0.6829	3.1498	0.4925	2.5482	0.0000		above			
Units	215.0	20.0	215.0	215.0	0.0		Servchg-3			
Total Cost - \$	146.8235	62.9960	105.8875	547.8630	0.0000	863.5700		863.5700	0.0000	863.5700
14 Inch Meter										
Unit Costs - \$/unit	0.6829	3.1498	0.4925	2.5482	0.0000		above			
Units	225.0	23.0	225.0	225.0	0.0		Servchg-3			
Total Cost - \$	153.6525	72.4454	110.8125	573.3450	0.0000	910.2554		910.2554	0.0000	910.2554

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ADJRTLCOS - Adjusted Retail COS Unit Costs	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Servchg-3

Rate Design - Retail COS Unit Costs Adjusted to Subsidize Discount Customers and to Reflect Conversion to Billing Units from Wastewater Units

Line No.	Cost Component	Units	(1)	(2)	Adjusted Unit Cost \$/unit	Ratedsn-5
Collection System						
Pumping Station						
1	Volume	Mcf	0.1943	/Mcf		
2	Capacity	Mcf/day	226.5616	/year =	\$18.8801	/month
3	Sanitary Sewers	Mcf/day	286.7281	/year =	\$23.8940	/month
4	Storm Costs Related to Equivalent Meters					
WPC Plants						
5	Volume	Mcf	2.3410	/Mcf		
6	Capacity	Mcf/day	213.9627	/year =	\$17.8302	/month
7	Suspended Solids	1,000 lbs	277.8330	/1,000 lbs		
8	BOD	1,000 lbs	283.8622	/1,000 lbs		
Customer Costs						
9	Meter Costs	Eq Meters	8.1945	/year =	\$0.6829	/month
Billing Costs						
10	Sanitary	Eq Bills	3.1498	/monthly bill		
11	Industrial Waste Unit - Retail	Eq Meters	5.9104	/year =	\$0.4925	/month
12	Warranty Program	Eq Service	0.0000	/year =	\$0.0000	/month
13	Infiltration/Inflow - Sanitary	Eq Meters	30.5779	/year =	\$2.5482	/month

Test Year Equivalent Bills and Equivalent Meters Factors

	5/8" Meter	3/4" Meter	1" Meter	1-1/4" Meter	1-1/2" Meter	2" Meter	3" Meter	4" Meter	6" Meter	8" Meter	10" Meter	12" Meter	14" Meter
Equivalent Bills Factors	1.0	1.0	1.1	1.2	1.2	1.5	2.0	4.0	7.0	10.0	15.0	20.0	23.0
Equivalent Meters Factors	1.0	1.5	2.5	3.8	5.0	8.0	15.0	25.0	50.0	80.0	115.0	215.0	225.0
Equivalent Service Factors	1.0	1.0	1.1	1.2	1.2	2.1	10.0	12.0	15.0	19.0	25.0	28.0	45.0
Equivalent Bills Factors - Parcel Based	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ADJCOSSUM - Summary of Adjusted COS Service Char P.N. 135647.0100		February 11, 2018 9:00 a.m.					Servchg-4

Meter Size inches	Calculated Service Charge \$	Rounded Service Charge \$	Lag Factor @ 104.86% \$
5/8	6.87	6.87	7.20
3/4	8.74	8.74	9.16
1	12.77	12.77	13.39
1-1/4	17.93	17.93	18.80
1-1/2	22.40	22.40	23.49
2	34.51	34.51	36.19
3	62.15	62.15	65.17
4	105.69	105.69	110.83
6	208.23	208.23	218.35
8	329.39	329.39	345.40
10	475.46	475.46	498.57
12	863.57	863.57	905.54
14	910.26	910.26	954.50

TABLE WW - 16

DEVELOPMENT OF COST OF SERVICE MONTHLY SERVICE CHARGE FOR CUSTOMERS WITH 5/8-INCH METERS

Test Year 2019

Line No.	Cost Component	(1) Units	(2) Unit Costs \$/Unit Servchg-2	(3) Number of Units Servchg-2	(4) Total Cost \$ (2) * (3)
	Customer Costs				
1	Meter Costs	Eq. Meter	0.6829	1.0	0.6829
2	Billing Costs	Eq. Bills	3.1498	1.0	3.1498
3	Industrial Waste Unit	Eq. Meter	0.4925	1.0	0.4925
	Warranty Program	Eq. Service	0.0000	1.0	0.0000
4	I/I Costs - Sanitary Costs	Eq. Meter	2.5482	1.0	2.5482
5	Total Service Charge				6.8734
6	Total Service Charge - Rounded				6.87

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
EQMBR - Equivalent Meter & Bill Ratios	P.N. 135647.0100	February 11, 2018 9:00 a.m.					Servchg-5

TABLE 19

EQUIVALENT METER AND BILL RATIOS

Meter Size inches	Equiv. Meter and Capacity Ratio Servchg-3	Equivalent Bill Ratio Servchg-3	Equiv. Meter and Service Ratio Servchg-3
5/8	1.0	1.0	1.0
3/4	1.0	1.5	1.0
1	1.1	2.5	1.1
1-1/4	1.2	3.8	1.2
1-1/2	1.2	5.0	1.2
2	1.5	8.0	2.1
3	2.0	15.0	10.0
4	4.0	25.0	12.0
6	7.0	50.0	15.0
8	10.0	80.0	19.0
10	15.0	115.0	25.0
12	20.0	215.0	28.0
14	23.0	225.0	45.0

SCOS17_19.XLS

LAGRATE

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
LAGIndex - Index	P.N. 135647.0100	February 11, 2018 1:49 p.m.					LAGRate-1

The "LagRate" worksheet refines cost of service rates to recognize billing lag and rate implementation refinements and develops proposed Sewer utility rates for the test year and two following years.

Range	Description	Page Number	Table
LAGIndex	Index	LagRate-1	
COSRates	Existing and COS Rates	LagRate-2	
BILLCONS	Projected Accounts, Bills and Consumption	LagRate-3	
PBILLRates	Projected Gross Billings Under Existing Rates	LagRate-4	
BILLMETER	Historical Accounts by Meter Size & Billed Volume	LagRate-5	
BILLMETER	FY 2019 Bills by Meter Size & Billed Volume	LagRate-6	
EBILLS	Historical Billings Under Existing Rates	LagRate-7	
BILLTABFTRFY	2019 Bill Tab Adjustment Factors	LagRate-7a	
EUNITCHRG	Unit Charges Under Existing Rates	LagRate-8	
PBILLS	Billings Under COS Rates	LagRate-9	
PUNITCHRG	Unit Charges Under COS Rates	LagRate-10	
PBILLSRates	Projected Billings Under COS Rates	LagRate-11	
PBILLSUM	Summary of Projected Billings Under COS Rates	LagRate-12	
RECPTS	Calculation of Receipts (Under Proposed Rates) Reflecting Lag	LagRate-13	
TYRECPTS	Test Year Receipts with Lag	LagRate-14	
ADJCOS	Modified COS Rates to Account for Lag	LagRate-15	
CTRCTUnits	Contract Service Customers Billing Units	LagRate-16	
WHLCHRG	Summary of Existing Charges for Wholesale Contract Customers	LagRate-17	TABLE WH - 30
PRATES	Proposed Contract Rates and Percent Incr. Over Existing Rates	LagRate-18	
CTRCTANAL	Contract Serv. Proposed Rates Receipts Analysis - Part 1	LagRate-19	
CTRCTANAL	Contract Serv. Proposed Rates Receipts Analysis - Part 2	LagRate-19a	
COSCLASS	COS & Adjusted COS by Class	LagRate-20	TABLE WW - 14 (Columns (4) to (8))
CTRCTACOS	Contract Customers Allocated Cost of Service	LagRate-21	
EREVCOM	Comparison of Revenue Under Existing Rates to COS	LagRate-22	
CTRCTREVC	Comparison of Contract Revenues Under Existing Rates and Adjusted Rates	LagRate-23	
TYCSTSERV	Test Year Cost of Service	LagRate-24	
PRATESGS	Proposed Wastewater Rates for General Service	LagRate-25	
TYPBILLS	Typical Bills for Water and Wastewater	LagRate-26	
XXXXXX	PAGE NOT IN USE	LagRate-27	
XXXXXX	PAGE NOT IN USE	LagRate-28	
XXXXXX	PAGE NOT IN USE	LagRate-29	
XXXXXX	PAGE NOT IN USE	LagRate-30	
PHRATESTA	Four Years of Phased Rates (No trending)	LagRate-31	
PHASE1BILL	Transition Phase 1 Typical Bills	LagRate-32	
PHASE2BILL	Transition Phase 2 Typical Bills	LagRate-33	
PHASE3BILL	Transition Phase 3 Typical Bills	LagRate-34	
CHRGCMP1	Comparison 1 of Typical Bills	LagRate-35	
CHRGCMP2	Comparison 2 of Typical Bills	LagRate-36	Table C-4
PROPRCPTS	Page 1 of FY 2019 Proposed Receipts Calcs	LagRate-37	
PROPRCPTS	Page 2 of FY 2019 Proposed Receipts Calcs	LagRate-38	
XXXXXX	PAGE NOT IN USE	LagRate-39	
SSEVCHGS	2019 Components of Sewer Service Charges	LagRate-40	
XXXXXX	PAGE NOT IN USE	LagRate-41	
XXXXXX	PAGE NOT IN USE	LagRate-42	
SSEVCHGS	Summary of Components of Regular Sewer Service Charges	LagRate-43	
SSEVCHGS	Summary of Components of Discount Sewer Service Charges	LagRate-44	

OPTION: 0 COS

TEST YEAR COS RATES
TEST YEAR 2019
(Prior to Application of Lag Factor Adjustment)

EXISTING RATES

TEST YEAR (TY)
FY 2019
Effective July 1, 2017

TY - 1
FY 2018
Effective July 1, 2017

TY - 2
FY 2017
Effective July 1, 2017

Meter Size		General Service	Discount Service	Meter Size		General Service	Discount Service	Meter Size		General Service	Discount Service		
inches	Code	Charge S/Bill	Charge (a) S/Bill	inches	Code	Charge S/Bill	Charge (a) S/Bill	inches	Code	Charge S/Bill	Charge (a) S/Bill		
15.11	5/8	R	6.87	5.15	5/8	R	7.41	5.56	5/8	R	7.41	5.56	
37.91	3/4	Z	8.74	6.56	3/4	Z	9.08	6.81	3/4	Z	9.08	6.81	
61.18	1	Q	12.77	9.58	1	Q	12.84	9.63	1	Q	12.84	9.63	
89.77	1-1/4	Y	17.93	13.45	1-1/4	Y	17.61	13.21	1-1/4	Y	17.61	13.21	
118.37	1-1/2	P	22.40	16.80	1-1/2	P	21.63	16.22	1-1/2	P	21.63	16.22	
188.19	2	X	34.51	25.88	2	X	32.90	24.68	2	X	32.90	24.68	
350.10	3	O	62.15	46.61	3	O	58.40	43.80	3	O	58.40	43.80	
585.83	4	W	105.69	79.27	4	W	100.05	75.04	4	W	100.05	75.04	
1,166.66	6	N	208.23	156.17	6	N	196.03	147.02	6	N	196.03	147.02	
1,862.86	8	V	329.39	247.04	8	V	308.78	231.59	8	V	308.78	231.59	
2,679.42	10	E	475.46	356.60	10	E	446.41	334.81	10	E	446.41	334.81	
4,977.74	12	T	863.57	647.68	12	T	801.99	601.49	12	T	801.99	601.49	
5,217.47	14	H	910.26	682.70	14	H		0.00	14	H		0.00	
<u>Monthly Water Usage</u>					<u>Monthly Water Usage</u>					<u>Monthly Water Usage</u>			
		Charge Per Mcf	Charge Per Mcf			Charge S/Mcf				Charge S/Mcf			
		Ratesdn-4	Ratesdn-2										
General Service Volume Charge		30.29	22.72	General Service Volume Charge		32.46		General Service Volume Charge		32.46	30.55		
Discount Volume Charge (a)				Discount Volume Charge (a)		24.35		Discount Volume Charge (a)		24.35	22.91		
Groundwater Volume Charge			13.53	Groundwater Volume Charge		11.93		Groundwater Volume Charge		11.93	11.31		
<u>Wastewater Surcharge</u>					<u>Wastewater Surcharge</u>					<u>Wastewater Surcharge</u>			
		Charge S/lb				Charge S/lb				Charge S/lb			
		Ratesdn-7											
BOD in excess of 250 mg/l			0.388	BOD in excess of 250 mg/l		0.372		BOD in excess of 250 mg/l		0.372	0.350		
SS in excess of 350 mg/l			0.380	SS in excess of 350 mg/l		0.393		SS in excess of 350 mg/l		0.393	0.332		

(a) Universities, Colleges, Hospitals, Charities, Board of Education and Senior Citizens are billed at 75% of regular rates.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
BLLCONS - Projected Accounts, Bills and Consumption	P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.					LagRate.3
References: Financial Planning Model (Customer)							
Water & Sewer and Water Only Data No Longer Required							

PROJECTED WASTEWATER BILLINGS UNDER EXISTING RATES

W&S Accounts	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Test Year 2019
	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	Volume Mcf	
Residential (excluding Senior Citizens)	3,206,646	3,132,996	3,243,246	3,193,944	3,144,643	3,095,341	3,046,039	3,000,846	2,955,653	2,910,460	3,144,643
Commercial	1,512,234	1,499,726	1,507,824	1,502,194	1,496,564	1,491,215	1,485,866	1,480,518	1,475,450	1,470,383	1,496,564
Industrial	84,756	90,445	86,790	86,684	86,584	86,483	86,383	86,288	86,193	86,098	86,584
Public Utilities	10,711	10,983	10,829	10,821	10,813	10,805	10,796	10,789	10,781	10,773	10,813
Senior Citizens	115,882	117,695	119,689	117,551	115,413	113,488	111,563	109,639	107,714	105,790	115,413
Housing Authority	178,292	163,177	166,154	166,154	166,154	166,154	166,154	166,154	166,154	166,154	166,154
Charities & Schools	190,766	178,962	188,237	188,237	188,237	188,237	188,237	188,237	188,237	188,237	188,237
Hospital/University	272,722	300,812	290,832	290,832	290,832	290,832	290,832	290,832	290,832	290,832	290,832
Hand Billed	497,646	445,530	426,711	426,711	426,711	426,711	426,711	426,711	426,711	426,711	426,711
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Fire Meters	2,665	6,393	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Scheduled (Flat Rate)	21	16	24	24	24	24	24	24	24	24	24
yyyyyyyyyy	0	0	0	0	0	0	0	0	0	0	0
Sewer Only	70,303	83,596	77,000	77,000	77,000	77,000	77,000	77,000	77,000	77,000	77,000
Ground Water	276,587	211,684	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000
Total	6,419,231	6,242,015	6,331,836	6,274,652	6,217,473	6,160,790	6,104,107	6,051,537	5,999,250	5,946,962	6,217,473

W&S Accounts	Billings \$	Billings \$	Billings \$	Billings \$	Billings \$	Billings \$	Billings \$	Billings \$	Billings \$	Billings \$	Test Year 2019
	Residential (excluding Senior Citizens)	122,216,147	121,098,997	135,023,404	140,924,046	139,577,899	137,977,568	136,377,237	134,910,267	133,443,296	
Commercial	46,970,850	46,800,206	51,001,112	51,941,409	51,878,202	51,704,584	51,530,965	51,357,347	51,183,728	51,010,109	51,878,202
Industrial	2,567,764	2,733,255	2,852,100	3,025,657	3,029,299	3,026,043	3,022,786	3,019,701	3,016,616	3,013,531	3,029,299
Public Utilities	343,996	356,335	381,253	404,341	404,938	404,673	404,408	404,159	403,909	403,660	404,938
Senior Citizens	3,622,261	3,737,617	4,112,197	4,280,018	4,234,975	4,188,122	4,141,268	4,094,415	4,047,561	4,000,708	4,234,975
Housing Authority	5,267,694	4,864,909	5,365,449	5,691,129	5,703,691	5,703,691	5,703,691	5,703,691	5,703,691	5,703,691	5,703,691
Charities & Schools	4,601,072	4,345,660	4,919,103	5,220,787	5,232,022	5,232,022	5,232,022	5,232,022	5,232,022	5,232,022	5,232,022
Hospital/University	5,993,547	6,593,824	6,924,557	7,360,133	7,377,492	7,377,492	7,377,492	7,377,492	7,377,492	7,377,492	7,377,492
Hand Bill	14,154,098	12,725,650	13,226,631	14,063,231	14,097,189	14,097,189	14,097,189	14,097,189	14,097,189	14,097,189	14,097,189
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Fire Meters	74,601	179,452	137,010	145,712	146,070	146,070	146,070	146,070	146,070	146,070	146,070
Scheduled (Flat Rate)	737	685	989	1,044	1,046	1,046	1,046	1,046	1,046	1,046	1,046
yyyyyyyyyy	0	0	0	0	0	0	0	0	0	0	0
Sewer Only	1,989,228	2,371,428	2,371,123	2,521,254	2,527,382	2,527,382	2,527,382	2,527,382	2,527,382	2,527,382	2,527,382
Ground Water Charges	2,968,814	2,277,720	2,370,288	2,499,875	2,505,300	2,505,300	2,505,300	2,505,300	2,505,300	2,505,300	2,505,300
Total	210,770,808	208,089,737	228,685,216	240,078,634	238,715,504	236,891,180	235,066,855	233,376,079	231,694,440	230,012,801	238,715,504

	TY-2 2017	TY-1 2018	TY 2019
Test Year 2019 Total Billings	228,685,216	240,078,634	\$238,715,504
Test Year 2019 Total Volume Charge			\$232,726,393
Test Year 2019 Total less yyyyyyyyyy Fire Volume Charge			\$232,357,928
Test Year 2019 yyyyyyyyyy & Fire Volume Charge			\$368,464
Test Year 2019 Total Service Charge			\$5,989,111
Test Year 2019 Total less yyyyyyyyyy Service Charge			\$5,989,111
Test Year 2019 yyyyyyyyyy Service Charge			\$0

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 BILLMETER - Historical Accounts by Meter Size & Billed Volume P.N. 135647.0100 February 11, 2018 9: February 11, 2018 9:39 a.m. LagRate-5

Reference: Financial Planning Model (Blab) Customer - Wastewater Billed Volume Year 2016

Meter Size inches	Meter Code	Residential		Commercial		Industrial		Public Utilities		Senior Citizens		Housing Authority		Charity and Schools		Hospital/University	
		Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf
5/8	R	409,586		28,046		524		48		21,365		5,454		1,187		41	
3/4	Z	62		12		0		0		0		0		0		0	
1	Q	3,281		2,754		245		28		2		18		314		34	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	649		1,166		80		11		1		41		148		16	
2	X	524		1,726		112		22		0		31		240		63	
3	O	143		668		50		14		0		38		218		103	
4	W	46		354		13		6		0		19		281		110	
6	N	12		127		8		4		0		12		33		50	
8	V	3		32		0		2		0		6		3		7	
10	E	0		16		0		0		0		0		0		2	
12	T	0		0		0		0		0		0		0		0	
14	H																
		414,306	3,132,996	34,901	1,499,726	1,032	90,445	135	10,983	21,368	117,695	5,619	163,177	2,424	178,962	426	300,812

Sewer Only Customers																	
Meter Size inches	Meter Code	Hand Bill		xxxxxxx		Fire Meters		Scheduled (Flat Rate)		yyyyyyyy		Sewer Only		Ground Water		Total	
		Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Annual Number of Accounts	Annual Consumption Mcf	Sewer Only Accounts	Consumption Mcf	Sewer Only Accounts	Consumption Mcf	Sewer Only Accounts	Consumption Mcf
5/8	R	10		0		50		3		0		57				57	
3/4	Z	0		0		0		0		0		1				1	
1	Q	13		0		6		0		0		2				2	
1-1/4	Y	0		0		0		0		0		0				0	
1-1/2	P	10		0		4		0		0		0				0	
2	X	36		0		10		0		0		9				9	
3	O	70		0		1		0		0		2				2	
4	W	71		0		4		0		0		2				2	
6	N	23		0		2		0		0		1				1	
8	V	6		0		0		0		0		2				2	
10	E	3		0		0		0		0		1				1	
12	T	0		0		0		0		0		0				0	
14	H																
		242	445,530	0	0	77	6,393	3	16	0	0	77	83,596	0	211,684	77	295,280

NOTE: Excludes Water Only Customers and Wastewater Only Customers

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 BILLMETER1 - FY 2019 Bills by Meter Size & Billed Volume P.N. 135647.0100 February 11, 2018 9: February 11, 2018 9:39 a.m. LagRate-6

Meter Size inches	Meter Code	Residential		Commercial		Industrial		Public Utilities		Senior Citizens		Housing Authority		Charity and Schools		"6 Cent" Charities	
		Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf
5/8	R	4,915,032		336,552		6,288		576		256,380		65,448		14,244		492	
3/4	Z	744		144		0		0		0		0		0		0	
1	Q	39,372		33,048		2,940		336		24		216		3,768		408	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	7,788		13,992		960		132		12		492		1,776		192	
2	X	6,288		20,712		1,344		264		0		372		2,880		756	
3	O	1,716		8,016		600		168		0		456		2,616		1,236	
4	W	552		4,248		156		72		0		228		3,372		1,320	
6	N	144		1,524		96		48		0		144		396		600	
8	V	36		384		0		24		0		72		36		84	
10	E	0		192		0		0		0		0		0		24	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>		<u>LagRate-11</u>		<u>LagRate-11</u>		<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>	<u>LagRate-4</u>
		4,971,672	3,144,643	418,812	1,496,564	12,384	86,584	1,620	10,813	256,416	115,413	67,428	166,154	29,088	188,237	5,112	290,832

Meter Size inches	Meter Code	Hand Bill		xxxxxxx		Fire Meters		Scheduled (Flat Rate)		yyyyyyyyy		Sewer Only		Ground Water		Total	
		Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf	Annual Number of Bills	Annual Consumption Mcf
5/8	R	120		0		600		36		0		684		0		684	
3/4	Z	0		0		0		0		0		12		0		12	
1	Q	156		0		72		0		0		24		0		24	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	120		0		48		0		0		0		0		0	
2	X	432		0		120		0		0		108		0		108	
3	O	840		0		12		0		0		24		0		24	
4	W	852		0		48		0		0		24		0		24	
6	N	276		0		24		0		0		12		0		12	
8	V	72		0		0		0		0		24		0		24	
10	E	36		0		0		0		0		12		0		12	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		<u>LagRate-11</u>		<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>		<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>	<u>LagRate-4</u>	<u>LagRate-11</u>			
		2,904	426,711	0	0	924	4,500	36	24	0	0	924	77,000	0	210,000	924	287,000

NOTE: Excludes Water Only Customers and Wastewater Only Customers

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
EBILS - Historical Billings Under Existing Rates	P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.					LagRate-7

This page is using billing data and sewer only data from Financial Planning Model - Customer worksheet

Meter Size inches	Meter Code	Residential		Commercial		Industrial		Public Utilities		Senior Citizens (b)		Housing Authority (b)		"N" Charities (b)		"6 Cent" Charities (b)	
		Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$
		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2	
5/8	R	3,035,032		207,821		3,883		356		118,789		38,393		6,600			228
3/4	Z	563		109		0		0		0		0		0			0
1	Q	42,128		35,361		3,146		360		19		220		3,024			327
1-1/4	Y	0		0		0		0		0		0		0			0
1-1/2	P	14,038		25,221		1,730		238		16		842		2,401			260
2	X	17,240		56,786		3,685		724		0		969		5,923			1,555
3	O	8,351		39,011		2,920		818		0		2,108		9,548			4,511
4	W	4,602		35,418		1,301		600		0		1,806		21,086			8,254
6	N	2,352		24,896		1,568		784		0		2,235		4,852			7,351
8	V	926		9,881		0		618		0		1,760		695			1,621
10	E	0		7,143		0		0		0		0		0			670
12	T	0		0		0		0		0		0		0			0
14	H	0		0		0		0		0		0		0			0
		3,125,232	101,697,050	441,646	48,681,112	18,233	2,935,845	4,497	356,508	118,825	2,865,871	48,333	5,031,889	54,128	4,357,725	24,777	7,324,772

Meter Size inches	Meter Code	Hand Bill		xxxxxxx		Fire Meters (b)		Scheduled (Flat Rate) (b)		yyyyyyyyy		Sewer Only Ground Water		Total Sewer Only			
		Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$		
		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-5 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2			
5/8	R	74	0	0	0	371	22	0	0	0	0						
3/4	Z	0	0	0	0	0	0	0	0	0	0						
1	Q	167	0	0	0	77	0	0	0	0	0						
1-1/4	Y	0	0	0	0	0	0	0	0	0	0						
1-1/2	P	216	0	0	0	87	0	0	0	0	0						
2	X	1,184	0	0	0	329	0	0	0	0	0						
3	O	4,088	0	0	0	58	0	0	0	0	0						
4	W	7,104	0	0	0	400	0	0	0	0	0						
6	N	4,509	0	0	0	392	0	0	0	0	0						
8	V	1,853	0	0	0	0	0	0	0	0	0						
10	E	1,339	0	0	0	0	0	0	0	0	0						
12	T	0	0	0	0	0	0	0	0	0	0						
14	H	0	0	0	0	0	0	0	0	0	0						
		20,534	14,461,904	0	0	1,714	207,517	22	519	0	0	0	2,713,526	0	2,525,390	0	9,584,789

(a) Excludes Senior Citizens
 (b) Excludes Water Only and Wastewater Only.

This page is using 2018 projected billing data times existing rates.

		Residential		Commercial		Industrial		Public Utilities		Senior Citizens (b)		Housing Authority (b)		"N" Charities (b)		"6 Cent" Charities (b)	
Meter Size	Meter Code	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$
5/8	R	36,420,386	LagRate-6 x LagRate-2	2,493,850	LagRate-6 x LagRate-2	46,594	LagRate-6 x LagRate-2	4,268	LagRate-6 x LagRate-2	1,425,473	LagRate-6 x LagRate-2	460,721	LagRate-6 x LagRate-2	79,197	LagRate-6 x LagRate-2	2,736	LagRate-6 x LagRate-2
3/4	Z	6,756		1,308		0		0		0		0		0		0	
1	Q	505,538		424,336		37,750		4,314		231		2,635		36,286		3,929	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	168,455		302,647		20,765		2,855		195		10,110		28,807		3,114	
2	X	206,876		681,425		44,218		8,686		0		11,627		71,078		18,658	
3	O	100,215		468,134		35,040		9,811		0		25,299		114,581		54,137	
4	W	55,228		425,012		15,608		7,204		0		21,671		253,035		99,053	
6	N	28,228		298,750		18,819		9,409		0		26,817		58,220		88,212	
8	V	11,116		118,572		0		7,411		0		21,121		8,337		19,454	
10	E	0		85,711		0		0		0		0		0		8,035	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		37,502,797	102,075,103	5,299,745	48,578,458	218,793	2,810,506	53,958	350,980	1,425,899	2,810,294	580,000	5,123,691	649,540	4,583,571	297,327	7,081,759

		Hand Bill	xxxxxxx	Fire Meters (b)	Scheduled (Flat Rate) (b)	yyyyyyyyy	Sewer Only	Sewer Only	Total Sewer Only
Meter Size	Meter Code	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$	Service Charge Billings \$	Volume Charge Billings \$
5/8	R	889	LagRate-6 x LagRate-2	0	LagRate-6 x LagRate-2	267	LagRate-6 x LagRate-2	0	LagRate-6 x LagRate-2
3/4	Z	0		0		0		0	
1	Q	2,003		0		0		0	
1-1/4	Y	0		Volume charge only		0		Volume charge only	
1-1/2	P	2,596		0		0		0	
2	X	14,213		0		0		0	
3	O	49,056		0		0		0	
4	W	85,243		0		0		0	
6	N	54,104		0		0		0	
8	V	22,232		0		0		0	
10	E	16,071		0		0		0	
12	T	0		0		0		0	
14	H	0		0		0		0	
		246,406	13,851,039	0	146,070	267	779	0	9,316,020

Bill Tab Correction Factors Based on Billings Under Existing Rates

	(1)	(2)	(3)	(4)	(5)
	FY 2019 Calculated Billings		FY 2019 Projected Billings from Fin Plan		Bill Tab Adjustment Factors
	Amount \$	Unit Billings \$/Mcf	Amount \$	Unit Billings \$/Mcf	(4)/(2)
Residential (excluding Senior Citizens)	139,577,899	44.3859	139,577,899	44.3859	100.00%
Commercial	53,878,202	36.0013	53,878,202	36.0013	100.00%
Industrial	3,029,299	34.9870	3,029,299	34.9870	100.00%
Public Utilities	404,938	37.4503	404,938	37.4503	100.00%
Senior Citizens	4,236,193	36.7048	4,234,975	36.6942	99.97%
Housing Authority	5,703,691	34.3277	5,703,691	34.3277	100.00%
Charity and Schools	5,233,111	27.8007	5,232,022	27.7949	99.98%
Hospitals & Universities	7,379,087	25.3723	7,377,492	25.3668	99.98%
Charities Weighted Average	26,3799	0.0000	26,3743	0.0000	99.98%
Hand Bill	14,097,446	33.0375	14,097,189	33.0369	100.00%
xxxxxxx	0	0.0000	0	0.0000	0.00%
Fire Meters	146,070	32.4600	146,070	32.4600	100.00%
Scheduled (Flat Rate)	1,046	43.5750	1,046	43.5750	100.00%
yyyyyyyyy	0	0.0000	0	0.0000	0.00%
Sewer Only	2,499,420	32.4600	2,527,382	32.8231	101.12%
Ground Water Charges	2,505,300	11.9300	2,505,300	11.9300	100.00%
Total	238,691,702		238,715,504		100.01%

Recap of FY 2016 Billings		
Service Charges	LagRate-7	
Total	\$3,373,032	2.5%
Total less yyyyyyyyyy	\$3,373,032	2.5%
yyyyyyyyyy & Fire	\$0	0.0%
Volume Charge		
Total	\$131,070,132	97.5%
Total less yyyyyyyyyy & Fire	\$130,862,615	97.3%
yyyyyyyyyy & Fire	\$207,517	0.2%

(a) Excludes Senior Citizens
 (b) Excludes Water Only and Wastewater Only.

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)		DRAFT - For Discussion Only		Test Year		2019		Budget Yr		2017		Ver. 1a		
EUNITCHRG8 - Unit Charges Under Existing Rates		P.N. 135647.0100		February 11, 2018 9: February 11, 2018 9:39 a.m.										LagRate-8		
References:																
A. LagRate-5																
B. LagRate-6																
C. LagRate-7																
Water and Sewer Billings (Excluding Water Only)																
	Unit Volume Charge S/Mcf	Unit Service Charge S/Bill	Total Unit Charge S/Mcf	Bill Tab Adjustment Factors	Billed Volume Mcf	FY 2019 Test Year "Water and Sewer"			Total Billings \$	Consumption Percent W&S of W&S and Water Only %	Percent W&S of W&S and W Only No. of Bills		Volume Charge Billings \$	Service Charge Billings \$	Total Billings \$	FY 2019 Test Year W&S Billings Divided by W&S and W Only Billings %
						Volume Billings \$	Bills	Service Charge Billings \$			FY 2017 Test Year %	Test Year %				
Ref. C / Ref. A	Ref. C / Ref. A	Ref. C / Ref. A	Ref. C / Ref. A		LagRate-3		LagRate-3									
Residential (Excluding Senior Citizens)	32.4600	7.5433	33.4580	100.00%	3,144,643	102,075,103	4,971,672	37,502,813	139,577,916	100.00%	100.00%	102,075,103	37,502,813	139,577,916	100.00%	
Commercial	32.4600	12.6542	32.7540	100.00%	1,496,564	48,578,458	418,812	5,299,731	53,878,189	100.00%	100.00%	48,578,458	5,299,731	53,878,189	100.00%	
Industrial	32.4600	17.6674	32.6620	100.00%	86,584	2,810,506	12,384	218,793	3,029,299	100.00%	100.00%	2,810,506	218,793	3,029,299	100.00%	
Public Utilities	32.4600	33.3075	32.8690	100.00%	10,813	350,980	1,620	53,958	404,938	100.00%	100.00%	350,980	53,958	404,938	100.00%	
Senior Citizens	24.3500	5.5609	25.3600	99.97%	115,413	2,809,486	256,416	1,425,494	4,234,980	100.00%	100.00%	2,809,486	1,425,494	4,234,980	100.00%	
Housing Authority	30.8370	8.6018	31.1330	100.00%	166,154	5,123,691	67,428	580,002	5,703,693	100.00%	100.00%	5,123,691	580,002	5,703,693	100.00%	
Charities & Schools ("N" Charities)	24.3500	22.3302	24.6520	99.98%	188,237	4,582,617	29,088	649,406	5,232,022	100.00%	100.00%	4,582,617	649,406	5,232,022	100.00%	
Hospitals & Universities ("6 Cent" Charities)	24.3500	58.1627	24.4320	99.98%	290,832	7,080,228	5,112	297,263	7,377,492	100.00%	100.00%	7,080,228	297,263	7,377,492	100.00%	
Hand Bill	32.4600	84.8507	32.5060	100.00%	426,711	13,850,787	2,904	246,402	14,097,189	100.00%	100.00%	13,850,787	246,402	14,097,189	100.00%	
xxxxxxxxxx	0.0000	0.0000	0.0000	0.00%	0	0	0	0	0	100.00%	100.00%	0	0	0	NA	
Fire Meters	32.4600	22.2561	32.7280	100.00%	4,500	146,070	924	20,565	166,635	100.00%	100.00%	146,070	20,565	166,635	100.00%	
Scheduled (Flat Rate)	32.4600	7.4100	33.8490	100.00%	24	779	36	267	1,046	100.00%	100.00%	779	267	1,046	100.00%	
yyyyyyyyyy	0.0000	0.0000	0.0000	0.00%	0	0	0	0	0	100.00%	100.00%	0	0	0	NA	
Sewer Only - Ref. B	32.4600	0.0000	32.4600	101.12%	77,000	2,527,382	924	0	2,527,382	100.00%	100.00%	2,527,382	0	2,527,382	100.00%	
Ground Water - Ref. B	11.9300	0.0000	11.9300	100.00%	210,000	2,505,300	36	0	2,505,300	100.00%	100.00%	2,505,300	0	2,505,300	100.00%	
Total					6,007,473	189,936,086	5,767,320	46,294,694	236,230,780			189,936,086	46,294,694	236,230,780	100.00%	
Total less yyyyyyyyyy								46,294,694				189,936,086	46,294,694	236,230,780		
Total less yyyyyyyyyy and Fire								189,790,016				189,790,016	46,274,129	236,064,145		

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PBILLS - Billings Under COS Rates	P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.					LagRate-9

This page uses FY 2019 billing data times COS rates.
Volume charges do not reflect billing delay

Meter Size inches	Meter Code	Residential		Commercial		Industrial		Public Utilities		Senior Citizens (b)		Housing Authority (b)		"N" Charities (b)		"6 Cent" Charities (b)	
		Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2	
5/8	R	33,766,269		2,312,112		43,199		3,957		1,320,357		427,146		73,357		2,534	
3/4	Z	6,503		1,259		0		0		0		0		0		0	
1	Q	502,782		422,023		37,544		4,291		230		2,620		36,097		3,909	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	174,452		313,421		21,504		2,957		202		10,470		29,837		3,226	
2	X	216,999		714,771		46,381		9,111		0		12,196		74,534		19,565	
3	O	106,650		498,194		37,290		10,441		0		26,923		121,932		57,610	
4	W	58,341		448,971		16,488		7,610		0		22,892		267,298		104,636	
6	N	29,985		317,343		19,990		9,995		0		28,486		61,843		93,702	
8	V	11,858		126,486		0		7,905		0		22,530		8,893		20,751	
10	E	0		91,288		0		0		0		0		0		8,558	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		34,873,838	95,251,228	5,245,868	45,330,914	222,396	2,622,620	56,267	327,516	1,320,789	2,622,172	553,264	4,781,164	673,792	4,276,745	314,491	6,607,703

Meter Size inches	Meter Code	Hard Bill		xxxxxxx		Fire Meters (b)		Scheduled (Flat Rate) (b)		yyyyyyyyy		Sewer Only		Sewer Only		Total Sewer Only	
		Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2		LagRate-6 x LagRate-2	
5/8	R	824	0					247		0							
3/4	Z	0	0					0		0							
1	Q	1,072	0					0		0							
1-1/4	Y	0	0					0		0							
1-1/2	P	824	0			Volume charge only		0		0		Volume charge only		Volume charge only		Volume charge only	
2	X	2,968	0					0		0							
3	O	5,771	0					0		0							
4	W	5,853	0					0		0							
6	N	1,896	0					0		0							
8	V	495	0					0		0							
10	E	247	0					0		0							
12	T	0	0					0		0							
14	H	0	0					0		0							
		19,950	12,925,076	0	0	0	136,305	247	727	0	0	0	2,332,330	0	2,841,300	0	5,173,630

(a) Excludes Senior Citizens
(b) Excludes Water Only and Wastewater Only.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PUNITCHRGs - Unit Charges Under COS Rates	P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.					LagRate-10

References: A. LagRate-6
B. LagRate-9

	FY 2019 Billing Data Applied to COS Rates			FY 2019	Percent Change
	Unit Volume Charge \$/Mcf	Unit Service Charge \$/Bill	Total Unit Charge \$/Mcf	Units Billings Under Existing Rates \$/Mcf	
	Ref. B / Ref. A	Ref. B / Ref. A	Ref. B / Ref. A	LagRate-7a	
Residential (Excluding Senior Citizens) (a)	30.2900	7.0145	41.3800	44.3859	-6.77%
Commercial	30.2900	12.5256	33.7950	36.0013	-6.13%
Industrial	30.2900	17.9583	32.8590	34.9870	-6.08%
Public Utilities	30.2900	34.7324	35.4940	37.4503	-5.22%
Senior Citizens (a)	22.7200	5.1510	34.1640	36.7048	-6.92%
Housing Authority (a)	28.7755	8.2053	32.1050	34.3277	-6.48%
Charities & Schools (a)	22.7200	23.1639	26.2990	27.8007	-5.40%
Hospitals & University (a)	22.7200	61.5202	23.8010	25.3723	-6.19%
Hand Bill	30.2900	6.8700	30.3370	33.0375	-8.17%
xxxxxxxxx	0.0000	0.0000	0.0000	0.0000	0.00%
Fire Meters (a)	30.2900	0.0000	30.2900	32.4600	-6.69%
Scheduled (Flat Rate) (a)	30.2900	6.8700	40.8950	43.5750	-6.84%
yyyyyyyyy	0.0000	0.0000	0.0000	0.0000	0.00%
Sewer Only - Ref. B	30.2900	0.0000	30.2900	32.4600	-6.69%
Ground Water - Ref. B	13.5300	0.0000	13.5300	11.9300	13.41%

(a) Excludes Water Only and Wastewater Only; i.e., includes W&S.

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)										DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a	
PHILPRates - Projected Billings Under COS Rates		P.N. 135647.0100										February 11, 2018		9: February 11, 2018	9:39 a.m.				LagRate-11
References:																			
A. Volume multiplied by Unit Volume Charge (LagRate-10).																			
B. Bills multiplied by Unit Service Charge (LagRate-10).																			
C. Volume multiplied by Total Unit Charge (LagRate-10).																			
		Residential	Commercial	Industrial	Public Utilities	Senior Citizens	Housing Authority	Charities & Schools	Hospitals & Universities	Hand Bill	xxxxxxx	Fire Meters	Scheduled (Flat Rate)	yyyyyyyyy	Sewer Only	Groundwater	Total		
Unit Volume Charge - S/Mcf	LagRate-10	30.2900	30.2900	30.2900	30.2900	22.7200	28.7755	22.7200	22.7200	30.2900	0.0000	30.2900	30.2900	0.0000	30.2900	13.5300			
Unit Service Charge - S/Mcf	LagRate-10	7.0145	12.5256	17.9583	34.7324	5.1510	8.2053	23.1639	61.5202	6.8700	0.0000	0.0000	6.8700	0.0000	0.0000	0			
Total Unit Charge - S/Mcf	LagRate-10	41.3800	33.7950	32.8590	35.9490	34.1640	32.1050	26.2990	23.8010	30	0.0000	30.2900	40.5950	0.0000	30.2900	13.5300			
2017																			
W&S Billed Volume - Mcf	LagRate-4	3,243,246	1,507,824	86,790	10,829	119,689	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	6,331,836		
Volume Charge Billings - \$	Ref. A	98,237,921	45,671,992	2,628,857	328,010	2,719,341	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	183,487,472		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		133,111,715	50,917,864	2,851,253	384,277	4,040,140	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	226,768,345		
Alternate Total Billings - \$	Ref. C	134,205,519	50,956,915	2,851,819	384,365	4,089,065	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	227,950,637		
2018																			
W&S Billed Volume - Mcf	LagRate-4	3,193,944	1,502,194	86,684	10,821	117,551	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	6,274,652		
Volume Charge Billings - \$	Ref. A	96,744,575	45,501,453	2,625,658	327,763	2,670,756	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	181,771,556		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		131,618,368	50,747,325	2,848,050	384,030	3,991,555	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	225,052,429		
Alternate Total Billings - \$	Ref. C	132,165,418	50,766,643	2,848,350	384,075	4,016,009	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	225,643,446		
2019																			
W&S Billed Volume - Mcf	LagRate-4	3,144,643	1,496,564	86,584	10,813	115,413	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	6,217,473		
Volume Charge Billings - \$	Ref. A	95,251,228	45,330,914	2,622,620	327,516	2,622,172	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	180,055,800		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		130,125,021	50,576,786	2,845,015	383,783	3,942,971	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	223,336,674		
Alternate Total Billings - \$	Ref. C	130,125,316	50,576,370	2,845,053	383,785	3,942,953	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	223,336,429		
2020																			
W&S Billed Volume - Mcf	LagRate-4	3,095,341	1,491,215	86,483	10,805	113,488	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	6,160,790		
Volume Charge Billings - \$	Ref. A	93,757,881	45,169,903	2,619,581	327,269	2,578,446	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	178,353,430		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		128,631,675	50,414,774	2,841,977	383,535	3,899,245	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	221,634,303		
Alternate Total Billings - \$	Ref. C	128,085,214	50,395,611	2,841,757	383,496	3,877,202	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	221,046,232		
2021																			
W&S Billed Volume - Mcf	LagRate-4	3,046,039	1,485,866	86,383	10,796	111,563	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	6,104,107		
Volume Charge Billings - \$	Ref. A	92,264,535	45,006,891	2,616,542	327,022	2,534,720	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	176,651,060		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		127,138,328	50,252,762	2,838,938	383,288	3,855,519	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	219,931,933		
Alternate Total Billings - \$	Ref. C	126,045,112	50,214,852	2,838,460	383,206	3,811,451	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	218,756,034		
2022																			
W&S Billed Volume - Mcf	LagRate-4	3,000,846	1,480,518	86,288	10,789	109,639	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	6,051,537		
Volume Charge Billings - \$	Ref. A	90,895,634	44,844,879	2,613,664	326,789	2,490,994	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	175,073,309		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		125,769,427	50,090,751	2,836,059	383,056	3,811,793	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	218,354,183		
Alternate Total Billings - \$	Ref. C	124,175,019	50,034,093	2,835,337	382,933	3,745,701	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	220,155,636		
2023																			
W&S Billed Volume - Mcf	LagRate-4	2,955,653	1,475,450	86,193	10,781	107,714	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	5,999,250		
Volume Charge Billings - \$	Ref. A	89,526,732	44,691,394	2,610,785	326,556	2,447,268	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	173,504,086		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,873,793	5,245,872	222,396	56,266	1,320,799	553,267	673,792	314,491	19,950	0	0	247	0	0	0	43,280,873		
Total Billings - \$		124,400,526	49,937,266	2,833,180	382,823	3,768,067	5,334,431	4,950,536	6,922,194	12,945,027	0	136,305	974	0	2,332,330	2,841,300	216,784,959		
Alternate Total Billings - \$	Ref. C	122,304,925	49,862,848	2,832,214	382,661	3,679,950	5,334,374	4,950,445	6,922,092	12,945,132	0	136,305	974	0	2,332,330	2,841,300	214,525,551		
2024																			
W&S Billed Volume - Mcf	LagRate-4	2,910,460	1,470,383	86,098	10,773	105,790	166,154	188,237	290,832	426,711	0	4,500	24	0	77,000	210,000	5,946,962		
Volume Charge Billings - \$	Ref. A	88,157,831	44,537,909	2,607,906	326,324	2,403,542	4,781,164	4,276,745	6,607,703	12,925,076	0	136,305	727	0	2,332,330	2,841,300	171,934,863		
Bills W&S		4,971,672	418,812	12,384	1,620	256,416	67,428	29,088	5,112	2,904	0	924	36	0	924	36	5,767,356		
Service Charge Billings - \$	Ref. B	34,																	

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 RECPTS - Calculation of Receipts (Under Proposed Rates) Reflecting Lag P.N. 135647.0100 February 11, 2018 9: February 11, 2018 9:39 a.m. LagRate-13

	Proposed Increase	Months Effective	Cumulative Increase 2017 - 2024	Cumulative Increase 2020 - 2024				
REF: Financial Planning Model								
2017	0.00%	6	100.00%					
2018	0.00%	10	100.00%		185,767,000	SW	173,393,000	
2019	2.42%	12	102.42%					
2020	5.67%	10	108.23%	105.67%		Prior SS	25,916,000	
2021	5.64%	10	114.33%	111.63%		Surcharge	4,827,000	
2022	5.76%	10	120.91%	118.05%	234,123,000	SS	201,112,000	21,259,000
2023	5.73%	10	127.84%	124.82%			85.9%	9.1%
2024	0.77%	10	128.83%	125.78%				1.6%

Gross Billing Adjustment Factor: 0.0% No Billing Adjustment Factor Used in Financial Planning Model at this time.

Line No.	(1) Number of months at Existing Rate	(2) Number of months at Proposed Rate	(3) Billings (a) LagRate-8 LagRate-11 LagRate-12	(4) Cumulative Percent Increase (b)	(5) FY 2019 COS Rate Adjustment LagRate-14	(6) FY 2020 COS Rate Adjustment LagRate-14	(7) FY 2021 COS Rate Adjustment LagRate-14	(8) FY 2022 COS Rate Adjustment LagRate-14	(9) Adjusted Billings (c) \$	(10)-(13) Receipts Factor (d)				(14)-(17) Receipts			
										(10) FY 2019 %	(11) FY 2020 %	(12) FY 2021 %	(13) FY 2022 %	(14) FY 2019 \$ (6) x (7)	(15) FY 2020 \$	(16) FY 2021 \$	(17) FY 2022 \$
SANITARY SEWER CHARGES SERVICE CHARGE																	
All classes less yyyyyyyyyy																	
1	Existing Rates FY 2019	0.0	46,294,694	100.00%					0	85.90	9.08	1.56		0	0	0	
2	Adjusted COS Rates Effective July 1, 2018																
3	FY 2019	12.0	43,280,285	100.00%	104.86%			45,384,000	85.90	9.08	1.56		38,985,000	4,121,000	708,000		
4	FY 2020	10.0	43,280,285	105.67%	104.86%	105.40%		42,123,000		85.90	9.08	1.56		36,184,000	3,825,000	657,000	
5	FY 2021	10.0	43,280,285	111.63%	104.86%	105.40%	105.40%	46,900,000			85.90	9.08			40,287,000	4,259,000	
6	FY 2022	10.0	43,280,285	118.05%	104.86%	105.40%	105.40%	0				85.90				0	
yyyyyyyyyy Existing Rates FY 2019																	
6	Existing Rates FY 2019	0.0	0	100.00%				0	100.00	0.00	0.00		0				
7	Adjusted COS Rates Effective July 1, 2018																
8	FY 2019	12.0	0	100.00%	104.86%			0	100.00	0.00	0.00		0				
9	FY 2020	10.0	0	105.67%	104.86%	105.40%		0		100.00	0.00	0.00		0			
10	FY 2021	10.0	0	111.63%	104.86%	105.40%	105.40%	0			100.00	0.00			0		
10	FY 2022	10.0	0	118.05%	104.86%	105.40%	105.40%	0				100.00				0	

VOLUME CHARGE															
All classes less xxxxxxxxxx															
Existing Rates															
11	FY 2019	0.5	189,936,086	100.00%					7,914,000	85.90	9.08	1.56	6,798,000	719,000	123,000
Adjusted COS Rates Effective July 1, 2018															
12	FY 2019		179,942,280	100.00%	104.86%				(j)	85.90	9.08	1.56	155,329,000	16,419,000	2,821,000
13	FY 2020	2.5	178,239,922	105.67%	104.86%	105.40%				85.90	85.90	9.08	1.56	175,011,000	18,499,000
14	FY 2021	2.5	176,537,564	111.63%	104.86%	105.40%	105.40%				85.90	9.08	85.90	195,002,000	20,613,000
15	FY 2022	2.5	174,959,827	118.05%	104.86%	105.40%	105.40%	0.00%	47,398,000			85.90	85.90		40,715,000
xxxxxxx															
Existing Rates															
16	FY 2019	0.5	0	100.00%					0	100.00	0.00	0.00	0		
Adjusted COS Rates Effective July 1, 2018															
17	FY 2019		0	100.00%	104.86%				(j)	0	100.00	0.00	0.00	0	
18	FY 2020	2.5	0	105.67%	104.86%	105.40%				0	100.00	0.00	0.00	0	0
19	FY 2021	2.5	0	111.63%	104.86%	105.40%	105.40%			0		0.00	0.00	0	0
20	FY 2022	2.5	0	118.05%	104.86%	105.40%	105.40%	0.00%	0			100.00	100.00	0	0
SURCHARGE RATES															
Existing Rates															
21	FY 2019	0.0	5,205,000	100.00%					0	85.90	9.08	1.56	0	0	0
Adjusted COS Rates Effective July 1, 2018															
22	FY 2019 (g)	12.0	5,358,960	100.00%	104.86%					85.90	9.08	1.56	4,827,000	510,000	88,000
23	FY 2020	10.0	5,358,960	105.67%	104.86%	105.40%			5,619,000	85.90	85.90	9.08	1.56	4,481,000	474,000
24	FY 2021	10.0	5,358,960	111.63%	104.86%	105.40%	105.40%		5,216,000		85.90	9.08	85.90	4,988,000	527,000
25	FY 2022	10.0	5,358,960	118.05%	104.86%	105.40%	105.40%	0.00%	5,807,000			85.90	85.90	4,988,000	527,000
(k)															
26	FY 2017 Billings (h)		233,580,000	100.00%					(j)						
27	FY 2018 Billings (h)		245,284,000	100.00%					233,580,000	1.56	9.08	1.56	3,644,000	3,826,000	0
STORMWATER CHARGES BILLING & COLLECTION CHARGE															
Non SW Only Existing Rates															
28	FY 2019	0.0	13,515,546	100.00%					0	85.90	9.08	1.56	0	0	0
Adjusted COS Rates Effective July 1, 2018															
29	FY 2019	12.0	10,590,439	100.00%	104.86%				(j)	11,105,000	85.90	9.08	1.56	9,539,000	1,008,000
30	FY 2020	2.0	10,590,439	105.67%	104.86%	105.40%			12,158,000	85.90	85.90	9.08	1.56	10,444,000	1,104,000
31	FY 2021	2.0	10,590,439	111.63%	104.86%	105.40%	105.40%		13,649,000		85.90	9.08	85.90	11,724,000	1,239,000
32	FY 2022	2.0	10,590,439	118.05%	104.86%	105.40%	105.40%	0.00%	2,295,000			85.90	85.90	11,724,000	1,971,000
SW Only Existing Rates															
33	FY 2019	0.0	1,553,120	100.00%					0	60.38	7.69	4.01	0	0	0
Adjusted COS Rates Effective July 1, 2018															
34	FY 2019	12.0	1,214,982	100.00%	104.86%				(j)	1,274,000	60.38	7.69	4.01	769,000	98,000
35	FY 2020	2.0	1,214,982	105.67%	104.86%	105.40%			1,395,000		60.38	7.69	4.01	842,000	107,000
36	FY 2021	2.0	1,214,982	111.63%	104.86%	105.40%	105.40%		1,566,000			60.38	7.69	946,000	120,000
37	FY 2022	2.0	1,214,982	118.05%	104.86%	105.40%	105.40%	0.00%	263,000			60.38	60.38	946,000	159,000
xxxxxxx															
Existing Rates															
38	FY 2019	0.0	0	100.00%					0	100.00	0.00	0.00	0		
Adjusted COS Rates Effective July 1, 2018															
39	FY 2019	12.0	0	100.00%	104.86%				(j)	0	100.00	0.00	0.00	0	0
40	FY 2020	2.0	0	105.67%	104.86%	105.40%			0		100.00	0.00	0.00	0	0
41	FY 2021	2.0	0	111.63%	104.86%	105.40%	105.40%		0			100.00	0.00	0	0
42	FY 2022	2.0	0	118.05%	104.86%	105.40%	105.40%	0.00%	0			100.00	100.00	0	0

PARCEL AREA CHARGE																
43	Non SW Only Existing Rates FY 2019	0.5	140,327,391	100.00%					5,847,000	85.90	9.08	1.56	5,023,000	531,000	91,000	
44	Adjusted COS Rates Effective July 1, 2018								(j)							
45	FY 2019	2.5	150,781,901	100.00%	104.86%				151,522,000	85.90	9.08	1.56	130,157,000	13,758,000	2,364,000	
46	FY 2020	2.5	149,694,207	105.67%	104.86%	105.40%			171,109,000		85.90	9.08	1.56	146,983,000	15,537,000	2,669,000
47	FY 2021	2.5	148,444,178	111.63%	104.86%	105.40%	105.40%		190,885,000			85.90	9.08	163,970,000	17,332,000	
47	FY 2022	2.5	147,174,795	118.05%	104.86%	105.40%	105.40%	0.00%	39,871,000			85.90	85.90		34,249,000	
48	SW Only Existing Rates FY 2019	0.5	14,323,822	100.00%					597,000	60.38	7.69	4.01	360,000	46,000	24,000	
49	Adjusted COS Rates Effective July 1, 2018								(j)							
50	FY 2019	2.5	15,346,370	100.00%	104.86%				15,422,000	60.38	7.69	4.01	9,312,000	1,186,000	618,000	
51	FY 2020	2.5	15,134,316	105.67%	104.86%	105.40%			17,299,000		60.38	7.69	4.01	10,445,000	1,330,000	694,000
52	FY 2021	2.5	14,887,659	111.63%	104.86%	105.40%	105.40%		19,144,000			60.38	7.69	11,559,000	1,472,000	
52	FY 2022	2.5	14,633,415	118.05%	104.86%	105.40%	105.40%	0.00%	3,964,000			60.38	60.38		2,393,000	
53	xxxxxxx Existing Rates FY 2019	0.5	0	100.00%					0	100.00	0.00	0.00	0			
54	Adjusted COS Rates Effective July 1, 2018								(j)							
55	FY 2019	2.5	0	100.00%	104.86%				0	100.00	0.00	0.00	0			
56	FY 2020	2.5	0	105.67%	104.86%	105.40%			0		100.00	0.00	0.00	0		
57	FY 2021	2.5	0	111.63%	104.86%	105.40%	105.40%		0			100.00	0.00	0		
57	FY 2022	2.5	0	118.05%	104.86%	105.40%	105.40%	0.00%	0			100.00	100.00		0	
58	FY 2017 Billings - Non SW Only		150,133,769	100.00%					(i)				2,342,000			
59	FY 2018 Billings - Non SW Only		154,541,368	100.00%					150,133,769	1.56			14,032,000	2,411,000		
60	FY 2017 Billings - SW Only		15,608,430	100.00%					154,541,368	9.08	1.56					
61	FY 2018 Billings - SW Only		16,034,037	100.00%					15,608,430	4.01			626,000			
61	FY 2018 Billings - SW Only		16,034,037	100.00%					16,034,037	7.69	4.01		1,233,000	643,000		
62	Total Receipts												405,248,000	429,666,000	476,413,000	
													405,255,800	422,088,849	442,733,012	
															132,574,000	
																0

(a) Billings under Adjusted COS Rates reflect an adjustment of 0.00%.

(b) Adjusted billings under existing rates should reflect proposed increases in effect prior to the test year. Adjusted billings under COS rates should reflect proposed increases after the test year.

(c) Adjusted service charge billings are equal to the number of months effective times billings times the cumulative percent increase times the COS rate adjustment.

Test year adjusted volume charge billings are equal to the number of months effective times billings times the cumulative percent increase times the COS rate adjustment. For each year after the test year, the adjusted volume charge billing rates time the previous year's billings times the previous year's cumulative percent increase plus the number of months at COS rates times billings times the cumulative percent increase times the COS rate adjustment.

Adjusted billings for FY 2017 and FY 2018 are equal to the billings times the cumulative percent increase times the 0.00% billings adjustment.

(d) Receipts Factor from Financial Planning Model.

(e) Not used.

(f) Not used.

	New Rate	Pounds	Billings
BOD	0.3880	11,520,000	4,469,760
SS	0.3800	2,340,000	889,200
		Total	5,358,960

(h) Adjusted Total Less 3333333333

(i) Column (3) times (1- BILLAD1) or (1-0.00000).

(j) FY 2020 Adjusted Billings include 9.5 months at FY 2019 rates; FY 2021 Adjusted Billings include 9.5 months at FY 2021 rates and 2.5 months at FY 2020 rates; and FY 2022 Adjusted Billings include 9.5 months at FY 2022 rates and 2.5 months at FY 2021 rates.

(k) FY 2017 Billings	228,685,216	plus	4,895,000	233,580,000
FY 2018 Billings	240,078,634	plus	5,205,000	245,284,000

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
TYRECPIS - Test Year Receipts with Lag	P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.						LagRate-14
Percent Increase in Rates Required:	0.000039	(0.043304)	(0.181269)	(0.912342)				
	1.000039	0.956696	0.818731	0.087658				
Adjustment Factors ==>	USE: 1.048600 (a)	1.054000 (a)	1.054000 (a)					(a)
Reference:	FY 2019	FY 2020	FY 2021	FY 2022				
	\$	\$	\$	\$				
LagRate-13 Total Receipts	405,248,000	429,666,000	476,413,000	132,574,000				
Requirements:								
COS	441,547,800	459,447,849	482,049,012					
LagRate-19 Less Wholesale Customers (Including Mgmt Fee)								
Under Old Rates	LagRate-19a							
Under New Rates	(38,623,000)	(39,590,000)	(41,447,000)	LagRate-13 * 5.6365%				
Plus_CAP	2,331,000	2,231,000	2,131,000					
Total Requirements	405,255,800	422,088,849	442,733,012	0				
Revenue Surplus/(Deficiency)	(7,800)	7,577,151	33,679,988	132,574,000				
Total Increaseable Receipts	199,141,000	174,975,420	185,800,721	145,311,721				
ADJUSTMENT FACTOR REQUIRED	0.0039%	-4.3304%	-18.1269%	-91.2342%				
	0.00%							
	Test Year	Test Year	Test Year	Test Year				
	FY 2019 Receipts	FY 2020 Receipts	FY 2021 Receipts	FY 2022 Receipts				
	of Test Year	of Test Year	of Test Year	of Test Year				
	<u>FY 2019 Billings</u>	<u>FY 2020 Billings</u>	<u>FY 2021 Billings</u>	<u>FY 2022 Billings</u>				
	\$	\$	\$	\$				
General Customers								
LagRate-13 Service Charge	38,985,000	36,184,000	40,287,000	0				
LagRate-13 Volume Charge	162,127,000	175,011,000	195,002,000	40,715,000				
Total General Customers	201,112,000	211,195,000	235,289,000	40,715,000				
yyyyyyyyyy								
LagRate-13 Service Charge	0	0	0	0				
LagRate-13 Volume Charge	0	0	0	0				
Total yyyyyyyyyy	0	0	0	0				
LagRate-13 Surcharge	4,827,000	4,481,000	4,988,000	0				
Total	205,939,000	215,676,000	240,277,000	40,715,000				

(a) This factor is determined by trial and error until the ADJUSTMENT FACTOR REQUIRED below becomes zero. Keep multiplying this factor by the factor in the highlighted cell above until the ADJUSTMENT FACTOR REQUIRED is as close to zero as possible.

File: SCOS17_19_ver9_rates.xls					Philadelphia Water Department (PWD)	DRAFT - For Discussion Only				Test Year	2019	Budget Yr	2017	Ver. 1a
ADICOS - Modified COS Rates to Account for Lag					P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.								LagRate-15
(1)	(2)	(3)	(4)	(5)										
Meter Size inches	Meter Code	Lag Factor %	General Service Service Charge \$/Bill	Discount Service Charge (a) \$/Bill Col (4) x (1-25%)	Existing Rates	Existing Rates								
		<u>LagRate-14</u>	<u>LagRate-2</u>	<u>Col (4) x (1-25%)</u>										
5/8	R	104.9%	7.20	5.40	7.41	5.56	97.17%	97.12%						
3/4	Z	104.9%	9.16	6.87	9.08	6.81	100.88%	100.88%						
1	Q	104.9%	13.39	10.04	12.84	9.63	104.28%	104.26%						
1-1/4	Y	104.9%	18.80	14.10	17.61	13.21	106.76%	106.74%						
1-1/2	P	104.9%	23.49	17.62	21.63	16.22	108.60%	108.63%						
2	X	104.9%	36.19	27.14	32.90	24.68	110.00%	109.97%						
3	O	104.9%	65.17	48.88	58.40	43.80	111.59%	111.60%						
4	W	104.9%	110.83	83.12	100.05	75.04	110.77%	110.77%						
6	N	104.9%	218.35	163.76	196.03	147.02	111.39%	111.39%						
8	V	104.9%	345.40	259.05	308.78	231.59	111.86%	111.86%						
10	E	104.9%	498.57	373.93	446.41	334.81	111.68%	111.68%						
12	T	104.9%	905.54	679.16	801.99	601.49	112.91%	112.91%						
14	H	104.9%	954.50	715.88	0.00	0.00	0.00%	0.00%						
<u>Monthly Water Usage</u>			<u>Charge Per Mcf</u>	<u>Col (4) x (1-25%)</u>										
General Service Volume Cha			104.9%	31.76	23.82	discount vol charge	32.46	97.84%						
							24.35	97.82%						
<u>Wastewater Surcharge</u>			<u>Charge \$/lb</u>	<u>LagRate-2</u>										
				<u>x Col (3)</u>										
BOD in excess of 250 mg/l			104.9%	0.407			0.372	109.41%						
SS in excess of 350 mg/l			104.9%	0.398			0.393	101.27%						

(a) Discount rate applies to Senior Citizens and Charities.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)										Test Year	2019	Budget Yr	2017	Ver. 1a	
CTR/CTUnits - Contract Service Customers Billing Units	P.N. 135647.0100										DRAFT - For Discussion Only					February 11, 2018 9: February 11, 2018 9:39 a.m.
Reference: Financial Planning Model - Customer	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026					LagRate-16	
Abington											Abington					
Volume (Mcf)	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	Volume (\$Mcf)	1,5974				
Capacity (cfs)	9,2470	9,2470	9,2470	9,2470	9,2470	9,2470	9,2470	9,2470	9,2470	9,2470	Capacity (\$cfs)	11,925				
SS (1,000 lbs.)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	SS (\$1,000 lbs.)	216.66				
BOD (1,000 lbs.)	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	BOD (\$1,000 lbs.)	241.95				
											Annual Lump Sum (\$)	595,000				
											Management Fee (%)	12				
Bensalem											Bensalem					
Volume (Mcf)	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	Volume (\$Mcf)	1,5974				
Capacity (cfs)	11,7400	11,7400	11,7400	11,7400	11,7400	11,7400	11,7400	11,7400	11,7400	11,7400	Capacity (\$cfs)	11,925				
SS (1,000 lbs.)	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	SS (\$1,000 lbs.)	216.66				
BOD (1,000 lbs.)	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	BOD (\$1,000 lbs.)	241.95				
											Annual Lump Sum (\$)	91,000				
											Management Fee (%)	10				
Bucks County											Bucks County					
Volume (Mcf)	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	Volume (\$Mcf)	1,5974				
Capacity (cfs)	85,0800	85,0800	85,0800	85,0800	85,0800	85,0800	85,0800	85,0800	85,0800	85,0800	Capacity (\$cfs)	11,925				
SS (1,000 lbs.)	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	SS (\$1,000 lbs.)	216.66				
BOD (1,000 lbs.)	9,900	9,900	9,900	9,900	9,900	9,900	9,900	9,900	9,900	9,900	BOD (\$1,000 lbs.)	241.95				
											Annual Lump Sum (\$)	564,000				
											Management Fee (%)	10				
Cheltenham											Cheltenham					
Volume (Mcf)	325,000	325,000	325,000	325,000	325,000	325,000	325,000	325,000	325,000	325,000	Volume (\$Mcf)	1,4491				
Capacity (cfs)	20,7500	20,7500	20,7500	20,7500	20,7500	20,7500	20,7500	20,7500	20,7500	20,7500	Capacity (\$cfs)	6,489				
SS (1,000 lbs.)	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	SS (\$1,000 lbs.)	216.66				
BOD (1,000 lbs.)	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	BOD (\$1,000 lbs.)	241.95				
											Annual Lump Sum (\$)	1,495,000				
											Management Fee (%)	12				
Lower Merion											Lower Merion					
Volume (Mcf)	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	Volume (\$Mcf)	1,5974				
Capacity (cfs)	5,9410	5,9410	5,9410	5,9410	5,9410	5,9410	5,9410	5,9410	5,9410	5,9410	Capacity (\$cfs)	11,925				
SS (1,000 lbs.)	600	600	600	600	600	600	600	600	600	600	SS (\$1,000 lbs.)	216.66				
BOD (1,000 lbs.)	450	450	450	450	450	450	450	450	450	450	BOD (\$1,000 lbs.)	241.95				
											Annual Lump Sum (\$)	307,000				
											Management Fee (%)	12				
Lower Southampton											Lower Southampton					
Volume (Mcf)	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	Volume (\$Mcf)	1,5974				
Capacity (cfs)	15,7900	15,7900	15,7900	15,7900	15,7900	15,7900	15,7900	15,7900	15,7900	15,7900	Capacity (\$cfs)	11,925				
SS (1,000 lbs.)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	SS (\$1,000 lbs.)	216.66				
BOD (1,000 lbs.)	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	BOD (\$1,000 lbs.)	241.95				
											Annual Lump Sum (\$)	1,666,000				
											Management Fee (%)	12				
DELCORA											DELCORA					
Volume (Mcf)	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	Volume (\$Mcf)	1,3676				
Capacity (cfs)	155,0000	155,0000	155,0000	155,0000	155,0000	155,0000	155,0000	155,0000	155,0000	155,0000	Capacity (\$cfs)	6,090				
SS (1,000 lbs.)	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	SS (\$1,000 lbs.)	211.99				
BOD (1,000 lbs.)	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300	BOD (\$1,000 lbs.)	172.25				
											Annual Lump Sum (\$)	892,000				
											Management Fee (%)	12				
Lower Merion											Lower Merion					
Volume (Mcf)	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	Volume (\$Mcf)	1,4142				
Capacity (cfs)	31,5700	31,5700	31,5700	31,5700	31,5700	31,5700	31,5700	31,5700	31,5700	31,5700	Capacity (\$cfs)	6,229				
SS (1,000 lbs.)	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	SS (\$1,000 lbs.)	216.45				
BOD (1,000 lbs.)	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	BOD (\$1,000 lbs.)	173.25				
											Annual Lump Sum (\$)	123,000				
											Management Fee (%)	10				
Springfield (ex. Wyndmoor)											Springfield (ex. Wyndmoor)					
Volume (Mcf)	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	Volume (\$Mcf)	1,6307				
Capacity (cfs)	4,6000	4,6000	4,6000	4,6000	4,6000	4,6000	4,6000	4,6000	4,6000	4,6000	Capacity (\$cfs)	11,593				
SS (1,000 lbs.)	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	SS (\$1,000 lbs.)	216.45				
BOD (1,000 lbs.)	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	BOD (\$1,000 lbs.)	173.25				
											Annual Lump Sum (\$)	703,000				
											Management Fee (%)	12				
Upper Darby											Upper Darby					
Volume (Mcf)	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	460,000	Volume (\$Mcf)	1,4142				
Capacity (cfs)	35,0000	35,0000	35,0000	35,0000	35,0000	35,0000	35,0000	35,0000	35,0000	35,0000	Capacity (\$cfs)	6,229				
SS (1,000 lbs.)	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	SS (\$1,000 lbs.)	216.45				
BOD (1,000 lbs.)	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	BOD (\$1,000 lbs.)	173.25				
											Annual Lump Sum (\$)	55,000				
											Management Fee (%)	10				
Springfield (Wyndmoor)											Springfield (Wyndmoor)					
Volume (Mcf)	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	Volume (\$Mcf)	1,9311				
Capacity (cfs)	1,9300	1,9300	1,9300	1,9300	1,9300	1,9300	1,9300	1,9300	1,9300	1,9300	Capacity (\$cfs)	13,490				
SS (1,000 lbs.)	160	160	160	160	160	160	160	160	160	160	SS (\$1,000 lbs.)	320.33				
BOD (1,000 lbs.)	125	125	125	125	125	125	125	125	125	125	BOD (\$1,000 lbs.)	110.96				
											Annual Lump Sum (\$)	147,000				
											Management Fee (%)	12				

RATE DESIGN ADJUSTMENT TO UNIT O&M EXPENSE IN ORDER TO RECOVER COSTS ASSOCIATED WITH I/I WHEN RATES ARE APPLIED

Line No.	Contract Customer	Unit Costs			
		Volume \$/Mcf <u>Somallo-40</u>	Capacity \$/Mcf/day <u>Somallo-40</u>	Suspended Solids \$/1,000 lbs <u>Somallo-40</u>	Bod \$/1,000 lbs <u>Somallo-40</u>
<u>Abington,Bensalem, Bucks County,</u>					
<u>Lower Moreland and Lower Southampton</u>					
	Northeast WPCP - Preliminary Treatment	0.1091	67.7859		
	Northeast WPCP - Other	1.6722	79.6878	217.1024	249.7159
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.7813	147.4737	217.1024	249.7159
<u>Cheltenham</u>					
	Northeast WPCP	0.0000	0.0000		
	Northeast WPCP - Other	1.6722	79.6878	217.1024	249.7159
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.6722	79.6878	217.1024	249.7159
<u>DELCORA</u>					
	Southwest WPCP	1.5778	84.8363	188.4205	190.6239
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.5778	84.8363	188.4205	190.6239
<u>Lower Merion</u>					
	Southwest WF CP	1.6332	86.7678	192.4428	191.7510
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Neill Drive Pumping Station	0.8083	484.4805		
	CONTRACT ADJUSTMENT	0.0000	0.0000		
	Total	2.4415	571.2483	192.4428	191.7510
<u>Springfield (less Wyndmoor)</u>					
	Southwest WPCP	1.6332	86.7678	192.4428	191.7510
	Central Schuylkill Pumping Station	0.2581	18.8717		
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.8913	105.6395	192.4428	191.7510
<u>Upper Darby</u>					
	Southwest WPCP	1.6332	86.7678	192.4428	191.7510
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.6332	86.7678	192.4428	191.7510
<u>Springfield (Wyndmoor)</u>					
	Southwest WPCP	2.3451	188.8710	284.8195	125.3773
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	2.3451	188.8710	284.8195	125.3773
A lag factor is applied to all wholesale customer rates equal to		1.0000			
Months in effective test year:		12			
Months to collect COS:		12			
BUT, DELCORA is for		12 months, or an adjustment factor of	1.0000		

SUMMARY OF CHARGES FOR WHOLESALE CONTRACT CUSTOMERS EXCLUDING MANAGEMENT FEES

(1)	(2)				(5)
	Unit Costs				
Contract Customers	Annual Lump Sum Cost \$	Volume \$/Mcf Above	Capacity (a) \$/cfs Above	Suspended Solids \$/1,000 lbs Above	BOD \$/1,000 lbs Above
	<u>Retcos-10</u>				
Abington	588,000	1,781.3	12,742	217,1024	249,7159
Bensalem	93,000	1,781.3	12742	217,1024	249,7159
Bucks County (b)	808,000	1,781.3	12742	217,1024	249,7159
Cheltenham	1,490,000	1,6722	6,885	217,1024	249,7159
Lower Moreland	336,000	1,781.3	12742	217,1024	249,7159
Lower Southampton	1,902,000	1,781.3	12742	217,1024	249,7159
DELCORA (c)	1,177,000	1,5778	7,330	188,4205	190,6239
Lower Merion (c)(d)	126,000	1,6332	7,497	192,4428	191,7510
Springfield (less Wyndmoor)	694,000	1,8913	9,127	192,4428	191,7510
Upper Darby	43,000	1,6332	7,497	192,4428	191,7510
Springfield (Wyndmoor)	137,000	2,3451	16,318	284,8195	125,3773
Total	7,394,000				

- (a) Annual Cost.
- (b) Charges for recovery of costs associated with odor control of Bucks County W&SA wastewater are in addition to the charges shown herein.
- (c) For flow through City Line Avenue and Presidential Drive connection, an additional cost of \$0.8083 per Mcf is applicable for costs related to the Neill Drive Pump Station.
- (d) For contract capacity at the City Line Avenue and Presidential Drive connection, an additional charge of \$484.48 per Mcf/day (\$41,859.1 per cfs) is applicable to costs related to Neill Drive Pump Station.

SUMMARY OF EXISTING CHARGES FOR WHOLESALE CONTRACT CUSTOMERS (EXCLUDING MANAGEMENT FEES)

(1)	(2)				(5)
	Unit Costs				
Contract Customers	Annual Lump Sum Cost \$	Volume \$/Mcf	Capacity (e) \$/cfs	Suspended Solids \$/1,000 lbs	BOD \$/1,000 lbs
	<u>LagRate-16</u>				
Abington	595,000	1,5974	11,925	216,6649	241,9532
Bensalem	91,000	1,5974	11,925	216,6649	241,9532
Bucks County	564,000	1,5974	11,925	216,6649	241,9532
Cheltenham	1,495,000	1,4491	6,489	216,6649	241,9532
Lower Moreland	307,000	1,5974	11,925	216,6649	241,9532
Lower Southampton	1,666,000	1,5974	11,925	216,6649	241,9532
DELCORA	892,000	1,3676	6,090	211,9856	172,2535
Lower Merion (g)(h)	123,000	1,4142	6,229	216,4549	173,2514
Springfield (less Wyndmoor)	703,000	1,6307	11,593	216,4549	173,2514
Upper Darby	55,000	1,4142	6,229	216,4549	173,2514
Springfield	147,000	1,9311	13,490	320,3320	110,9647
Total	6,638,000				

- (e) Annual Cost.
- (f) DELCORA Unit Costs reflect recovery of lump sum costs in the unit charges for volume, capacity, and strength.
- (g) For flow through City Line Avenue and Presidential Drive connection, an additional cost of \$0.5952 per Mcf is applicable for costs related to the Neill Drive Pump Station.
- (h) For contract capacity at the City Line Avenue and Presidential Drive connection, an additional charge of \$49.72 per Mcf/day (\$4,296 per cfs) is applicable to costs related to Neill Drive Pump Station.

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)							DRAFT - For Discussion Only			Test Year	2019	Budget Yr	2017	Ver. 1a	
PRATES - Proposed Contract Rates and Percent Incr. Over Existing Rates		P.N. 135647.0100							February 11, 2018 9: February 11, 2018 9:39 a.m.							LagRate-18	
Reference		Abington	Bensalem	Bucks County	Cheltenham	Lower Moreland	Lower Southampton	DELCORA	Lower Merion	Springfield (ex. Wyndmoor)	Upper Darby	Springfield (Wyndmoor)					
New Rates																	
Volume (\$/McF)	LagRate-17	1,781.3	1,781.3	1,781.3	1,672.2	1,781.3	1,781.3	1,577.8	1,633.2	1,891.3	1,633.2	2,345.1					
Percent Incr. Over Old Rat	LagRate-16	111.51%	111.51%	111.51%	115.40%	111.51%	111.51%	115.37%	115.49%	115.98%	115.49%	121.44%					
Capacity (\$/cfs)	LagRate-17	12,742	12,742	12,742	6,885	12,742	12,742	7,330	7,497	9,127	7,497	16,318					
Percent Incr. Over Old Rat	LagRate-16	106.85%	106.85%	106.85%	106.10%	106.85%	106.85%	120.36%	120.36%	78.73%	120.36%	120.96%					
SS (\$/1,000 lbs.)	LagRate-17	217.10	217.10	217.10	217.10	217.10	217.10	188.42	192.44	192.44	192.44	284.82					
Percent Incr. Over Old Rat	LagRate-16	100.20%	100.20%	100.20%	100.20%	100.20%	100.20%	88.88%	88.91%	88.91%	88.91%	88.91%					
BOD (\$/1,000 lbs.)	LagRate-17	249.72	249.72	249.72	249.72	249.72	249.72	190.62	191.75	191.75	191.75	125.38					
Percent Incr. Over Old Rat	LagRate-16	103.21%	103.21%	103.21%	103.21%	103.21%	103.21%	110.66%	110.68%	110.68%	110.68%	112.99%					
Annual Lump Sum (\$)	LagRate-17	588,000	93,000	808,000	1,490,000	336,000	1,902,000	1,177,000	126,000	694,000	43,000	137,000					
Percent Incr. Over Old Rat	LagRate-16	98.82%	102.20%	143.26%	99.67%	109.45%	114.17%	131.95%	102.44%	98.72%	78.18%	93.20%					
Management Fee (%)		12	10	10	12	12	12	12	10	12	10	12					

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)										Test Year	2019	Budget Yr	2017	Ver. 1a					
CTR/CANAL1 - Outret Serv. Proposed Rates Receipts Analysis - Part 1	P.N. 135647.0100										DRAFT - For Discussion Only					February 11, 2018 9: February 11, 2018 9:39 a.m.				
Reference:	B. Billing Units (LagRate-16) x Percent Increase over existing rates (LagRate-18)															FY 2019 Test Year Receipts Under Existing Rates \$				
Contract Customers	Receipts										Test Year \$									
	FY 2015 \$ Ref. B	FY 2016 \$ Ref. B	FY 2017 \$ Ref. B	FY 2018 \$ Ref. B	FY 2019 \$ Ref. B	FY 2020 \$ Ref. B	FY 2021 \$ Ref. B	FY 2022 \$ Ref. B	FY 2023 \$ Ref. B	FY 2024 \$ Ref. B										
Camden - Ref. A	Temporary wastewater service to Camden ceased in January 1996										0									
Abington																				
Volume	0	0	0	174,567	174,567	174,567	174,567	174,567	174,567	174,567	174,567									
Capacity	0	0	0	117,825	117,825	117,825	117,825	117,825	117,825	117,825	117,825									
SS	0	0	0	217,102	217,102	217,102	217,102	217,102	217,102	217,102	217,102									
BOD	0	0	0	349,602	349,602	349,602	349,602	349,602	349,602	349,602	349,602									
Annual Lump Sum	0	0	0	588,000	588,000	588,000	588,000	588,000	588,000	588,000	588,000									
Management Fee	0	0	0	173,652	173,652	173,652	173,652	173,652	173,652	173,652	173,652									
Subtotal	1,505,854	1,253,583	1,587,281	1,620,748	1,620,748	1,620,748	1,620,748	1,620,748	1,620,748	1,620,748	1,620,748		1,615,862							
Bensalem																				
Volume	0	0	0	302,821	302,821	302,821	302,821	302,821	302,821	302,821	302,821									
Capacity	0	0	0	149,591	149,591	149,591	149,591	149,591	149,591	149,591	149,591									
SS	0	0	0	488,480	488,480	488,480	488,480	488,480	488,480	488,480	488,480									
BOD	0	0	0	674,233	674,233	674,233	674,233	674,233	674,233	674,233	674,233									
Annual Lump Sum	0	0	0	93,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000									
Management Fee	0	0	0	170,813	170,813	170,813	170,813	170,813	170,813	170,813	170,813									
Subtotal	1,599,973	1,884,725	1,807,660	1,878,938	1,878,938	1,878,938	1,878,938	1,878,938	1,878,938	1,878,938	1,878,938		1,861,178							
Bucks County																				
Volume	0	0	0	1,425,040	1,425,040	1,425,040	1,425,040	1,425,040	1,425,040	1,425,040	1,425,040									
Capacity	0	0	0	1,084,089	1,084,089	1,084,089	1,084,089	1,084,089	1,084,089	1,084,089	1,084,089									
SS	0	0	0	2,279,575	2,279,575	2,279,575	2,279,575	2,279,575	2,279,575	2,279,575	2,279,575									
BOD	0	0	0	2,472,187	2,472,187	2,472,187	2,472,187	2,472,187	2,472,187	2,472,187	2,472,187									
Annual Lump Sum (a)	0	0	0	808,000	808,000	808,000	808,000	808,000	808,000	808,000	808,000									
Management Fee	0	0	0	806,889	806,889	806,889	806,889	806,889	806,889	806,889	806,889									
Subtotal	8,129,534	7,330,114	8,279,499	8,875,780	8,875,780	8,875,780	8,875,780	8,875,780	8,875,780	8,875,780	8,875,780		8,792,078							
Cheltenham																				
Volume	0	0	0	543,465	543,465	543,465	543,465	543,465	543,465	543,465	543,465									
Capacity	0	0	0	142,864	142,864	142,864	142,864	142,864	142,864	142,864	142,864									
SS	0	0	0	607,887	607,887	607,887	607,887	607,887	607,887	607,887	607,887									
BOD	0	0	0	599,318	599,318	599,318	599,318	599,318	599,318	599,318	599,318									
Annual Lump Sum	0	0	0	1,490,000	1,490,000	1,490,000	1,490,000	1,490,000	1,490,000	1,490,000	1,490,000									
Management Fee	0	0	0	406,024	406,024	406,024	406,024	406,024	406,024	406,024	406,024									
Subtotal	3,329,092	3,105,390	3,682,508	3,789,558	3,789,558	3,789,558	3,789,558	3,789,558	3,789,558	3,789,558	3,789,558		3,761,407							
Lower Moreland																				
Volume	0	0	0	97,972	97,972	97,972	97,972	97,972	97,972	97,972	97,972									
Capacity	0	0	0	75,700	75,700	75,700	75,700	75,700	75,700	75,700	75,700									
SS	0	0	0	130,261	130,261	130,261	130,261	130,261	130,261	130,261	130,261									
BOD	0	0	0	112,372	112,372	112,372	112,372	112,372	112,372	112,372	112,372									
Annual Lump Sum	0	0	0	336,000	336,000	336,000	336,000	336,000	336,000	336,000	336,000									
Management Fee	0	0	0	90,277	90,277	90,277	90,277	90,277	90,277	90,277	90,277									
Subtotal	761,457	706,083	789,131	842,582	842,582	842,582	842,582	842,582	842,582	842,582	842,582		802,664							
Lower Southampton																				
Volume	0	0	0	463,138	463,138	463,138	463,138	463,138	463,138	463,138	463,138									
Capacity	0	0	0	201,196	201,196	201,196	201,196	201,196	201,196	201,196	201,196									
SS	0	0	0	542,756	542,756	542,756	542,756	542,756	542,756	542,756	542,756									
BOD	0	0	0	524,403	524,403	524,403	524,403	524,403	524,403	524,403	524,403									
Annual Lump Sum	0	0	0	1,902,000	1,902,000	1,902,000	1,902,000	1,902,000	1,902,000	1,902,000	1,902,000									
Management Fee	0	0	0	436,019	436,019	436,019	436,019	436,019	436,019	436,019	436,019									
Subtotal	3,107,223	3,055,409	3,717,710	4,069,512	4,069,512	4,069,512	4,069,512	4,069,512	4,069,512	4,069,512	4,069,512		3,901,296							

(a) See footnote at bottom of LagRate-19a.

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)										Test Year	2019	Budget Yr	2017	Ver. 1a	
CTRCTANAL2 - Cntrct Serv. Proposed Rates Receipts Analysis - Part 2	P.N. 135647.0100										DRAFT - For Discussion Only					February 11, 2018 9: February 11, 2018 9:39 a.m.
Reference:	B. Billing Units (LagRate-16) x Percent Increase over existing rates (LagRate-18), except FY 2015 through FY 2017 are under existing rates.											FY 2019	FY 2019			
	Receipts										FY 2019	FY 2019				
Contract Customers	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Test Year	Test Year	Receipts	Under Existing	Rate	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
	Ref. B	Ref. B	Ref. B	Ref. B	Ref. B	Ref. B	Ref. B	Ref. B	Ref. B	Ref. B						
DELCORA																
Volume	0	0	0	1,893,360	1,893,360	1,893,360	1,893,360	1,893,360	1,893,360	1,893,360	1,893,360	1,893,360				
Capacity	0	0	0	1,136,150	1,136,150	1,136,150	1,136,150	1,136,150	1,136,150	1,136,150	1,136,150	1,136,150				
SS	0	0	0	2,449,467	2,449,467	2,449,467	2,449,467	2,449,467	2,449,467	2,449,467	2,449,467	2,449,467				
BOD	0	0	0	2,154,050	2,154,050	2,154,050	2,154,050	2,154,050	2,154,050	2,154,050	2,154,050	2,154,050				
Annual Lump Sum	0	0	0	1,177,000	1,177,000	1,177,000	1,177,000	1,177,000	1,177,000	1,177,000	1,177,000	1,177,000				
Management Fee	0	0	0	1,057,203	1,057,203	1,057,203	1,057,203	1,057,203	1,057,203	1,057,203	1,057,203	1,057,203				
Subtotal	7,886,945	7,595,414	9,160,869	9,867,230	9,867,230	9,867,230	9,867,230	9,867,230	9,867,230	9,867,230	9,867,230	9,867,230		9,404,206		
Lower Merion																
Volume (c)	0	0	0	583,179	583,179	583,179	583,179	583,179	583,179	583,179	583,179	583,179				
Capacity (c)	0	0	0	292,396	292,396	292,396	292,396	292,396	292,396	292,396	292,396	292,396				
SS	0	0	0	673,550	673,550	673,550	673,550	673,550	673,550	673,550	673,550	673,550				
BOD	0	0	0	594,428	594,428	594,428	594,428	594,428	594,428	594,428	594,428	594,428				
Annual Lump Sum	0	0	0	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000				
Management Fee	0	0	0	226,955	226,955	226,955	226,955	226,955	226,955	226,955	226,955	226,955				
Subtotal	2,533,305	2,089,501	2,320,220	2,496,508	2,496,508	2,496,508	2,496,508	2,496,508	2,496,508	2,496,508	2,496,508	2,496,508		2,385,146		
Springfield (less Wyndmoor)																
Volume	0	0	0	283,695	283,695	283,695	283,695	283,695	283,695	283,695	283,695	283,695				
Capacity	0	0	0	41,984	41,984	41,984	41,984	41,984	41,984	41,984	41,984	41,984				
SS	0	0	0	346,397	346,397	346,397	346,397	346,397	346,397	346,397	346,397	346,397				
BOD	0	0	0	325,977	325,977	325,977	325,977	325,977	325,977	325,977	325,977	325,977				
Annual Lump Sum	0	0	0	694,000	694,000	694,000	694,000	694,000	694,000	694,000	694,000	694,000				
Management Fee	0	0	0	203,046	203,046	203,046	203,046	203,046	203,046	203,046	203,046	203,046				
Subtotal	1,720,964	1,811,441	1,887,288	1,895,099	1,895,099	1,895,099	1,895,099	1,895,099	1,895,099	1,895,099	1,895,099	1,895,099		1,920,238		
Upper Darby																
Volume	0	0	0	751,272	751,272	751,272	751,272	751,272	751,272	751,272	751,272	751,272				
Capacity	0	0	0	262,395	262,395	262,395	262,395	262,395	262,395	262,395	262,395	262,395				
SS	0	0	0	885,237	885,237	885,237	885,237	885,237	885,237	885,237	885,237	885,237				
BOD	0	0	0	767,004	767,004	767,004	767,004	767,004	767,004	767,004	767,004	767,004				
Annual Lump Sum	0	0	0	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000				
Management Fee	0	0	0	270,891	270,891	270,891	270,891	270,891	270,891	270,891	270,891	270,891				
Subtotal	2,888,737	2,620,282	2,873,470	2,979,799	2,979,799	2,979,799	2,979,799	2,979,799	2,979,799	2,979,799	2,979,799	2,979,799		2,957,109		
Springfield (Wyndmoor)																
Volume	0	0	0	44,557	44,557	44,557	44,557	44,557	44,557	44,557	44,557	44,557				
Capacity	0	0	0	31,494	31,494	31,494	31,494	31,494	31,494	31,494	31,494	31,494				
SS	0	0	0	45,571	45,571	45,571	45,571	45,571	45,571	45,571	45,571	45,571				
BOD	0	0	0	15,672	15,672	15,672	15,672	15,672	15,672	15,672	15,672	15,672				
Annual Lump Sum	0	0	0	137,000	137,000	137,000	137,000	137,000	137,000	137,000	137,000	137,000				
Management Fee	0	0	0	32,915	32,915	32,915	32,915	32,915	32,915	32,915	32,915	32,915				
Subtotal	283,945	308,353	307,832	307,209	307,209	307,209	307,209	307,209	307,209	307,209	307,209	307,209		312,115		
Total	33,747,029	31,760,293	36,413,468	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963		37,713,296	909,667	
CHECK	33,747,029	31,760,293	36,413,468	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963	38,622,963		37,713,296		

(a) Includes Direct charges to Bucks County for odor control of \$0.0 per year.
 (b) DELCORA Unit Costs reflect recovery of lump sum costs in the unit charges for volume, capacity, and strength.
 (c) Includes charges for flow through the City Line Avenue and Presidential Drive connection.

File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)					DRAFT - For Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
COSCLASS - COS & Adjusted COS by Class		P.N. 135647.0100					February 11, 2018 9: February 11, 2018 9:39 a.m.						LagRate-20
Line No.	Customer Class	(1)	(2)	(3)	(4)	(5)	(6)	(7)					
		Allocated Cost of Service (a)	Discounted COS	Cost of Service With Discount	Discounts	Recovery of Discounts	Adjusted Cost of Service	Percent Change					
		\$	\$	\$	\$	\$	\$						
		<u>Retcos-17</u>		(1) or (2)	(1) - (3)		(3) + (5)	((6) - (1)) / (1)					
1	Residential Excluding Senior Citizens	125,711,986		125,711,986	0	3,039,775	128,751,761	2.42%					
2	Commercial	48,738,989		48,738,989		1,178,532	49,917,521	2.42%					
3	Industrial	2,740,432		2,740,432		66,265	2,806,697	2.42%					
4	Public Utilities	370,011		370,011		8,947	378,958	2.42%					
5	Senior Citizens	5,085,084	3,813,813	3,813,813	1,271,271	92,220	3,906,033	-23.19%					
6	Sewer Only	2,272,776		2,272,776		54,957	2,327,733	2.42%					
7	Groundwater	2,839,742		2,839,742		68,666	2,908,408	2.42%					
8	Surcharge	5,507,593		5,507,593		133,176	5,640,769	2.42%					
9	Housing Authority	5,411,435	5,140,863	5,140,863	270,572	124,308	5,265,172	-2.70%					
10	Charities and Schools	6,363,186	4,772,390	4,772,390	1,590,797	115,399	4,887,788	-23.19%					
11	Hospitals and Universities	8,885,181	6,663,886	6,663,886	2,221,295	161,136	6,825,022	-23.19%					
12	Hand Bill	12,690,500		12,690,500		306,862	12,997,362	2.42%					
13	xxxxxxxxxx	0		0		0	0	0.00%					
14	Water Treatment Plant Sludge	13,429,555		13,429,555			13,429,555	0.00%					
15	Private Fire Connections	152,045		152,045		3,677	155,722	2.42%					
16	Scheduled (Flat Rate)	623		623		15	638	2.42%					
17	yyyyyyyyyy	0		0		0	0	0.00%					
18	Total Retail Service	240,199,138	20,390,952	234,845,204	5,353,935	5,353,935	240,199,138	0.00%					
19													
20	Contract Service	38,554,377		38,554,377	0		38,554,377	0.00%					
21	Total System	278,753,515	20,390,952	273,399,581	5,353,935	5,353,935	278,753,515	0.00%					

(a) Includes allocation of LI

**SUMMARY OF ALLOCATED COST OF SERVICE
FOR CONTRACT CUSTOMERS
Test Year 2019**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	FY 2019 Test Year Proposed Receipts Under Rates	Difference
	Allocated Investment \$	Allocated Depreciable Investment \$	O&M Expense \$	Depreciation Expense (b) \$	Return on Investment (c) \$	Management Fee \$	Allocated Cost of Service \$	\$	\$
	<u>Retcos-11</u>	<u>Retcos-11</u>	<u>Retcos-11</u>	<u>Retcos-11</u>	<u>Retcos-11</u>	<u>Retcos-7</u>			
Abington	5,361,000	5,344,000	921,000	129,555	402,075	173,616	1,626,246	1,620,748	5,498
Bensalem	9,230,000	9,201,000	1,702,000	(a)	(a)	170,813	1,872,813	1,878,938	(6,125)
Bucks County	31,398,000	31,299,000	7,368,000	129,485	425,625	806,911	8,730,021	8,875,780	(145,759) Direct Chemical Costs
Cheltenham	13,526,000	13,483,000	2,127,000	327,825	1,014,450	406,060	3,875,335	3,789,558	85,777
DELCORA	52,186,000	52,039,000	8,045,000	173,365	597,450	1,057,173	9,872,988	9,867,230	5,758
Lower Merion	16,234,000	16,189,000	2,275,000	(a)	(a)	226,955	2,501,955	2,496,508	5,447
Lower Moreland	2,781,000	2,774,000	480,000	64,845	208,575	90,325	843,745	842,582	1,163
Lower Southampton	20,488,000	20,453,000	2,184,000	330,481	1,109,767	436,032	4,060,280	4,069,512	(9,232)
Springfield (excl. Wyndmoor)	6,122,000	6,106,000	1,076,000	146,950	459,150	203,070	1,885,170	1,895,099	(9,929)
Springfield (Wyndmoor)	1,177,000	1,176,000	158,000	27,745	88,275	32,915	306,935	307,209	(274)
Upper Darby	16,202,000	16,153,000	2,708,000	(a)	(a)	270,889	2,978,889	2,979,799	(910)
Total	174,705,000	174,217,000	29,044,000	1,330,251	4,305,367	3,874,759	38,554,377	38,622,963	(68,586)

(a) It is assumed that Bensalem, Bucks County, DELCORA, Lower Merion, Lower Southampton, and Upper Darby contribute their entire allocated plant investment, and therefore, are not allocated any depreciation expense or return on investment.
 (b) Treatment Plant depreciation rate = 2.50%.
 (c) Outside City rate of return = 7.50%.

**COMPARISON OF TEST YEAR COSTS OF SERVICE
 AND ADJUSTED COST OF SERVICE
 WITH REVENUES UNDER EXISTING RATES
 TEST YEAR 2019**

Line No.	Customer Class	(1)	(2)	(3)	(4)
		Revenue Under Existing Rates (a) \$	Allocated Cost of Service \$	Adjusted Cost of Service \$	Indicated Increase (Decrease) Required %
			Retcos-17	LagRate-20	(3)/(1)-1
1	Residential Excluding Senior Citizens	134,799,684	125,711,986	128,751,761	(4.5)
2	Commercial	51,974,873	48,738,989	49,917,521	(4.0)
3	Industrial	2,921,390	2,740,432	2,806,697	(3.9)
4	Public Utilities	390,503	370,011	378,958	(3.0)
5	Senior Citizens	4,090,619	5,085,084	3,906,033	(4.5)
6	Housing Authority	5,499,926	5,411,435	5,265,172	(4.3)
7	Charities and Schools	5,045,092	6,363,186	4,887,788	(3.1)
8	Hospitals and Universities	7,113,588	8,885,181	6,825,022	(4.1)
9	Hand Bill	13,592,762	12,690,500	12,997,362	(4.4)
10	xxxxxxxxxx	0	0	0	0.0
11	Fire Meters	140,842	152,045	155,722	10.6
12	Scheduled (Flat Rate)	1,009	623	638	(36.7)
13	yyyyyyyyyy	0	0	0	0.0
14	Sewer Only	2,436,940	2,272,776	2,327,733	(4.5)
15	Groundwater	2,416,018	2,839,742	2,908,408	20.4
16	Surcharge	5,205,000	5,507,593	5,640,769	8.4
17	Total Retail Service	235,628,247	226,769,583	226,769,583	(3.8)
18	Contract Service	37,713,296	38,554,377	38,554,377	2.2
19	Total System	273,341,544	265,323,960	265,323,960	(2.9)

(a) Test Year Revenues under existing rates:

Receipts Factor (RECPTS)	1.56		9.08		85.90
	Billings Under Existing Rates		Billings Under Existing Rates		Receipts
	2017	2018	2019		
	Billings	Billings	Billings		
	LagRate-4	LagRate-4	LagRate-4		
Residential (excluding Senior Citizens)	135,023,404	140,924,046	139,577,899	134,799,684	
Commercial	51,001,112	53,941,409	53,878,202	51,974,873	
Industrial	2,852,100	3,025,657	3,029,299	2,921,390	
Public Utilities	381,253	404,341	404,938	390,503	
Senior Citizens	4,112,197	4,280,018	4,234,975	4,090,619	
Housing Authority	5,365,449	5,691,129	5,703,691	5,499,926	
"N" Charities	4,919,103	5,220,787	5,232,022	5,045,092	
"6 Cent" Charities	6,924,557	7,360,133	7,377,492	7,113,588	
Hand Bill	13,226,631	14,063,231	14,097,189	13,592,762	
xxxxxxxxxx	0	0	0	0	
Fire Meters	137,010	145,712	146,070	140,842	
Scheduled (Flat Rate)	989	1,044	1,046	1,009	
yyyyyyyyyy	0	0	0	0	
Sewer Only	2,371,123	2,521,254	2,527,382	2,436,940	
Ground Water Charges	2,370,288	2,499,875	2,505,300	2,416,018	
Townships (LagRate-19a)	31,760,293	36,413,468	37,713,296	37,713,296	
Total (excluding Surcharge)	260,445,509	276,492,103	276,428,800	268,136,544	
Surcharge (above)			238,715,504	5,205,000	
Total				273,341,544	
Total Per Cash Flow				431,108,149	Not including stormwater revenue
Cash Flow Total Less This Page Total				157,766,605	
Percent Error of Cash Flow Total				36.6%	

==== No lag is applied to City billings.

**COMPARISON OF CONTRACT SERVICE REVENUE
 UNDER EXISTING AND ADJUSTED RATES
 TEST YEAR 2019**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Existing Rates						Adjusted Rates					
Units of Service	Unit Charge \$/unit	Revenue \$	Unit Charge \$/unit	Revenue \$	Revenue Difference \$	Units of Service	Unit Charge \$/unit	Revenue \$	Unit Charge \$/unit	Revenue \$	Revenue Difference \$
Ref. A	LagRate-16	(1) x (2)	LagRate-17	(1) x (4)	(5) - (3)	Ref. A	LagRate-16	(7) x (8)	LagRate-17	(7) x (10)	(11) - (9)
Abington						DELCORA					
O&M Charges						O&M Charges					
Volume (Mcf)	1,5974	156,545	1,7813	174,567	18,022	Volume (Mcf)	1,3676	1,641,120	1,5778	1,893,360	252,240
Capacity (cfs)	11,9225	110,270	12,742	117,825	7,555	Capacity (cfs)	6,090	943,950	7,330	1,136,150	192,200
Suspended Solids (1,000 lbs)	216.66	216,665	217.10	217,102	437	Suspended Solids (1,000 lbs)	211.99	2,755,813	188.42	2,449,467	(306,346)
BOD (1,000 lbs)	241.95	338,734	249.72	349,602	10,868	BOD (1,000 lbs)	172.25	1,946,465	190.62	2,154,050	207,585
Subtotal		822,214		859,096	36,882	Subtotal		7,287,348		7,633,027	345,679
Lump Sum Charge	595,000	595,000	588,000	588,000	(7,000)	Lump Sum Charge	892,000	892,000	0	0	(892,000)
Management Fee	12%	170,066	12%	173,652	3,586	Management Fee	12%	981,522	12%	915,963	(65,559)
Total Service Charge		1,587,280		1,620,748	33,468	Total Service Charge		9,160,870		8,548,990	(611,880)
Bensalem						Lower Merion					
O&M Charges						O&M Charges					
Volume (Mcf)	1,5974	271,558	1,7813	302,821	31,263	Volume (Mcf) (b)	1,4142	494,970	1,6332	583,179	88,209
Capacity (cfs)	11,9225	140,000	12,742	149,591	9,591	Capacity (cfs) (b)	3,500	5,142	3,500	5,142	0
Suspended Solids (1,000 lbs)	216.66	487,496	217.10	488,480	984	Suspended Solids (1,000 lbs)	1,7325	757,592	1,9244	673,550	(84,042)
BOD (1,000 lbs)	241.95	653,274	249.72	674,233	20,959	BOD (1,000 lbs)	3,100	537,079	1,9175	594,428	57,349
Subtotal		1,552,328		1,615,125	62,797	Subtotal		1,986,291		2,143,553	157,262
Lump Sum Charge	91,000	91,000	93,000	93,000	2,000	Lump Sum Charge	123,000	123,000	126,000	126,000	3,000
Management Fee	10%	164,333	10%	170,813	6,480	Management Fee	10%	210,929	10%	226,955	16,026
Total Service Charge		1,807,661		1,878,938	71,277	Total Service Charge		2,320,220		2,496,508	176,288
Bucks County						Springfield (less Wyalnmoor)					
O&M Charges						O&M Charges					
Volume (Mcf)	1,5974	1,277,920	1,7813	1,425,040	147,120	Volume (Mcf)	1,6307	244,605	1,8913	283,695	39,090
Capacity (cfs)	11,9225	1,014,579	12,742	1,084,089	69,510	Capacity (cfs)	1,593	53,328	1,924	41,984	(11,344)
Suspended Solids (1,000 lbs)	216.66	2,279,575	217.10	2,279,575	0	Suspended Solids (1,000 lbs)	1,800	389,619	1,9244	346,397	(43,222)
BOD (1,000 lbs)	241.95	2,395,337	249.72	2,472,187	76,850	BOD (1,000 lbs)	1,700	294,527	1,9175	325,977	31,450
Subtotal		6,962,817		7,260,891	298,074	Subtotal		982,079		998,053	15,974
Lump Sum Charge (a)	564,000	564,000	808,000	808,000	244,000	Lump Sum Charge	703,000	703,000	694,000	694,000	(9,000)
Management Fee	10%	752,882	10%	806,889	54,207	Management Fee	12%	202,209	12%	203,046	837
Total Service Charge		8,279,499		8,875,780	596,281	Total Service Charge		1,887,288		1,895,099	7,811
Cheltenham						Upper Darby					
O&M Charges						O&M Charges					
Volume (Mcf)	1,4491	470,958	1,6722	543,465	72,507	Volume (Mcf)	1,4142	650,532	1,6332	751,272	100,740
Capacity (cfs)	6,489	134,647	6,885	142,864	8,217	Capacity (cfs)	6,229	218,015	7,497	262,395	44,380
Suspended Solids (1,000 lbs)	216.66	606,662	217.10	607,887	1,225	Suspended Solids (1,000 lbs)	4,600	995,693	1,9244	885,237	(110,456)
BOD (1,000 lbs)	241.95	580,688	249.72	599,318	18,630	BOD (1,000 lbs)	4,000	693,006	1,9175	767,004	73,998
Subtotal		1,792,955		1,893,534	100,579	Subtotal		2,557,246		2,665,908	108,662
Lump Sum Charge	1,495,000	1,495,000	1,490,000	1,490,000	(5,000)	Lump Sum Charge	55,000	55,000	43,000	43,000	(12,000)
Management Fee	12%	394,555	12%	406,024	11,469	Management Fee	10%	261,225	10%	270,891	9,666
Total Service Charge		3,682,510		3,789,558	107,048	Total Service Charge		2,873,471		2,979,799	106,328
Lower Moreland						Springfield (Wynnmoor)					
O&M Charges						O&M Charges					
Volume (Mcf)	1,5974	87,857	1,7813	97,972	10,115	Volume (Mcf)	1,9311	36,691	2,3451	44,557	7,866
Capacity (cfs)	11,9225	70,846	12,742	75,700	4,854	Capacity (cfs)	1,3490	26,036	1,6318	31,494	5,458
Suspended Solids (1,000 lbs)	216.66	129,999	217.10	130,261	262	Suspended Solids (1,000 lbs)	160	320,33	284.82	45,571	(5,682)
BOD (1,000 lbs)	241.95	108,879	249.72	112,372	3,493	BOD (1,000 lbs)	125	110,96	13,871	15,672	1,801
Subtotal		397,581		416,305	18,724	Subtotal		127,851		137,294	9,443
Lump Sum Charge	307,000	307,000	336,000	336,000	29,000	Lump Sum Charge	147,000	147,000	137,000	137,000	(10,000)
Management Fee	12%	84,550	12%	90,277	5,727	Management Fee	12%	32,982	12%	32,915	(67)
Total Service Charge		789,131		842,582	53,451	Total Service Charge		307,833		307,209	(624)
Lower Southampton						Total Contract Service Revenue					
O&M Charges						36,413,473					
Volume (Mcf)	1,5974	415,324	1,7813	463,138	47,814					37,304,723	891,250
Capacity (cfs)	11,9225	188,296	12,742	201,196	12,900						
Suspended Solids (1,000 lbs)	216.66	541,662	217.10	542,756	1,094						
BOD (1,000 lbs)	241.95	508,102	249.72	524,403	16,301						
Subtotal		1,653,384		1,731,493	78,109						
Lump Sum Charge	1,666,000	1,666,000	1,902,000	1,902,000	236,000						
Management Fee	12%	398,326	12%	436,019	37,693						
Total Service Charge		3,717,710		4,069,512	351,802						

(a) Includes charges for recovery of costs associated with odor control of Bucks County wastewater.
 (b) Includes charges for flow through the City Line Avenue and Presidential Drive connection.

Reference: [Reloc-17](#)
[LagRate-21](#)

**WASTEWATER UTILITY
 COST OF SERVICE
 TEST YEAR 2019**

Line No.	Customer Class	(1) Operation and Maintenance Expense (a) \$	(2) Capital Cost (a) \$	(3) Total Cost of Service \$
1	Residential Excluding Senior Citizens	89,899,159	35,812,827	125,711,986
2	Commercial	33,405,134	15,333,855	48,738,989
3	Industrial	1,867,079	873,353	2,740,432
4	Public Utilities	252,648	117,363	370,011
5	Senior Citizens	3,690,679	1,394,405	5,085,084
6	Housing Authority	3,727,058	1,684,377	5,411,435
7	Charities and Schools	4,345,906	2,017,280	6,363,186
8	Hospitals & Universities	6,020,177	2,865,004	8,885,181
9	Hand Billed	8,586,473	4,104,027	12,690,500
10	XXXXXXXXXX	0	0	0
11	Private Fire Connections	104,040	48,005	152,045
12	Scheduled (Flat Rate)	451	172	623
13	yyyyyyyyyy	0	0	0
14	Sewer Only	1,537,665	735,111	2,272,776
15	Groundwater	1,828,691	1,011,051	2,839,742
16	Surcharge	4,437,783	1,069,810	5,507,593
17	Total Retail Service	159,702,943	67,066,640	226,769,583
18				
19	Contract Service	29,044,000	9,510,377	38,554,377
20	Total System	188,746,943	76,577,017	265,323,960
 (a) Total cost of service excludes costs associated with water treatment				
	Water Treatment Plant Sludge	9,662,332	3,767,223	13,429,555
	Cost of Service to be Derived from Rates	198,409,275	80,344,240	278,753,515

PROPOSED WASTEWATER RATES FOR GENERAL SERVICE

Service Charge

Meter Size inches	Monthly Charge \$
5/8	7.20
3/4	9.16
1	13.39
1 1/4	18.80
1 1/2	23.49
2	36.19
3	65.17
4	110.83
6	218.35
8	345.40
10	498.57
12	905.54

Quantity Charge

Monthly Water Usage	Charge Per Mcf \$
All billable water usage	31.76
Groundwater Charge	14.19

Surcharge Rates

BOD (\$/lb in excess of 250 mg/l)	0.407
SS (\$/lb in excess of 350 mg/l)	0.398
Mcf - thousand cubic feet	
mg/l - milligrams per liter	

Comparison of Typical Residential Water and Wastewater Bills Under Existing and Proposed Rates

(1)	(2)	(3) Existing Charge				(4) Proposed Charge				(10) Increase %	(11) Water % Change	(12) Sewer % Change	(13) Stormwater % Change
		(5) Water \$	(6) Sewer \$	(7) Stormwater \$	(8) Total \$	(9) Water \$	(10) Sewer \$	(11) Stormwater \$	(12) Total \$				
5/8	0.0	6.61	7.41	14.71	28.73	6.18	7.20	16.00	29.38	2.3	-6.51%	-2.83%	8.80%
5/8	0.2	15.23	13.90	14.71	43.84	14.97	13.55	16.00	44.52	1.6	-1.71%	-2.52%	8.80%
5/8	0.3	19.53	17.15	14.71	51.39	19.36	16.73	16.00	52.09	1.4	-0.90%	-2.45%	8.80%
5/8	0.4	23.84	20.39	14.71	58.95	23.75	19.90	16.00	59.66	1.2	-0.38%	-2.40%	8.80%
5/8	0.5	28.15	23.64	14.71	66.50	28.15	23.08	16.00	67.23	1.1	-0.02%	-2.37%	8.80%
5/8	0.6	32.46	26.89	14.71	74.05	32.54	26.26	16.00	74.80	1.0	0.25%	-2.34%	8.80%
5/8	0.7	36.77	30.13	14.71	81.61	36.93	29.43	16.00	82.37	0.9	0.45%	-2.32%	8.80%
5/8	0.8	41.07	33.38	14.71	89.16	41.32	32.61	16.00	89.94	0.9	0.61%	-2.31%	8.80%
5/8	1.7	79.85	62.59	14.71	157.15	80.86	61.19	16.00	158.06	0.6	1.27%	-2.24%	8.80%
5/8	2.7	119.14	95.05	14.71	228.90	120.49	92.95	16.00	229.44	0.2	1.13%	-2.21%	8.80%
5/8	3.3	141.74	114.53	14.71	270.98	143.15	112.01	16.00	271.17	0.1	1.00%	-2.20%	8.80%

Meter Size inches	FY 2019		%
	Existing \$/Bill	Proposed \$/Bill	
File: WCOS17_19_ver8_ra\WCOS17_19_ver8_rates.xls			
	LagRate-2	LagRate-12	
5/8	6.61	6.18	93.5%
3/4	7.59	7.13	93.9%
1	10.02	9.48	94.6%
1-1/4	13.03	12.41	95.2%
1-1/2	15.38	14.72	95.7%
2	22.66	21.76	96.0%
3	38.70	37.36	96.5%
4	67.61	65.10	96.3%
6	130.56	125.96	96.5%
8	203.32	196.44	96.6%
10	295.18	285.03	96.6%
12	514.45	498.73	96.9%
Monthly Water Usage			
	\$/Mcf	\$/Mcf	
First 2 Mcf	43.08	43.93	102.0%
Next 98 Mcf	37.67	37.78	100.3%
Next 1,900 Mcf	29.31	29.28	99.9%
Over 2,000 Mcf	28.51	28.48	99.9%

File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:February 11, 2018 9:39 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a LagRate-27
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File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:February 11, 2018 9:39 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a LagRate-28
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File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:February 11, 2018 9:39 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a LagRate-29
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File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9:February 11, 2018 9:39 a.m.	Test Year	2019	Budget Yr	2017	Ver. 1a LagRate-30
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Philadelphia Water Department (PWD)										Test Year		Budget Yr		2017		Ver. 1a		
P.N. 135647.0100										2019		2017		2017		LagRate-31		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	FY 2019		FY 2020		FY 2021		FY 2022		
Sewer Rates										Water Rates								
Meter Size inches	Meter Code	2019		2020		2021		2022		Meter Size inches	FY 2019 Existing S/Bill	FY 2019 Proposed S/Bill	FY 2019 Existing S/Bill	FY 2020 Proposed S/Bill	FY 2019 Existing S/Bill	FY 2021 Proposed S/Bill	FY 2019 Existing S/Bill	FY 2022 Proposed S/Bill
		General Service Charge S/Bill LagRate-30	Discount Service Charge (a) S/Bill Col. (3) x (1-25%)	General Service Charge S/Bill LagRate-30	Discount Service Charge (a) S/Bill Col. (5) x (1-25%)	General Service Charge S/Bill LagRate-30	Discount Service Charge (a) S/Bill Col. (7) x (1-25%)	General Service Charge S/Bill LagRate-30	Discount Service Charge (a) S/Bill Col. (9) x (1-25%)		atb increase = 5.67%	atb increase = 5.64%	atb increase = 5.67%	atb increase = 5.64%				
5/8	R	7.20	5.40	7.58	5.69	8.03	6.02	#N/A	#N/A	5/8	6.61	6.18	6.61	6.40	6.61	6.55	6.61	#N/A
3/4	Z	9.16	6.87	9.64	7.23	10.22	7.67	#N/A	#N/A	3/4	7.59	7.13	7.59	7.37	7.59	7.53	7.59	#N/A
1	Q	13.39	10.04	14.14	10.61	14.97	11.23	#N/A	#N/A	1	10.02	9.48	10.02	9.77	10.02	9.97	10.02	#N/A
1-1/4	Y	18.80	14.10	19.88	14.91	21.03	15.77	#N/A	#N/A	1-1/4	13.03	12.41	13.03	12.74	13.03	13.00	13.03	#N/A
1-1/2	P	23.49	17.62	24.85	18.64	26.29	19.72	#N/A	#N/A	2	22.66	21.76	22.66	22.27	22.66	22.69	22.66	#N/A
2	X	36.19	27.14	38.33	28.75	40.52	30.39	#N/A	#N/A	3	38.70	37.36	38.70	38.16	38.70	38.83	38.70	#N/A
3	O	65.17	48.88	69.09	51.82	72.99	54.74	#N/A	#N/A	4	67.61	65.10	67.61	66.56	67.61	67.75	67.61	#N/A
4	W	110.83	83.12	117.44	88.08	124.10	93.08	#N/A	#N/A	6	130.56	125.96	130.56	128.66	130.56	130.95	130.56	#N/A
6	N	218.35	163.76	231.45	173.59	244.53	183.40	#N/A	#N/A	8	203.32	196.44	203.32	200.54	203.32	204.03	203.32	#N/A
8	V	345.40	259.05	366.20	274.65	386.86	290.15	#N/A	#N/A	10	295.18	285.03	295.18	291.04	295.18	296.15	295.18	#N/A
10	E	498.57	373.93	528.56	396.42	558.40	418.80	#N/A	#N/A	12	514.45	498.73	514.45	508.41	514.45	516.98	514.45	#N/A
12	T	905.54	679.16	960.64	720.48	1,014.55	760.91	#N/A	#N/A	14	0.00	0.00	0.00	541.24	0.00	550.47	0.00	#N/A
14	H	0.00	0.00	0.00	0.00	0.00	0.00	#N/A	#N/A	Monthly Water Usage								
Monthly Water Usage		Charge Per Mcf	Charge Per Mcf	Charge Per Mcf	Charge Per Mcf	Charge Per Mcf	Charge Per Mcf	Charge Per Mcf	Charge Per Mcf	S/Mcf	S/Mcf	S/Mcf	S/Mcf	S/Mcf	S/Mcf	S/Mcf	S/Mcf	S/Mcf
General Service										First 2 Mcf	43.08	43.93	43.08	45.15	43.08	46.37	43.08	48.94
Quantity Charge		31.76	23.82	33.81	25.36	35.74	26.81	#N/A	#N/A	Next 98 Mcf	37.67	37.78	37.67	38.92	37.67	40.02	37.67	41.94
										Next 1,900 Mcf	29.31	29.28	29.31	30.16	29.31	30.99	29.31	32.14
										Over 2,000 Mcf	28.51	28.48	28.51	29.34	28.51	30.15	28.51	31.14
Wastewater Surcharge		Charge S/lb	Charge S/lb	Charge S/lb	Charge S/lb	Charge S/lb	Charge S/lb	Charge S/lb	Charge S/lb									
BOD in excess of 250 mg/l		0.407		0.428		0.452		#N/A	#N/A									
SS in excess of 350 mg/l		0.398		0.417		0.443		#N/A	#N/A									
Monthly Stormwater Charge																		
SWMS Charge		14.18		15.23		16.12		#N/A	#N/A									
Billing & Collection		1.83		1.91		2.03		#N/A	#N/A									

(a) Discount rate applies to Senior Citizens and Charities.

Comparison of Typical Residential Water and Wastewater Bills Under Existing and Proposed Rates

(1)	(2)	(3) Existing Charge				(4) 2019 Charges				(10)	Water % Change	Sewer % Change	Stormwater % Change
		Water \$	Sewer \$	Stormwater \$	Total \$	Water \$	Sewer \$	Stormwater \$	Total \$				
Meter Size Inches	Monthly Use Mcf	LagRate-26	LagRate-26	LagRate-26	LagRate-31	LagRate-31	LagRate-31	LagRate-31	Increase %				
5/8	0.0	6.61	7.41	14.71	28.73	6.18	7.20	16.01	29.39	2.3	-6.51%	-2.83%	8.84%
5/8	0.2	15.23	13.90	14.71	43.84	14.97	13.55	16.01	44.53	1.6	-1.71%	-2.52%	8.84%
5/8	0.3	19.53	17.15	14.71	51.39	19.36	16.73	16.01	52.10	1.4	-0.90%	-2.45%	8.84%
5/8	0.4	23.84	20.39	14.71	58.95	23.75	19.90	16.01	59.67	1.2	-0.38%	-2.40%	8.84%
5/8	0.5	28.15	23.64	14.71	66.50	28.15	23.08	16.01	67.24	1.1	-0.02%	-2.37%	8.84%
5/8	0.6	32.46	26.89	14.71	74.05	32.54	26.26	16.01	74.80	1.0	0.25%	-2.34%	8.84%
5/8	0.7	36.77	30.13	14.71	81.61	36.93	29.43	16.01	82.37	0.9	0.45%	-2.32%	8.84%
5/8	0.8	41.07	33.38	14.71	89.16	41.32	32.61	16.01	89.94	0.9	0.61%	-2.31%	8.84%
5/8	1.7	79.85	62.59	14.71	157.15	80.86	61.19	16.01	158.06	0.6	1.27%	-2.24%	8.84%
5/8	2.7	119.14	95.05	14.71	228.90	120.49	92.95	16.01	229.45	0.2	1.13%	-2.21%	8.84%
5/8	3.3	141.74	114.53	14.71	270.98	143.15	112.01	16.01	271.17	0.1	1.00%	-2.20%	8.84%

**Comparison of Typical Water and Wastewater Bills
Under Existing and Proposed Rates**

(1)	(2)	(3) Existing Charge				(4) 2020 Charges				(5)	(6)	(7)	(8)	(9)	Water % Change	Sewer % Change	Stormwater % Change	
		Water \$	Sewer \$	Stormwater \$	Total \$	Water \$	Sewer \$	Stormwater \$	Total \$									
Meter Size Inches	Monthly Use Mcf	LagRate-26	LagRate-26	LagRate-26	LagRate-31	LagRate-31	LagRate-31	LagRate-31	Increase %									
5/8	0.0	6.61	7.41	14.71	28.73	6.40	7.58	17.14	31.12	8.3				-3.18%	2.29%	16.52%		
5/8	0.2	15.23	13.90	14.71	43.84	15.43	14.34	17.14	46.91	7.0				1.34%	3.17%	16.52%		
5/8	0.3	19.53	17.15	14.71	51.39	19.95	17.72	17.14	54.81	6.6				2.10%	3.35%	16.52%		
5/8	0.4	23.84	20.39	14.71	58.95	24.46	21.10	17.14	62.70	6.4				2.59%	3.48%	16.52%		
5/8	0.5	28.15	23.64	14.71	66.50	28.98	24.49	17.14	70.60	6.2				2.93%	3.57%	16.52%		
5/8	0.6	32.46	26.89	14.71	74.05	33.49	27.87	17.14	78.50	6.0				3.18%	3.65%	16.52%		
5/8	0.7	36.77	30.13	14.71	81.61	38.01	31.25	17.14	86.39	5.9				3.37%	3.70%	16.52%		
5/8	0.8	41.07	33.38	14.71	89.16	42.52	34.63	17.14	94.29	5.7				3.52%	3.74%	16.52%		
5/8	1.7	79.85	62.59	14.71	157.15	83.16	65.06	17.14	165.35	5.2				4.14%	3.94%	16.52%		
5/8	2.7	119.14	95.05	14.71	228.90	123.94	98.87	17.14	239.95	4.8				4.03%	4.01%	16.52%		
5/8	3.3	141.74	114.53	14.71	270.98	147.30	119.15	17.14	283.59	4.7				3.92%	4.04%	16.52%		

**Comparison of Typical Residential Water and Wastewater Bills
Under Existing and Proposed Rates**

(1)	(2)	(3) Existing Charge				(4) 2021 Charges				(11)	Water % Change	Sewer % Change	Stormwater % Change
		(5) Water \$	(6) Sewer \$	(7) Stormwater \$	(8) Total \$	(9) Water \$	(10) Sewer \$	(11) Stormwater \$	(12) Total \$				
Meter Size	Monthly Use Mcf	LagRate-26	LagRate-26	LagRate-26	LagRate-31	LagRate-31	LagRate-31	LagRate-31	Increase %				
Inches													
5/8	0.0	6.61	7.41	14.71	28.73	6.55	8.03	18.15	32.73	13.9	-0.91%	8.37%	23.39%
5/8	0.2	15.23	13.90	14.71	43.84	15.82	15.18	18.15	49.15	12.1	3.93%	9.18%	23.39%
5/8	0.3	19.53	17.15	14.71	51.39	20.46	18.75	18.15	57.36	11.6	4.75%	9.35%	23.39%
5/8	0.4	23.84	20.39	14.71	58.95	25.10	22.33	18.15	65.57	11.2	5.27%	9.47%	23.39%
5/8	0.5	28.15	23.64	14.71	66.50	29.74	25.90	18.15	73.79	11.0	5.63%	9.56%	23.39%
5/8	0.6	32.46	26.89	14.71	74.05	34.37	29.47	18.15	82.00	10.7	5.90%	9.63%	23.39%
5/8	0.7	36.77	30.13	14.71	81.61	39.01	33.05	18.15	90.21	10.5	6.10%	9.68%	23.39%
5/8	0.8	41.07	33.38	14.71	89.16	43.65	36.62	18.15	98.42	10.4	6.26%	9.72%	23.39%
5/8	1.7	79.85	62.59	14.71	157.15	85.38	68.79	18.15	172.32	9.7	6.93%	9.90%	23.39%
5/8	2.7	119.14	95.05	14.71	228.90	127.30	104.53	18.15	249.98	9.2	6.85%	9.97%	23.39%
5/8	3.3	141.74	114.53	14.71	270.98	151.32	125.97	18.15	295.44	9.0	6.76%	9.99%	23.39%

**Comparison of Typical Water and Wastewater Bills
 Under Existing and Proposed Rates**

(1)	(2)	(3) Existing Charge				(4) 2022 Charges				(5)	(6)	(7)	(8)	(9)	(10)	(11)
Meter Size Inches	Monthly Use Mcf	Water \$	Sewer \$	Stormwater \$	Total \$	Water \$	Sewer \$	Stormwater \$	Total \$	Increase %	Water % Change	Sewer % Change	Stormwater % Change			
5/8	0.0	LagRate-26 6.61	LagRate-2 7.41	14.71	28.73	LagRate-31 #N/A	LagRate-31 #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.2	15.23	13.90	14.71	43.84	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.3	19.53	17.15	14.71	51.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.4	23.84	20.39	14.71	58.95	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.5	28.15	23.64	14.71	66.50	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.6	32.46	26.89	14.71	74.05	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.7	36.77	30.13	14.71	81.61	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.8	41.07	33.38	14.71	89.16	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	1.7	79.85	62.59	14.71	157.15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	2.7	119.14	95.05	14.71	228.90	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	3.3	141.74	114.53	14.71	270.98	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

**Comparison of Typical Residential Combined Water and Wastewater Bills
Under Existing and Proposed Rates**

(1)	(2)	(3)	(4)		(5)		(6)		(7)		(8)		(9)		(10)		(11)	
			FY 2019				FY 2020				FY 2021				FY 2022			
			Meter Size Inches	Monthly Use Mcf	Existing Rates \$	Proposed Rates \$	Percent Proposed of Existing %	Proposed Rates \$	Percent Proposed of Existing %	Proposed Rates \$	Percent Proposed of Existing %	Proposed Rates \$	Percent Proposed of Existing %	Proposed Rates \$	Percent Proposed of Existing %	Proposed Rates \$	Percent Proposed of Existing %	Proposed Rates \$
		LagRate-26	28.73	29.39	2.3	31.12	8.3	32.73	13.9	#N/A	#N/A	LagRate-34						
5/8	0.0		43.84	44.53	1.6	46.91	7.0	49.15	12.1	#N/A	#N/A							
5/8	0.2		51.39	52.10	1.4	54.81	6.7	57.36	11.6	#N/A	#N/A							
5/8	0.3		58.95	59.67	1.2	62.70	6.4	65.57	11.2	#N/A	#N/A							
5/8	0.4		66.50	67.24	1.1	70.60	6.2	73.79	11.0	#N/A	#N/A							
5/8	0.5		74.05	74.80	1.0	78.50	6.0	82.00	10.7	#N/A	#N/A							
5/8	0.6		81.61	82.37	0.9	86.39	5.9	90.21	10.5	#N/A	#N/A							
5/8	0.7		89.16	89.94	0.9	94.29	5.8	98.42	10.4	#N/A	#N/A							
5/8	0.8		157.15	158.06	0.6	165.35	5.2	172.32	9.7	#N/A	#N/A							
5/8	1.7		228.90	229.45	0.2	239.95	4.8	249.98	9.2	#N/A	#N/A							
5/8	2.7		270.98	271.17	0.1	283.59	4.7	295.44	9.0	#N/A	#N/A							
5/8	3.3																	

Table C-4

Comparison of Typical Combined Water and Wastewater Bills Under Existing and Proposed Rates

(1)	(2)	(3)	(4)		(5)		(6)		(7)		(8)		(9)		(10)		(11)	
			FY 2019		FY 2020		FY 2021		FY 2022		FY 2019		FY 2020		FY 2021		FY 2022	
Meter Size	Monthly Use	Existing Rates	Proposed Rates	Percent of Existing	Proposed Rates	Percent of Proposed FY 2019	Proposed Rates	Percent of Proposed of FY 2020	Proposed Rates	Percent of Proposed of FY 2021	Proposed Rates	Percent of Proposed of FY 2022	Proposed Rates	Percent of Proposed of FY 2021	Proposed Rates	Percent of Proposed of FY 2021	Proposed Rates	Percent of Proposed of FY 2021
Inches	Mcf	\$	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
5/8	0.0	28.73	29.39	2.3	31.12	5.9	32.73	5.2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.2	43.84	44.53	1.6	46.91	5.4	49.15	4.8	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.3	51.39	52.10	1.4	54.81	5.2	57.36	4.7	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.4	58.95	59.67	1.2	62.70	5.1	65.57	4.6	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.5	66.50	67.24	1.1	70.60	5.0	73.79	4.5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.6	74.05	74.80	1.0	78.50	4.9	82.00	4.5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.7	81.61	82.37	0.9	86.39	4.9	90.21	4.4	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	0.8	89.16	89.94	0.9	94.29	4.8	98.42	4.4	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	1.7	157.15	158.06	0.6	165.35	4.6	172.32	4.2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	2.7	228.90	229.45	0.2	239.95	4.6	249.98	4.2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5/8	2.7	270.98	271.17	0.1	283.59	4.6	295.44	4.2	0.00	(100.0)								

This page uses FY 2018 billing data times COS rates.

Meter Size	Meter Code	Residential (a)(b)		Commercial		Industrial		Public Utilities		Senior Citizens (b)		Housing Authority (b)		"N" Charities (b)		"6 Cent" Charities (b)		Quantity
		Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	
		LagRate-6 x rates								LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		
5/8	R	35,388,229		2,423,174		45,274		4,147		1,384,452		447,664		76,918		2,657		5/8
3/4	Z	6,815		1,319		0		0		0		0		0		0		3/4
1	Q	527,192		442,513		39,367		4,499		241		2,748		37,831		4,096		1
1-1/4	Y	0		0		0		0		0		0		0		0		1-1/4
1-1/2	P	182,941		328,672		22,550		3,101		211		10,979		31,293		3,383		1-1/2
2	X	227,563		749,567		48,639		9,554		0		12,790		78,163		20,518		2
3	O	111,832		522,403		39,102		10,949		0		28,232		127,870		60,416		3
4	W	61,178		470,806		17,289		7,980		0		24,006		280,281		109,718		4
6	N	31,442		332,765		20,962		10,481		0		29,870		64,849		98,256		6
8	V	12,434		132,634		0		8,290		0		23,625		9,326		21,760		8
10	E	0		95,725		0		0		0		0		0		8,974		10
12	T	0		0		0		0		0		0		0		0		12
14	H	0		0		0		0		0		0		0		0		14
		36,549,628	99,873,853	5,499,579	47,530,863	233,183	2,749,898	59,000	343,411	1,384,904	2,749,126	579,914	5,013,198	706,530	4,483,805	329,779	6,927,618	
		Hand Bill		xxxxxxx		Fire Meters (b)		Scheduled (Flat Rate) (b)		yyyyyyyyy		Sewer Only		Sewer Only		Total Sewer Only		
		Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	Service Charge Billings	Volume Charge Billings	
		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		LagRate-6 x rates		
5/8	R	864		0		4,320		259		0								
3/4	Z	0		0		0		0		0								
1	Q	2,089		0		964		0		0								
1-1/4	Y	0		0		0		0		0								
1-1/2	P	2,319		0		1,128		0		0								
2	X	15,634		0		4,343		0		0								
3	O	54,743		0		782		0		0								
4	W	94,427		0		0		0		0								
6	N	60,265		0		5,240		0		0								
8	V	24,869		0		0		0		0								
10	E	17,949		0		0		0		0								
12	T	0		0		0		0		0								
14	H	0		0		0		0		0								
		273,658	13,552,341	0	0	22,097	142,920	259	762	0	0	0	2,445,520	0	2,979,900	0	5,425,420	

(a) Excludes Senior Citizens
 (b) Excludes Water Only and Wastewater Only.

File: SCOS17_19_ver9_rates.xls Philadelphia Water Department (PWD) DRAFT - For Discussion Only Test Year 2019 Budget Yr 2017 Ver. 1a
 PROPRPTS2 - Page 2 of FY 2019 Proposed Receipts Cals P.N. 135647.0100 February 11, 2018 9: February 11, 2018 9:39 a.m. LagRate-38

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Service Charge	Volume Charge	Total	Bill Tab Factors	100% of (1)+(4)	LagRate-13 11.5/12 of (2)+(4)	Total Billings	FY 2019 Receipts of FY 2019 Billings	1/2 Mo Vol Chrg @ Exst Rates Basis of Proration	Proration	Prior Year Receipts Basis of Proration	Proration	FY 2019 Receipts	FY 2019 Adjusted COS	Percent Receipts of Adjusted COS
	\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	%
Residential Excl. Sen. Cit.	36,549,628	99,873,853	136,423,481	100.00%	36,549,628	95,712,442	132,262,070	113,613,118	101,697,050	3,579,094	139,577,899	14,829,835	132,022,048	128,751,761	104.4%
Commercial	5,499,579	47,530,863	53,030,442	100.00%	5,499,579	45,550,410	51,049,989	43,851,941	48,681,112	1,713,268	53,878,202	5,724,437	51,289,645	49,917,521	108.7%
Industrial	233,183	2,749,898	2,983,081	100.00%	233,183	2,635,319	2,868,502	2,464,043	2,935,845	103,323	3,029,299	321,856	2,889,222	2,806,697	103.0%
Public Utilities	59,000	343,411	402,411	100.00%	59,000	329,102	388,102	333,379	356,508	12,547	404,938	43,024	388,950	378,958	9990.3%
Senior Citizens	1,384,904	2,749,126	4,134,030	99.97%	1,384,506	2,633,821	4,018,328	3,451,743	2,865,871	100,861	4,234,975	449,956	4,002,560	3,906,033	299.2%
Housing Authority	579,914	5,013,198	5,593,112	100.00%	579,914	4,804,315	5,384,229	4,625,053	5,031,889	177,091	5,703,691	606,004	5,408,148	5,265,172	156.0%
Charities & Schools	706,530	4,483,805	5,190,335	99.98%	706,383	4,296,085	5,002,468	4,297,120	4,357,725	153,364	5,232,022	555,890	5,006,375	4,887,788	4850.6%
Hospitals & Universities	329,779	6,927,618	7,257,397	99.98%	329,710	6,637,585	6,967,295	5,984,907	7,324,772	257,786	7,377,492	783,842	7,026,534	6,825,022	3426.0%
Hand Billed	273,658	13,552,341	13,825,999	99.98%	273,598	12,984,853	13,258,451	11,389,010	14,461,904	508,968	14,977,189	1,497,794	13,395,772	12,997,362	143.7%
xxxxxxx	0	0	0	0.00%	0	0	0	0	0	0	0	0	0	0	0
Fire Meters	22,097	142,920	165,017	100.00%	22,097	136,965	159,062	136,634	207,517	7,303	146,070	15,520	159,457	155,722	149138.7%
Scheduled	259	762	1,021	100.00%	259	730	990	850	519	18	1,046	111	980	638	153.5%
yyyyyyyyy	0	0	0	0.00%	0	0	0	0	0	0	0	0	0	0	0
Sewer Only	0	2,445,520	2,445,520	101.12%	0	2,369,842	2,369,842	2,035,694	2,713,526	95,499	2,527,382	268,529	2,399,722	2,327,733	103.1%
Groundwater	0	2,979,900	2,979,900	100.00%	0	2,855,738	2,855,738	2,453,079	2,525,390	88,878	2,505,300	266,182	2,808,139	2,908,408	96.6%
Subtotal	45,638,530	188,793,216	234,431,745		45,637,856	180,947,208	226,585,065	194,636,571	193,159,629	6,798,000	238,715,504	25,362,981	226,797,551	221,128,814	102.6%
Surcharge (COS)	5,507,593	0	5,507,593	100.0%	5,507,593		5,507,593	4,731,022			5,205,000	553,019	5,284,042	5,640,769	93.7%
Total	51,146,123	188,793,216	239,939,338		51,145,449	180,947,208	232,092,658	199,367,593			243,920,504	25,916,000	232,081,593	226,769,583	102.3%

	Receipts
Current Yr Receipts:	
85.90% of Subtotal less yyyyyyyyyy	194,636,571
Plus 100% of yyyyyyyyyy	0
Plus 85.90% of Surcharge	4,731,022
Plus 1/2 Mo Vol @ Existing Rates	LagRate-13 6,798,000
Prior Yr Receipts:	
1st Prior Year	LagRate-13 22,272,000
2nd Prior Year	LagRate-13 3,644,000
Total Receipts	232,081,593
vs LagRate-24=>	226,769,583
difference	102.3% (5,312,010)

File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 9: February 11, 2018 9:39 a.m.	Test Year 2019	Budget Yr 2017	Ver. 1a LagRate-39
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File: SCOS17_19_ver9_rates.xls		Philadelphia Water Department (PWD)				DRAFT - For Discussion Only				Test Year	2019	Budget Yr	2017	Ver. 1a	
SSERVCHGS - 2019 Components of Sewer Service Charges		P.N. 135647.0100				February 11, 2018 9: February 11, 2018 9:39 a.m.								LagRate-40	
Collection System	Stormwater Costs	Customer Costs				Industrial Waste Costs	Stormwater I/I Costs	Sanitary I/I Costs	Stormwater Direct	Total Cost	Reference	Rounding Factor	IA/GA Stormwater	Other Stormwater	Sanitary
		Meter Costs	Billing Costs	Sanitary	Stormwater										
	Equiv. Meters	Equiv. Meters	Equiv. Bills	Equiv. Bills	Equiv. Meters	Equiv. Meters	Equiv. Meters	Equiv. Meters	\$						
5/8 Inch Meter	2019 COS Service Charge	0.0000	0.6829	3.1498	0.4925				6.8734	Service-2					
	Lag + Rounding Factor	1.0469	1.0469	1.0469	1.0469				1.0469	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	0.7149	3.2975	0.5156				7.1957		(0.0017)				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	0.7149	3.2975	0.5156				7.1957						
	Total Service Charge Rounded	0.00	0.71	3.30	0.52				7.20	LagRate-31		0.00	0.00	7.20	
	Times (100%-25%) Charities Discount	0.00	0.83	2.48	0.39				5.40	LagRate-31					
3/4 Inch Meter	2019 COS Service Charge	0.0000	1.0244	3.1498	0.7388				8.7353	Service-2					
	Lag + Rounding Factor	1.0490	1.0490	1.0490	1.0490				1.0490	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	1.0746	3.3041	0.7750				9.1633		0.0004				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	1.0746	3.3041	0.7750				9.1633						
	Total Service Charge Rounded	0.00	1.07	3.30	0.78				9.16	LagRate-31		0.00	0.00	9.16	
	Times (100%-25%) Charities Discount	0.00	0.80	2.48	0.39				6.87	LagRate-31					
1 Inch Meter	2019 COS Service Charge	0.0000	1.7073	3.4648	1.2313				12.7739	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	1.7903	3.6332	1.2911				13.3947		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	1.7903	3.6332	1.2911				13.3947						
	Total Service Charge Rounded	0.00	1.79	3.63	1.29				13.39	LagRate-31		0.00	0.00	13.39	
	Times (100%-25%) Charities Discount	0.00	1.49	2.97	1.04				10.04	LagRate-31					
1-1/4 Inch Me	2019 COS Service Charge	0.0000	2.5950	3.7798	1.8715				17.9259	Service-2					
	Lag + Rounding Factor	1.0488	1.0488	1.0488	1.0488				1.0488	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	2.7216	3.9643	1.9628				18.8044		0.0002				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	2.7216	3.9643	1.9628				18.8044						
	Total Service Charge Rounded	0.00	2.72	3.96	1.96				18.80	LagRate-31		0.00	0.00	18.80	
	Times (100%-25%) Charities Discount	0.00	2.17	3.96	1.96				14.47	LagRate-31					
1-1/2 Inch Me	2019 COS Service Charge	0.0000	3.4145	3.7798	2.4625				22.9978	Service-2					
	Lag + Rounding Factor	1.0490	1.0490	1.0490	1.0490				1.0490	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	3.5817	3.9649	2.5831				23.4948		0.0004				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	3.5817	3.9649	2.5831				23.4948						
	Total Service Charge Rounded	0.00	3.58	3.96	2.58				23.49	LagRate-31		0.00	0.00	23.49	
	Times (100%-25%) Charities Discount	0.00	2.69	2.97	1.04				10.94	LagRate-31					
2 Inch Meter	2019 COS Service Charge	0.0000	5.4632	4.7247	3.9400				20.3856	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	5.7287	4.9543	4.1315				21.3763		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	5.7287	4.9543	4.1315				21.3763						
	Total Service Charge Rounded	0.00	5.73	4.95	4.13				21.38	LagRate-31		0.00	0.00	21.38	
	Times (100%-25%) Charities Discount	0.00	4.30	3.71	1.94				16.30	LagRate-31					
3 Inch Meter	2019 COS Service Charge	0.0000	10.2335	6.2996	7.3875				38.2320	Service-2					
	Lag + Rounding Factor	1.0485	1.0485	1.0485	1.0485				1.0485	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	10.7400	6.6049	7.7456				40.0757		(0.0001)				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	10.7400	6.6049	7.7456				40.0757						
	Total Service Charge Rounded	0.00	10.74	6.60	7.75				40.08	LagRate-31		0.00	0.00	40.08	
	Times (100%-25%) Charities Discount	0.00	8.06	4.95	3.81				30.88	LagRate-31				65.17	
4 Inch Meter	2019 COS Service Charge	0.0000	17.0725	12.5992	13.2125				63.0700	Service-2					
	Lag + Rounding Factor	1.0487	1.0487	1.0487	1.0487				1.0487	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	17.9039	13.2128	12.9121				66.8074		0.0001				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	17.9039	13.2128	12.9121				66.8074						
	Total Service Charge Rounded	0.00	17.90	13.21	12.91				66.81	LagRate-31		0.00	0.00	110.83	
	Times (100%-25%) Charities Discount	0.00	13.43	9.91	9.68				50.11	LagRate-31				110.83	
6 Inch Meter	2019 COS Service Charge	0.0000	34.1450	22.0486	24.6250				127.4100	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	35.8051	23.1206	25.8223				133.6047		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	35.8051	23.1206	25.8223				133.6047						
	Total Service Charge Rounded	0.00	35.81	23.12	25.82				133.60	LagRate-31		0.00	0.00	218.35	
	Times (100%-25%) Charities Discount	0.00	26.86	17.34	19.37				100.20	LagRate-31				218.35	
8 Inch Meter	2019 COS Service Charge	0.0000	54.6320	31.4980	39.4000				203.8560	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	57.2873	33.0289	41.3150				213.7640		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	57.2873	33.0289	41.3150				213.7640						
	Total Service Charge Rounded	0.00	57.29	33.03	41.32				213.76	LagRate-31		0.00	0.00	345.40	
	Times (100%-25%) Charities Discount	0.00	43.30	24.97	30.99				160.92	LagRate-31				345.40	
10 Inch Meter	2019 COS Service Charge	0.0000	78.5335	47.2470	56.6375				293.0430	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	82.3510	49.5437	59.3906				307.2878		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	82.3510	49.5437	59.3906				307.2878						
	Total Service Charge Rounded	0.00	82.35	49.54	59.39				307.29	LagRate-31		0.00	0.00	498.57	
	Times (100%-25%) Charities Discount	0.00	61.76	37.16	45.54				230.54	LagRate-31				498.57	
12 Inch Meter	2019 COS Service Charge	0.0000	146.8235	62.9960	108.8875				547.8870	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	153.9591	66.0576	111.0336				574.4891		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	153.9591	66.0576	111.0336				574.4891						
	Total Service Charge Rounded	0.00	153.96	66.06	111.03				574.49	LagRate-31		0.00	0.00	905.54	
	Times (100%-25%) Charities Discount	0.00	115.47	49.55	61.54				430.37	LagRate-31				905.54	
14 Inch Meter	2019 COS Service Charge	0.0000	153.6525	72.4454	110.8125				573.3450	Service-2					
	Lag + Rounding Factor	1.0486	1.0486	1.0486	1.0486				1.0486	LagRate-14					
	2019 Adjusted COS Service Charge	0.0000	161.1200	75.9662	116.1980				601.2096		0.0000				
	Proration of Transition Rate Adjustment	N/A							N/A						
	Total Service Charge	0.0000	161.1200	75.9662	116.1980				601.2096						
	Total Service Charge Rounded	0.00	161.12	75.97	116.20				601.21	LagRate-31		0.00	0.00	954.50	
	Times (100%-25%) Charities Discount	0.00	120.84	56.98	87.15				450.91	LagRate-31				954.50	

File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 1:February 11, 2018 1:49 p.m.	Test Year 2019	Budget Yr 2017	Ver. 1a LagRate-41
File: SCOS17_19_ver9_rates.xls XXXXXX - PAGE NOT IN USE	Philadelphia Water Department (PWD) P.N. 135647.0100	DRAFT - For Discussion Only February 11, 2018 1:February 11, 2018 1:49 p.m.	Test Year 2019	Budget Yr 2017	Ver. 1a LagRate-42

File: SCOS17_19_ver9_rates.xls	Philadelphia Water Department (PWD)	DRAFT - For Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SSERVCHGS3 - Summary of Components of Regular Sewer Service Charges	P.N. 135647.0100	February 11, 2018 9: February 11, 2018 9:39 a.m.					LagRate-43

Rate Components of Regular Sewer Service Charges

Collection System	Customer Costs				Industrial Waste Costs Equiv. Meters	Stormwater I/I Costs Equiv. Meters	Sanitary I/I Costs Equiv. Meters	Warranty Costs Equiv. Service	Total Cost \$	Reference	LAGA Stormwater	Billing & Collecting Stormwater	Sanitary Sewer
	Meter Costs Equiv. Meters	Sanitary Billing Costs Equiv. Bills	Stormwater Billing Costs Equiv. Bills										
FY 2019 Service Charges													
Regular Sewer Service Charges Detail													
5/8 Inch Meter:	0.7100	3.3000			0.5200		2.6700	0.0000	7.2000	LagRate-40			7.2000
3/4 Inch Meter:	1.0700	3.3000			0.7800		4.0100	0.0000	9.1600	LagRate-40			9.1600
1 Inch Meter:	1.7900	3.6300			1.2900		6.6800	0.0000	13.3900	LagRate-40			13.3900
1-1/4 Inch Meter:	2.7200	3.9600			1.9600		10.1600	0.0000	18.8000	LagRate-40			18.8000
1-1/2 Inch Meter:	3.5800	3.9600			2.5800		13.3700	0.0000	23.4900	LagRate-40			23.4900
2 Inch Meter:	5.7300	4.9500			4.1300		21.3800	0.0000	36.1900	LagRate-40			36.1900
3 Inch Meter:	10.7400	6.6000			7.7500		40.0800	0.0000	65.1700	LagRate-40			65.1700
4 Inch Meter:	17.9000	13.2100			12.9100		66.8100	0.0000	110.8300	LagRate-40			110.8300
6 Inch Meter:	35.8100	23.1200			25.8200		133.6000	0.0000	218.3500	LagRate-40			218.3500
8 Inch Meter:	57.2900	33.0300			41.3200		213.7600	0.0000	345.4000	LagRate-40			345.4000
10 Inch Meter:	82.3500	49.5400			59.3900		307.2900	0.0000	498.5700	LagRate-40			498.5700
12 Inch Meter:	153.9600	66.0600			111.0300		574.4900	0.0000	905.5400	LagRate-40			905.5400

Rate Components of Discount Sewer Service Charges

Collection System	Customer Costs				Industrial Waste Costs Equiv. Meters	Stormwater I/I Costs Equiv. Meters	Sanitary I/I Costs Equiv. Meters	Warranty Costs Equiv. Service	Total Cost \$	Reference	I/AGA Stormwater	Billing & Collecting Stormwater	Wastewater
	Meter Costs Equiv. Meters	Sanitary Billing Costs Equiv. Bills	Stormwater Billing Costs Equiv. Bills										
FY 2019 Service Charges													
Discount Sewer Service Charges Detail													
5/8 Inch Meter:	0.53	2.48			0.39		2.00	0.00	5.40	LagRate-40			5.40
3/4 Inch Meter:	0.80	2.48			0.59		3.01	0.00	6.88	LagRate-40			6.88
1 Inch Meter:	1.34	2.72			0.97		5.01	0.00	10.04	LagRate-40			10.04
1-1/4 Inch Meter:	2.04	2.97			1.47		7.62	0.00	14.10	LagRate-40			14.10
1-1/2 Inch Meter:	2.69	2.97			1.94		10.03	0.00	17.63	LagRate-40			17.63
2 Inch Meter:	4.30	3.71			3.10		16.04	0.00	27.15	LagRate-40			27.15
3 Inch Meter:	8.06	4.95			5.81		30.06	0.00	48.88	LagRate-40			48.88
4 Inch Meter:	13.43	9.91			9.68		50.11	0.00	83.13	LagRate-40			83.13
6 Inch Meter:	26.86	17.34			19.37		100.20	0.00	163.77	LagRate-40			163.77
8 Inch Meter:	42.97	24.77			30.99		160.32	0.00	259.05	LagRate-40			259.05
10 Inch Meter:	61.76	37.16			44.54		230.47	0.00	373.93	LagRate-40			373.93
12 Inch Meter:	115.47	49.55			83.27		430.87	0.00	679.16	LagRate-40			679.16

SCOS17_19.XLS

SWLAGRATE

The "SW LagRate" worksheet calculated projected billings and revenues under proposed stormwater rates.

<u>Range</u>	<u>Page Number</u>	<u>Description</u>
SW LagRate - 1		PROJECTED BILLABLE PARCELS
SW LagRate - 2		PROJECTED BILLABLE ACCOUNTS
SW LagRate - 3		PROJECTED BILLABLE IMPERVIOUS AREA (1000 sq ft)
SW LagRate - 4		PROJECTED BILLABLE GROSS AREA (1000 sq ft)
SW LagRate - 5		PROJECTED BILLINGS UNDER COS RATES
SW LagRate - 6		PROPOSED RATES (ADJUSTED FOR DISCOUNT RECOVERY AND LAG FACTOR)
SW LagRate - 7		PROJECTED BILLINGS UNDER PROPOSED RATES
SW LagRate - 8		STORMWATER REVENUES UNDER PROPOSED RATES-TEST YEAR 2019

PROJECTED BILLABLE PARCELS	SW LagRate - 1						
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discout							
Water & Sewer	425,574	425,137	425,137	425,137	425,137	425,137	425,137
SW Only	8,640	8,953	8,953	8,953	8,953	8,953	8,953
Discount Non-PHA							
Water & Sewer	22,989	22,679	22,679	22,679	22,679	22,679	22,679
SW Only	26	29	29	29	29	29	29
Discount PHA							
Water & Sewer	4,158	4,163	4,163	4,163	4,163	4,163	4,163
SW Only	168	166	166	166	166	166	166
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	461,555	461,127	461,127	461,127	461,127	461,127	461,127
Non-Residential							
Non-Discout							
Water & Sewer	32,685	32,737	32,737	32,737	32,737	32,737	32,737
SW Only	36,690	36,631	36,631	36,631	36,631	36,631	36,631
Discount Non-PHA							
Water & Sewer	1,850	1,854	1,854	1,854	1,854	1,854	1,854
SW Only	304	252	252	252	252	252	252
Discount PHA							
Water & Sewer	199	197	197	197	197	197	197
SW Only	1,120	1,100	1,100	1,100	1,100	1,100	1,100
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	72,848	72,771	72,771	72,771	72,771	72,771	72,771

Condominiums

Non-Discount								
Water & Sewer	1,784	1,730	1,730	1,730	1,730	1,730	1,730	1,730
SW Only	27	28	28	28	28	28	28	28
Discount Non-PHA								
Water & Sewer	47	46	46	46	46	46	46	46
SW Only	1	1	1	1	1	1	1	1
Discount PHA								
Water & Sewer	1	1	1	1	1	1	1	1
SW Only	0	0	0	0	0	0	0	0
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0	0
Subtotal	1,860	1,806	1,806	1,806	1,806	1,806	1,806	1,806
Total Billable Parcels	536,263	535,704	535,704	535,704	535,704	535,704	535,704	535,704

PROJECTED BILLABLE ACCOUNTS								SW LagRate - 2
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	
Residential								
Non-Discount								
Water & Sewer	426,953	426,492	426,492	426,492	426,492	426,492	426,492	
SW Only	8,622	8,943	8,943	8,943	8,943	8,943	8,943	
Discount Non-PHA								
Water & Sewer	23,045	22,736	22,736	22,736	22,736	22,736	22,736	
SW Only	26	29	29	29	29	29	29	
Discount PHA								
Water & Sewer	4,287	4,292	4,292	4,292	4,292	4,292	4,292	
SW Only	168	166	166	166	166	166	166	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	463,101	462,658	462,658	462,658	462,658	462,658	462,658	
Non-Residential								
Non-Discount								
Water & Sewer	38,670	38,733	38,733	38,733	38,733	38,733	38,733	
SW Only	36,432	36,512	36,512	36,512	36,512	36,512	36,512	
Discount Non-PHA								
Water & Sewer	2,618	2,630	2,630	2,630	2,630	2,630	2,630	
SW Only	304	252	252	252	252	252	252	
Discount PHA								
Water & Sewer	1,174	1,078	1,078	1,078	1,078	1,078	1,078	
SW Only	1,120	1,100	1,100	1,100	1,100	1,100	1,100	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	80,318	80,305	80,305	80,305	80,305	80,305	80,305	

Condominiums

Non-Discourt								
Water & Sewer	3,867	3,749	3,749	3,749	3,749	3,749	3,749	3,749
SW Only	29	30	30	30	30	30	30	30
Discount Non-PHA								
Water & Sewer	502	526	526	526	526	526	526	526
SW Only	1	1	1	1	1	1	1	1
Discount PHA								
Water & Sewer	1	1	1	1	1	1	1	1
SW Only	0	0	0	0	0	0	0	0
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0	0
Subtotal	4,400	4,307	4,307	4,307	4,307	4,307	4,307	4,307
Total Billable Parcels	547,819	547,270	547,270	547,270	547,270	547,270	547,270	547,270

PROJECTED BILLABLE IMPERVIOUS AREA (1000 sq ft)	SW LagRate - 3						
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	449,008	446,393	446,393	446,393	446,393	446,393	446,393
SW Only	7,270	9,401	9,401	9,401	9,401	9,401	9,401
Discount Non-PHA							
Water & Sewer	23,369	23,813	23,813	23,813	23,813	23,813	23,813
SW Only	53	30	30	30	30	30	30
Discount PHA							
Water & Sewer	2,938	4,371	4,371	4,371	4,371	4,371	4,371
SW Only	113	174	174	174	174	174	174
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	482,751	484,182	484,182	484,182	484,182	484,182	484,182
Non-Residential							
Non-Discount							
Water & Sewer	444,764	435,724	429,934	423,758	416,530	409,182	402,033
SW Only	78,119	77,057	76,100	75,043	73,761	72,429	71,088
Discount Non-PHA							
Water & Sewer	83,361	82,907	82,504	82,058	81,517	80,955	80,390
SW Only	3,221	3,264	3,252	3,239	3,223	3,206	3,189
Discount PHA							
Water & Sewer	6,618	6,320	6,320	6,320	6,320	6,320	6,320
SW Only	1,141	1,149	1,149	1,149	1,149	1,149	1,149
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	617,224	606,421	599,259	591,567	582,500	573,241	564,170

Condominiums

Non-Discourt								
Water & Sewer	17,677	16,803	16,615	16,408	16,156	15,895	15,632	
SW Only	46	164	164	164	164	164	164	
Discount Non-PHA								
Water & Sewer	562	584	564	543	517	490	463	
SW Only	21	21	21	21	21	21	21	
Discount PHA								
Water & Sewer	6	6	6	6	6	6	6	
SW Only	0	0	0	0	0	0	0	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	18,312	17,577	17,370	17,141	16,864	16,576	16,285	
Total Impervious Area	1,118,287	1,108,181	1,100,811	1,092,890	1,083,546	1,073,999	1,064,637	

PROJECTED BILLABLE GROSS AREA (1000 sq ft)	SW LagRate - 4						
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	906,407	897,037	897,037	897,037	897,037	897,037	897,037
SW Only	16,469	18,891	18,891	18,891	18,891	18,891	18,891
Discount Non-PHA							
Water & Sewer	43,993	47,853	47,853	47,853	47,853	47,853	47,853
SW Only	155	61	61	61	61	61	61
Discount PHA							
Water & Sewer	4,735	8,784	8,784	8,784	8,784	8,784	8,784
SW Only	199	350	350	350	350	350	350
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	971,958	972,976	972,976	972,976	972,976	972,976	972,976
Non-Residential							
Non-Discount							
Water & Sewer	734,210	719,060	706,346	693,379	679,602	665,794	652,254
SW Only	239,174	229,780	225,223	220,508	215,422	210,263	205,103
Discount Non-PHA							
Water & Sewer	137,713	135,360	133,470	131,514	129,405	127,265	125,125
SW Only	5,236	5,315	5,285	5,253	5,220	5,186	5,152
Discount PHA							
Water & Sewer	12,521	12,373	12,373	12,373	12,373	12,373	12,373
SW Only	4,536	4,489	4,489	4,489	4,489	4,489	4,489
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	1,133,390	1,106,377	1,087,186	1,067,516	1,046,511	1,025,370	1,004,496

Condominiums

Non-Discourt								
Water & Sewer	24,003	23,021	22,719	22,407	22,069	21,727	21,385	
SW Only	81	339	339	339	339	339	339	
Discount Non-PHA								
Water & Sewer	1,309	1,323	1,293	1,262	1,229	1,195	1,161	
SW Only	25	25	25	25	25	25	25	
Discount PHA								
Water & Sewer	9	9	9	9	9	9	9	
SW Only	0	0	0	0	0	0	0	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	25,427	24,718	24,386	24,042	23,671	23,295	22,919	

Total Gross Area	2,130,775	2,104,071	2,084,547	2,064,534	2,043,158	2,021,641	2,000,391
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Residential Billing & Collection charge \$ 1.74 Adjusted for Discount Recovery Factor
 Non Residential Billing & Collection charge \$ 2.26

Residential GA/IA charge	\$13.52	Area (sq ft)	1,000
Non Residential IA charge (\$/500 sq ft)	\$5.217		500
Non Residential GA charge (\$/500 sq ft)	\$0.690	No. of Bills	12

Senior Citizen Discount applied to category "Residential Discount Non-PHA" 25.00%
 Charities, Hospitals, Schools Discount applied to "Non-Residential Discount Non-PHA" 25.00%
 PHA Discount applied to categories "Residential and Non Residential Discount PHA" 5.00%

PROJECTED BILLINGS UNDER COS RATES **SW LagRate - 5**

Stormwater Billings (Billing & Collection)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	8,914,779	8,905,153	8,905,153	8,905,153	8,905,153	8,905,153	8,905,153
SW Only	180,027	186,730	186,730	186,730	186,730	186,730	186,730
Discount Non-PHA							
Water & Sewer	360,885	356,046	356,046	356,046	356,046	356,046	356,046
SW Only	407	454	454	454	454	454	454
Discount PHA							
Water & Sewer	85,037	85,136	85,136	85,136	85,136	85,136	85,136
SW Only	3,332	3,293	3,293	3,293	3,293	3,293	3,293
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	9,544,467	9,536,812	9,536,812	9,536,812	9,536,812	9,536,812	9,536,812
Non-Residential							
Non-Discount							
Water & Sewer	1,048,730	1,050,439	1,050,439	1,050,439	1,050,439	1,050,439	1,050,439
SW Only	988,036	990,205	990,205	990,205	990,205	990,205	990,205
Discount Non-PHA							
Water & Sewer	53,250	53,494	53,494	53,494	53,494	53,494	53,494
SW Only	6,183	5,126	5,126	5,126	5,126	5,126	5,126
Discount PHA							
Water & Sewer	30,247	27,774	27,774	27,774	27,774	27,774	27,774
SW Only	28,856	28,340	28,340	28,340	28,340	28,340	28,340
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	2,155,302	2,155,378	2,155,378	2,155,378	2,155,378	2,155,378	2,155,378

Condominiums

Non-Discourt							
Water & Sewer	104,873	101,673	101,673	101,673	101,673	101,673	101,673
SW Only	786	814	814	814	814	814	814
Discount Non-PHA							
Water & Sewer	10,211	10,699	10,699	10,699	10,699	10,699	10,699
SW Only	20	20	20	20	20	20	20
Discount PHA							
Water & Sewer	26	26	26	26	26	26	26
SW Only	0	0	0	0	0	0	0
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	115,916	113,231	113,231	113,231	113,231	113,231	113,231
Subtotal Billing & Collection Stormwater Charges							
	11,815,686	11,805,421	11,805,421	11,805,421	11,805,421	11,805,421	11,805,421
W&S	10,608,037	10,590,439	10,590,439	10,590,439	10,590,439	10,590,439	10,590,439
SW Only	1,207,649	1,214,982	1,214,982	1,214,982	1,214,982	1,214,982	1,214,982
xxxxxxxxxx	0	0	0	0	0	0	0
Total	11,815,686	11,805,421	11,805,421	11,805,421	11,805,421	11,805,421	11,805,421

Stormwater Billings (GA/IA)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	69,045,126	68,974,227	68,974,227	68,974,227	68,974,227	68,974,227	68,974,227
SW Only	1,401,754	1,452,535	1,452,535	1,452,535	1,452,535	1,452,535	1,452,535
Discount Non-PHA							
Water & Sewer	2,797,302	2,759,581	2,759,581	2,759,581	2,759,581	2,759,581	2,759,581
SW Only	3,164	3,529	3,529	3,529	3,529	3,529	3,529
Discount PHA							
Water & Sewer	640,864	641,635	641,635	641,635	641,635	641,635	641,635
SW Only	25,894	25,585	25,585	25,585	25,585	25,585	25,585
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	73,914,102	73,857,091	73,857,091	73,857,091	73,857,091	73,857,091	73,857,091
Non-Residential							
Non-Discount							
Water & Sewer	67,846,529	66,463,774	65,528,229	64,540,229	63,407,107	62,258,424	61,139,109
SW Only	13,741,802	13,453,280	13,258,034	13,047,613	12,802,885	12,550,637	12,297,337
Discount Non-PHA							
Water & Sewer	9,538,494	9,466,650	9,405,284	9,339,132	9,262,160	9,182,814	9,103,137
SW Only	367,502	372,536	371,034	369,401	367,471	365,476	363,472
Discount PHA							
Water & Sewer	984,176	946,401	946,401	946,401	946,401	946,401	946,401
SW Only	207,080	207,296	207,296	207,296	207,296	207,296	207,296
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	92,685,581	90,909,936	89,716,278	88,450,072	86,993,320	85,511,048	84,056,751

Condominiums

Non-Discout								
Water & Sewer	2,610,791	2,485,113	2,456,604	2,425,458	2,388,377	2,349,980	2,311,375	
SW Only	7,101	26,112	26,112	26,112	26,112	26,112	26,112	
Discount Non-PHA								
Water & Sewer	69,033	71,253	69,060	66,665	63,810	60,855	57,883	
SW Only	2,283	2,245	2,245	2,245	2,245	2,245	2,245	
Discount PHA								
Water & Sewer	855	880	880	880	880	880	880	
SW Only	0	0	0	0	0	0	0	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	2,690,063	2,585,603	2,554,901	2,521,360	2,481,425	2,440,071	2,398,495	
SubTotal GA/IA Stormwater Billings								
	169,289,747	167,352,629	166,128,271	164,828,523	163,331,836	161,808,210	160,312,338	
W&S	153,533,169	151,809,512	150,781,901	149,694,207	148,444,178	147,174,795	145,934,227	
SW Only	15,756,578	15,543,118	15,346,370	15,134,316	14,887,659	14,633,415	14,378,111	
xxxxxxxxxx	0	0	0	0	0	0	0	
Total	169,289,747	167,352,629	166,128,271	164,828,523	163,331,836	161,808,210	160,312,338	

SUM OF STORMWATER BILLING & COLLECTION AND GA/IA CHARGE UNDER COS RATES

Stormwater Billings (Billing & Collection & GA/IA)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	77,959,904	77,879,380	77,879,380	77,879,380	77,879,380	77,879,380	77,879,380
SW Only	1,581,781	1,639,265	1,639,265	1,639,265	1,639,265	1,639,265	1,639,265
Discount Non-PHA							
Water & Sewer	3,158,186	3,115,626	3,115,626	3,115,626	3,115,626	3,115,626	3,115,626
SW Only	3,571	3,983	3,983	3,983	3,983	3,983	3,983
Discount PHA							
Water & Sewer	725,901	726,771	726,771	726,771	726,771	726,771	726,771
SW Only	29,226	28,878	28,878	28,878	28,878	28,878	28,878
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	83,458,570	83,393,903	83,393,903	83,393,903	83,393,903	83,393,903	83,393,903
Non-Residential							
Non-Discount							
Water & Sewer	68,895,259	67,514,213	66,578,668	65,590,668	64,457,546	63,308,863	62,189,548
SW Only	14,729,837	14,443,485	14,248,239	14,037,818	13,793,091	13,540,842	13,287,543
Discount Non-PHA							
Water & Sewer	9,591,744	9,520,144	9,458,779	9,392,626	9,315,654	9,236,309	9,156,631
SW Only	373,686	377,662	376,160	374,526	372,597	370,602	368,597
Discount PHA							
Water & Sewer	1,014,423	974,174	974,174	974,174	974,174	974,174	974,174
SW Only	235,935	235,636	235,636	235,636	235,636	235,636	235,636
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	94,840,883	93,065,314	91,871,657	90,605,450	89,148,698	87,666,426	86,212,130

Condominiums

Non-Discout								
Water & Sewer	2,715,665	2,586,786	2,558,277	2,527,131	2,490,050	2,451,652	2,413,048	
SW Only	7,887	26,925	26,925	26,925	26,925	26,925	26,925	
Discount Non-PHA								
Water & Sewer	79,244	81,952	79,759	77,363	74,509	71,553	68,582	
SW Only	2,303	2,266	2,266	2,266	2,266	2,266	2,266	
Discount PHA								
Water & Sewer	881	905	905	905	905	905	905	
SW Only	0	0	0	0	0	0	0	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	2,805,979	2,698,834	2,668,133	2,634,592	2,594,656	2,553,303	2,511,727	

Total Stormwater Billings	181,105,432	179,158,051	177,933,692	176,633,944	175,137,257	173,613,631	172,117,759
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	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Billing & Collection Stormwater Charges							

Water & Sewer	10,608,037	10,590,439	10,590,439	10,590,439	10,590,439	10,590,439	10,590,439
SW Only	1,207,649	1,214,982	1,214,982	1,214,982	1,214,982	1,214,982	1,214,982
xxxxxxxxxx	0	0	0	0	0	0	0
Subtotal Billing & Collection Charges	11,815,686	11,805,421	11,805,421	11,805,421	11,805,421	11,805,421	11,805,421

Parcel Area Stormwater Charges							
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Water & Sewer	153,533,169	151,809,512	150,781,901	149,694,207	148,444,178	147,174,795	145,934,227
SW Only	15,756,578	15,543,118	15,346,370	15,134,316	14,887,659	14,633,415	14,378,111
xxxxxxxxxx	0	0	0	0	0	0	0
Subtotal Parcel Based Charges	169,289,747	167,352,629	166,128,271	164,828,523	163,331,836	161,808,210	160,312,338

PROPOSED RATES (ADJUSTED FOR DISCOUNT RECOVERY AND LAG FACTOR)

SW LagRate - 6

Residential Billing & Collection charge	\$	1.83	Adjusted for Discount Recovery & Lag Factor
Non Residential Billing & Collection charge	\$	2.38	

Residential GA/IA charge	\$14.18
Non Residential IA charge (\$/500 sq ft)	\$5.471
Non Residential GA charge (\$/500 sq ft)	\$0.723

Note Rounded the Non Residential IA/GA charge to 3 decimal places as shown in the PWD Regulations

PROJECTED BILLINGS UNDER PROPOSED RATES **SW LagRate - 7**

Stormwater Billings (Billing & Collection)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	9,375,888	9,365,764	9,365,764	9,365,764	9,365,764	9,365,764	9,365,764
SW Only	189,339	196,388	196,388	196,388	196,388	196,388	196,388
Discount Non-PHA							
Water & Sewer	379,551	374,462	374,462	374,462	374,462	374,462	374,462
SW Only	428	478	478	478	478	478	478
Discount PHA							
Water & Sewer	89,435	89,540	89,540	89,540	89,540	89,540	89,540
SW Only	3,505	3,463	3,463	3,463	3,463	3,463	3,463
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	10,038,147	10,030,095	10,030,095	10,030,095	10,030,095	10,030,095	10,030,095
Non-Residential							
Non-Discount							
Water & Sewer	1,104,415	1,106,214	1,106,214	1,106,214	1,106,214	1,106,214	1,106,214
SW Only	1,040,498	1,042,783	1,042,783	1,042,783	1,042,783	1,042,783	1,042,783
Discount Non-PHA							
Water & Sewer	56,078	56,335	56,335	56,335	56,335	56,335	56,335
SW Only	6,512	5,398	5,398	5,398	5,398	5,398	5,398
Discount PHA							
Water & Sewer	31,853	29,248	29,248	29,248	29,248	29,248	29,248
SW Only	30,388	29,845	29,845	29,845	29,845	29,845	29,845
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal Non Residential	2,269,743	2,269,823	2,269,823	2,269,823	2,269,823	2,269,823	2,269,823

Condominiums

Non-Discount								
Water & Sewer	110,442	107,071	107,071	107,071	107,071	107,071	107,071	107,071
SW Only	828	857	857	857	857	857	857	857
Discount Non-PHA								
Water & Sewer	10,753	11,267	11,267	11,267	11,267	11,267	11,267	11,267
SW Only	21	21	21	21	21	21	21	21
Discount PHA								
Water & Sewer	27	27	27	27	27	27	27	27
SW Only	0	0	0	0	0	0	0	0
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0	0
Subtotal Condominium	122,071	119,244	119,244	119,244	119,244	119,244	119,244	119,244
SubTotal Billing & Collection SW Charges (proposed)	12,429,961	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162
W&S	11,158,442	11,139,929	11,139,929	11,139,929	11,139,929	11,139,929	11,139,929	11,139,929
SW Only	1,271,519	1,279,233	1,279,233	1,279,233	1,279,233	1,279,233	1,279,233	1,279,233
xxxxxxxxxx	0	0	0	0	0	0	0	0
Subtotal Billing & Collection (Proposed Rates)	12,429,961	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162

Stormwater Billings (GA/IA) (Proposed Rates)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discout							
Water & Sewer	72,415,672	72,341,312	72,341,312	72,341,312	72,341,312	72,341,312	72,341,312
SW Only	1,470,182	1,523,442	1,523,442	1,523,442	1,523,442	1,523,442	1,523,442
Discount Non-PHA							
Water & Sewer	2,933,856	2,894,294	2,894,294	2,894,294	2,894,294	2,894,294	2,894,294
SW Only	3,318	3,701	3,701	3,701	3,701	3,701	3,701
Discount PHA							
Water & Sewer	672,149	672,957	672,957	672,957	672,957	672,957	672,957
SW Only	27,158	26,834	26,834	26,834	26,834	26,834	26,834
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	77,522,335	77,462,541	77,462,541	77,462,541	77,462,541	77,462,541	77,462,541
Non-Residential							
Non-Discout							
Water & Sewer	71,139,304	69,689,443	68,708,531	67,672,613	66,484,519	65,280,107	64,106,489
SW Only	14,407,439	14,105,003	13,900,317	13,679,718	13,423,148	13,158,692	12,893,134
Discount Non-PHA							
Water & Sewer	10,001,422	9,926,105	9,861,772	9,792,420	9,711,723	9,628,537	9,545,003
SW Only	385,339	390,617	389,042	387,329	385,306	383,215	381,113
Discount PHA							
Water & Sewer	1,031,923	992,310	992,310	992,310	992,310	992,310	992,310
SW Only	217,100	217,328	217,328	217,328	217,328	217,328	217,328
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal Non Residential	97,182,526	95,320,807	94,069,301	92,741,719	91,214,335	89,660,189	88,135,377

Condominiums

Non-Discout								
Water & Sewer	2,737,561	2,605,777	2,575,885	2,543,227	2,504,346	2,464,083	2,423,604	
SW Only	7,445	27,378	27,378	27,378	27,378	27,378	27,378	
Discount Non-PHA								
Water & Sewer	72,380	74,708	72,409	69,897	66,904	63,805	60,689	
SW Only	2,393	2,355	2,355	2,355	2,355	2,355	2,355	
Discount PHA								
Water & Sewer	897	922	922	922	922	922	922	
SW Only	0	0	0	0	0	0	0	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	2,820,677	2,711,140	2,678,949	2,643,779	2,601,905	2,558,543	2,514,948	
SubTotal GA/IA Stormwater Billings								
	177,525,538	175,494,488	174,210,791	172,848,040	171,278,781	169,681,273	168,112,866	
W&S	161,005,163	159,197,829	158,120,393	156,979,954	155,669,288	154,338,328	153,037,581	
SW Only	16,520,375	16,296,659	16,090,397	15,868,086	15,609,493	15,342,945	15,075,285	
xxxxxxxxxx	0	0	0	0	0	0	0	
Total	177,525,538	175,494,488	174,210,791	172,848,040	171,278,781	169,681,273	168,112,866	

SUM OF STORMWATER BILLING & COLLECTION AND GA/IA CHARGE UNDER PROPOSED RATES

Stormwater Billings (Billing & Collection & GA/IA)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Residential							
Non-Discount							
Water & Sewer	81,791,560	81,707,076	81,707,076	81,707,076	81,707,076	81,707,076	81,707,076
SW Only	1,659,522	1,719,831	1,719,831	1,719,831	1,719,831	1,719,831	1,719,831
Discount Non-PHA							
Water & Sewer	3,313,407	3,268,756	3,268,756	3,268,756	3,268,756	3,268,756	3,268,756
SW Only	3,746	4,179	4,179	4,179	4,179	4,179	4,179
Discount PHA							
Water & Sewer	761,584	762,497	762,497	762,497	762,497	762,497	762,497
SW Only	30,662	30,297	30,297	30,297	30,297	30,297	30,297
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	87,560,482	87,492,636	87,492,636	87,492,636	87,492,636	87,492,636	87,492,636
Non-Residential							
Non-Discount							
Water & Sewer	72,243,719	70,795,658	69,814,746	68,778,828	67,590,734	66,386,321	65,212,703
SW Only	15,447,937	15,147,786	14,943,100	14,722,501	14,465,931	14,201,475	13,935,916
Discount Non-PHA							
Water & Sewer	10,057,499	9,982,440	9,918,107	9,848,755	9,768,057	9,684,872	9,601,338
SW Only	391,851	396,015	394,440	392,727	390,704	388,613	386,511
Discount PHA							
Water & Sewer	1,063,776	1,021,559	1,021,559	1,021,559	1,021,559	1,021,559	1,021,559
SW Only	247,488	247,173	247,173	247,173	247,173	247,173	247,173
xxxxxxxxxx							
Water & Sewer	0	0	0	0	0	0	0
SW Only	0	0	0	0	0	0	0
Subtotal	99,452,269	97,590,630	96,339,124	95,011,542	93,484,158	91,930,012	90,405,200

Condominiums

Non-Discourt								
Water & Sewer	2,848,002	2,712,849	2,682,956	2,650,299	2,611,417	2,571,155	2,530,676	
SW Only	8,274	28,235	28,235	28,235	28,235	28,235	28,235	
Discount Non-PHA								
Water & Sewer	83,133	85,975	83,676	81,164	78,171	75,072	71,955	
SW Only	2,415	2,376	2,376	2,376	2,376	2,376	2,376	
Discount PHA								
Water & Sewer	924	950	950	950	950	950	950	
SW Only	0	0	0	0	0	0	0	
xxxxxxxxxx								
Water & Sewer	0	0	0	0	0	0	0	
SW Only	0	0	0	0	0	0	0	
Subtotal	2,942,748	2,830,384	2,798,193	2,763,023	2,721,149	2,677,787	2,634,192	
Total Stormwater Billings	189,955,499	187,913,650	186,629,952	185,267,201	183,697,943	182,100,435	180,532,028	
	<u>2017</u>	<u>2018</u>	##### <u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	

Billing & Collection Stormwater Charges								
Water & Sewer	11,158,442	11,139,929	11,139,929	11,139,929	11,139,929	11,139,929	11,139,929	11,139,929
SW Only	1,271,519	1,279,233	1,279,233	1,279,233	1,279,233	1,279,233	1,279,233	1,279,233
xxxxxxxxx	0	0	0	0	0	0	0	0
Subtotal Billing & Collection Charges	12,429,961	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162	12,419,162

Parcel Area Stormwater Charges							
Water & Sewer	161,005,163	159,197,829	158,120,393	156,979,954	155,669,288	154,338,328	153,037,581
SW Only	16,520,375	16,296,659	16,090,397	15,868,086	15,609,493	15,342,945	15,075,285
xxxxxxxxx	0	0	0	0	0	0	0
Subtotal Parcel Based Charges	177,525,538	175,494,488	174,210,791	172,848,040	171,278,781	169,681,273	168,112,866

STORMWATER REVENUES UNDER PROPOSED RATES-TEST YEAR 2019

SW LagRate - 8

Collection Factors	<u>TY-2</u> <u>2017</u>	<u>TY-1</u> <u>2018</u>	<u>TY</u> <u>2019</u>	
Water, Sewer	1.56%	9.08%	85.90%	1,000
SW Only	4.01%	7.69%	60.38%	
xxxxxxxxxx			100.0%	

	<u>TY-2</u> <u>2017</u>	<u>TY-1</u> <u>2018</u>	<u>TY</u> <u>2019</u>	Total Revenue
Residential				
Non-Discount				
Water & Sewer	1,127,301	6,806,186	70,186,378	78,119,865
SW Only	58,781	121,311	1,038,434	1,218,526
Discount Non-PHA				
Water & Sewer	45,666	272,280	2,807,861	3,125,807
SW Only	133	295	2,523	2,951
Discount PHA				
Water & Sewer	10,509	63,581	654,985	729,074
SW Only	1,086	2,137	18,294	21,517
xxxxxxxxxx				
Water & Sewer			0	0
SW Only			0	0
Subtotal	1,243,475	7,265,790	74,708,475	83,217,740
Non-Residential				
Non-Discount				
Water & Sewer	969,945	5,766,237	59,970,867	66,707,049
SW Only	543	1,062,225	9,022,643	10,085,411
Discount Non-PHA				
Water & Sewer	134,491	810,177	8,519,654	9,464,322
SW Only	13,532	27,299	238,163	278,994
Discount PHA				
Water & Sewer	14,361	83,537	877,519	975,417
SW Only	8,886	17,630	149,243	175,759
xxxxxxxxxx				
Water & Sewer			0	0
SW Only			0	0
Subtotal	1,141,758	7,767,106	78,778,089	87,686,953

Condominiums

Non-Discount				
Water & Sewer	38,635	222,996	2,304,659	2,566,290
SW Only	295	1,956	17,048	19,300
Discount Non-PHA				
Water & Sewer	1,167	7,285	71,878	80,329
SW Only	83	164	1,435	1,682
Discount PHA				
Water & Sewer	12	78	816	906
SW Only	0	0	0	0
xxxxxxxxxx				
Water & Sewer			0	0
SW Only			0	0
Subtotal	40,193	232,478	2,395,836	2,668,507
Total Stormwater Revenues	2,425,426	15,265,374	155,882,399	173,573,199

WCOS17_19.XLS

INDEX

Description of Worksheet:

This worksheet develops the units of service for retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
UntIndx - Index	P.N. 135647.0100	February 11, 2018 11:29 p.m.					Units-1

The "Units" worksheet develops the units of service for retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
UntIndx	Index	Units-1	
EUOS	Estimated Units of Service for Retail Water Customers	Units-2	TABLE W-11
EWB	Equivalent Water Bills	Units-3	TABLE W-12
EWM	Equivalent Water Meters	Units-4	TABLE W-12

Description of Worksheet:
 This worksheet contains water plant data for the water treatment plants. It was developed using the Fixed Asset Listing as of 6/30/2016.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PlntInd - Index	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-1
Fixed Asset Listing as of date:	6/30/2016						

The "Plant" worksheet contains water plant data for the water treatment plants. It was developed using the Fixed Asset Listing as of 6/30/2016.

Whenever this worksheet is updated to reflect a new or more current fixed asset listing (FAL), all that is required is to input new data in Plant-2 through Plant-5. Depot totals from the FAL is all that is required. for the Water Utility.

Range	Description	Page Number	Table
PlntInd	Index	Plant-1	
OC1	Page 1 of OC and Net OC as of 6/30/2016	Plant-2	
OC2	Page 2 of OC and Net OC as of 6/30/2016	Plant-3	
OC3	Page 3 of OC and Net OC as of 6/30/2016	Plant-4	
OC4	Page 4 of OC and Net OC as of 6/30/2016	Plant-5	
WP11	Page 1 of Water Plant Investment at 6/30/2016	Plant-6	
WP12	Page 2 of Water Plant Investment at 6/30/2016	Plant-7	
WPIS	Water Plant Investment	Plant-8	
LCA	Calculation of Load Control Allocation	Plant-9	
APBC	Collection System Allocation and Wholesale Rate of Return	Plant-10	
xxxxx	NOT IN USE	Plant-11	
CPA	Plant Allocations	Plant-12	
FPA	Factors for Allocation of Plant Investment to Wholesal	Plant-13	
ADE	Annual Depreciation Expense	Plant-14	
PFS	Plant File Summary for Wp1tallo	Plant-15	
PSWCPLANT1	Aqua PA Plant, Depr, and Return	Plant-16	

Description of Worksheet:

This worksheet allocates water treatment plant investment among customers classes.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
WpltInd - Index	P.N. 135647.0100	February 11, 2018 11:42 p.m.			Wpltallo-1

The "Wpltallo" worksheet allocates water treatment plant investment and annual depreciation to cost functions.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
WpltInd	Index	Wpltallo-1	
API	Allocation of Plant Investment	Wpltallo-2	TABLE W-8
ALLOCFAC1	Allocation Factors - Page 1	Wpltallo-3	
ALLOCFAC2	Allocation Factors - Page 2	Wpltallo-4	
ALLDEP	Allocation of Depreciation Expense	Wpltallo-5	TABLE W-9

Worksheet Description: This worksheet allocates Water Operation and Maintenance Expense to Functional Cost Components

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WomaInd - Index	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-1

The "Womallo" worksheet allocates Water utility operation and maintenance expense to functional cost components.

Range	Description	Page Number	Table
WomaInd	Index	Womallo-1	
TYOME	Test Year O&M Expense	Womallo-2	
OMFAC	O&M by Facility	Womallo-3	
AOMF1	Adjusted O&M by Facility - Page 1	Womallo-4	
AOMF2	Adjusted O&M by Facility - Page 2	Womallo-5	
LDCNTRL	Load Control O&M Expense	Womallo-6	
DISTSYS	Distribution System O&M Expense	Womallo-7	
XXXXX	PAGE NOT IN USE	Womallo-8	
ADMIN	Allocation of Administrative Costs	Womallo-9	
MSMM	Machine Shop & Materials Mgmt O&M	Womallo-10	
DIROM	Allocation of Direct to O&M Facility	Womallo-11	
ADHR	Administrative & Human Resources O&M	Womallo-12	
xxxxx	NOT IN USE	Womallo-13	
ATOM	Allocation of Total O&M Expense	Womallo-14	
xxxxx	NOT IN USE	Womallo-15	
OMALLO	Allocation of O&M Expense - Table	Womallo-16	TABLE W-10
ATACC	Allocated Treatment & Conveyance Costs	Womallo-17	
PSWCOMAL	Aqua PA Allocated O&M	Womallo-18	

Description of Worksheet:
 This worksheet allocates the retail cost of service to retail customer classes.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RetInd - Index	P.N. 135647.0100	February 11, 2018 11:50 p.m.			Retcos-1

The "Retcos" worksheet develops unit costs of service and allocates the retail cost of service among retail customer types. It also develops wholesale cost of service water rates for Bucks County and Aqua PA.

Range	Description	Page Number	Table
RetInd	Index	Retcos-1	
UCOS	Unit Cost of Service	Retcos-2	TABLE W-14
ACOS	Allocated Cost of Service to Customer Types	Retcos-3	TABLE W-15
ADJCOS	Adjusted Cost of Service to Customer Types	Retcos-4	TABLE W-16
BCPC	Bucks County Proposed Charges	Retcos-5	
PSWCRate	Aqua PA Proposed Rates	Retcos-6	TABLE W-13A

Description of Worksheet:
 This worksheet develops retail water volume COS rates.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RatesInd - Index	P.N. 135647.0100	February 11, 2018 11:54 p.m.					Rates-1

The "Rates" worksheet develops retail cost of service rates before recognizing billing lag and rate implementation refinements.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
RatesInd	Index	Rates-1	
ADJC	Adjusted COS by Class	Rates-2	
COSR	COS Rates	Rates-3	
BILLCOS	Billings Under COS Rates	Rates-4	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
LagInd - Index	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-1

The "LagRate" worksheet refines cost of service rates to recognize billing lag and rate implementation refinements and develops proposed Water utility rates for the test year and two following years.

Range	Description	Page Number	Table
LagInd	Index	LagRate-1	
RATES	Existing and COS Rates	LagRate-2	
PBAC	Projected Bills, Accounts, and Consumption	LagRate-3	
PWR	Projected Water Receipts	LagRate-4	
BER	Test Year Billings Under Existing Rates	LagRate-5	
BPR	Projected Billings Under Proposed Rates	LagRate-6	
SBPR	Summary of Projected Billings Under Proposed Rates	LagRate-7	
RWL	Calculation of Receipts with Lag	LagRate-8	
TYRWL	Test Year Retail Receipts with Lag	LagRate-9	
COSWL	Inflated COS Rates to Account for Lag	LagRate-10	
REVCOMP	Comparison of Revenue Under Exist. Rates to COS	LagRate-11	TABLE W-17
CPRATES	Water & Wastewater Proposed Rates	LagRate-12	
WPRATES	Water Proposed Rates	LagRate-13	TABLE W-18 and TABLE W-19
BTAB	BillTab Billing Percentages	LagRate-14	
WSERVCHG	Components of Water Service Charges	LagRate-15	
WSERVCHG	Summary of Components Water Service Charges	LagRate-16	

WCOS17_19.XLS

UNITS

Description of Worksheet:

This worksheet develops the units of service for retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
UntIndx - Index	P.N. 135647.0100	February 11, 2018 11:29 p.m.					Units-1

The "Units" worksheet develops the units of service for retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
UntIndx	Index	Units-1	
EUOS	Estimated Units of Service for Retail Water Customers	Units-2	TABLE W-11
EWB	Equivalent Water Bills	Units-3	TABLE W-12
EWM	Equivalent Water Meters	Units-4	TABLE W-12

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
EUOS - Estimated Units of Service for Retail Water Customers	P.N. 135647.0100	February 11, 2018 11:29 p.m.					Units-2

References: Financial Planning Model - Customer

TABLE W-11
ESTIMATED UNITS OF SERVICE FOR RETAIL WATER CUSTOMERS
TEST YEAR 2019

Line No.	Customer Class	(1) Total Test Year Water Use Mcf Ref. A	(2) Average Daily Water Use Mcf/day (1) / 365	(3) Maximum Day Extra Capacity		(4) Maximum Hour Extra Capacity		(5) Customer Cost			(11) Percent Distribution of General Service		
				(6) Capacity Factor %	(7) Total Capacity Mcf/day (2) x (3) / 100	(8) Extra Capacity (a) Mcf/day (4) - (2)	(9) Capacity Factor %	(10) Total Capacity Mcf/day (2) x (6) / 100	(11) Extra Capacity (b) Mcf/day (7) - (4)	Equiv. Meters Units-4		Equiv. Bills Units-3	Equiv. Services Units-4
1	Residential	3,158,500	8,650	200	17,300	8,650	360	31,140	13,840	442,037	5,022,020	417,539	90.39%
2	Senior Citizens	115,500	320	200	640	320	360	1,150	510	21,405	256,680	21,391	
3	Commercial (c)	1,531,100	4,190	180	7,540	3,350	265	11,100	3,560	108,383	512,963	36,474	9.23%
4	Industrial	93,100	260	160	420	160	200	520	100	5,582	17,992	1,143	0.32%
5	Public Utilities	10,800	30	160	50	20	200	60	10	1,295	2,971	141	0.05%
6	Total General Service (c)	4,909,000	13,450	193	25,950	12,500	327	43,970	18,020	578,702	5,812,626	476,687	100.00%
7	Housing Authority	166,200	460	190	870	410	313	1,440	570	9,241	73,024	5,738	
8	Charities & Schools	189,200	520	180	940	420	270	1,400	460	20,369	52,800	2,254	
9	Hospital/University	290,900	800	180	1,440	640	233	1,860	420	11,327	20,570	235	
10	Charities and Schools	480,100	1,320	180	2,380	1,060	247	3,260	880	31,696	73,370	2,489	
11	Hand Billed	554,400	1,520	180	2,740	1,220	270	4,100	1,360	6,417	11	0	
12	xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0	
13	Scheduled (Flat Rate)	0	0	200	0	0	360	0	0	3	36	3	
14	xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0	
15	Fire Protection Public		0		980	980		2,550	1,570				
16	Private	11,400	30		160	130		370	210	3,412	298,089	0	
17	Total Retail Customers	6,121,100	16,780	197	33,080	16,300	332	55,690	22,610	629,471	6,257,156	484,917	

(a) Capacity in excess of average daily use.
 (b) Capacity in excess of maximum day.
 (c) Includes City and City Leased properties.

Mcf - thousand cubic feet

Line No.	Customer Class	Total Test Year Water Use Mcf	Average Daily Water Use Mcf/day	Capacity Factor %	Total Capacity Mcf/day	Capacity Factor %	Total Capacity Mcf/day
1	Retail Demand Excluding Fire Protection	6,109,700	16,750	191	31,940	315	52,770
2	Wholesale (Aqua PA)	100,000	274	240	658	439	1,203 Womallo-17
3	PWD Facilities	300,000	822	160	1,315	200	1,644
4	Subtotal Metered Demand	6,509,700	17,846		33,913		55,617
5	Estimated Non-Revenue Water based on % of System Metered Demand		12,401	100	12,401	100	12,401
6	Estimated Total System Non-Coincidental Demand		30,247	153	46,314	225	68,018
7	System Coincidental Demand Peaking Factor			140	Wpitallo-3	190	Wpitallo-4
8	Diversity Factor			1.09		1.18	
	Estimated System Losses	41.0%	Reflects FY 2016 and FY 2015 two year average (Water Audit Data). NOTE: The average is the same for the 3-year average (FY 14 - FY 16)				

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
EWB - Equivalent Water Bills	P.N. 135647.0100	February 11, 2018 11:29 p.m.					Units-3

References: Financial Plan Model - Customer-1 and Assumptions-41

Line No.	Customer Class	Total Number of Bills	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"	
	Equivalent Bill Factor		1.0	1.0	1.1	1.2	1.2	1.5	2.0	4.0	7.0	10.0	15.0	20.0	23.0	
	GENERAL SERVICE															
	Residential (excluding Senior Citizens)															
1	Bills	4,996,452	4,930,188	756	41,652	0	8,136	11,400	1,872	1,080	996	336	24	12		
2	Equivalent Bills	5,022,020	4,930,188	756	45,817	0	9,763	17,100	3,744	4,320	6,972	3,360	360	240		
	Senior Citizens															
3	Bills	256,668	256,608	0	36	0	12	12	0	0	0	0	0	0		
4	Equivalent Bills	256,680	256,608	0	40	0	14	18	0	0	0	0	0	0		
	Commercial															
5	Bills	427,524	337,812	168	33,480	0	14,244	21,804	8,244	5,940	4,044	1,440	312	36		
6	Equivalent Bills	512,963	337,812	168	36,828	0	17,093	32,706	16,488	23,760	28,308	14,400	4,680	720		
	Industrial															
7	Bills	12,888	6,336	0	2,964	0	972	1,404	624	228	252	84	24	0		
8	Equivalent Bills	17,992	6,336	0	3,260	0	1,166	2,106	1,248	912	1,764	840	360	0		
	Public Utilities															
9	Bills	1,656	576	0	348	0	132	276	168	72	48	24	0	12		
10	Equivalent Bills	2,971	576	0	383	0	158	414	336	288	336	240	0	240		
	Total Gen'l Service Bills Incl SC															
10	Bills	5,695,188	5,531,520	924	78,480	0	23,496	34,896	10,908	7,320	5,340	1,884	360	60		
11	Equivalent Bills	5,812,626	5,531,520	924	86,328	0	28,194	52,344	21,816	29,280	37,380	18,840	5,400	1,200		
	ALL OTHER THAN GENERAL SERVICE															
	Housing Authority															
12	Bills	68,772	65,496	0	804	0	492	900	456	288	240	96	0	0		
13	Equivalent Bills	73,024	65,496	0	884	0	590	1,350	912	1,152	1,680	960	0	0		
	Charities & Schools															
14	Bills	30,276	14,472	0	3,816	0	1,812	2,952	2,652	3,504	864	180	24	0		
15	Equivalent Bills	52,800	14,472	0	4,198	0	2,174	4,428	5,304	14,016	6,048	1,800	360	0		
	Hospital/University															
16	Bills	5,916	540	0	420	0	192	756	1,248	1,488	1,068	156	48	0		
17	Equivalent Bills	20,570	540	0	462	0	230	1,134	2,496	5,952	7,476	1,560	720	0		
	Hand Billed															
18	Bills	3,168	132	0	156	0	120	432	852	864	420	144	48	0		
19	Equivalent Bills	11,356	132	0	172	0	144	648	1,704	3,456	2,940	1,440	720	0		
	xxxxxxxxxx															
20	Bills	0	0	0	0	0	0	0	0	0	0	0	0	0		
21	Equivalent Bills	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Scheduled (Flat Rate)															
22	Bills	36	36	0	0	0	0	0	0	0	0	0	0	0		
23	Equivalent Bills	36	36	0	0	0	0	0	0	0	0	0	0	0		
	xxxxxxxxxx															
24	Bills	0	0	0	0	0	0	0	0	0	0	0	0	0		
25	Equivalent Bills	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Private Fire Connections & Fire Meters															
26	Bills	85,464	497	264	9,530	0	1,500	15,256	1,424	8,697	13,481	4,385	600	110		
27	Equivalent Bills	298,089	1,988	1,056	38,120	0	6,000	61,024	5,696	34,788	94,367	43,850	9,000	2,200		
			Equivalent Bills - 4" and less based on 4" ratio (consistent with basis of the private fire charges)													
	Total															
28	Bills	5,888,820	5,612,693	1,188	93,206	0	27,612	55,192	17,540	22,161	21,413	6,845	1,080	170		
29	Equivalent Bills	6,268,501	5,614,184	1,980	130,164	0	37,332	120,928	37,928	88,644	149,891	68,450	16,200	3,400		

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)				DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a		
EWM - Equivalent Water Meters		P.N. 135647.0100				February 11, 2018 11:29 p.m.						Units-4		
Line No.	Total Number of Meters	5/8	3/4	1	1 1/4	1 1/2	2	3	4	6	8	10	12	14
	Equivalent Meter Factor (Capacity)	1.0	1.5	2.5	3.8	5.0	8.0	15.0	25.0	50.0	80.0	115.0	215.0	225.0
	Equivalent Meter Factor (Service)	1.0	1.0	1.1	1.2	1.2	2.1	10.0	12.0	15.0	19.0	25.0	28.0	
GENERAL SERVICE														
Residential (excluding Senior Citizens)														
1	Meters	416,371	410,849	63	3,471	0	678	950	156	90	83	28	2	1
2	Equivalent Meters	442,037	410,849	95	8,678	0	3,390	7,600	2,340	2,250	4,150	2,240	230	215
3	Equivalent Service	417,539	410,849	63	3,818	0	814	1,995	0	0	0	0	0	0
Senior Citizens														
4	Meters	21,389	21,384	0	3	0	1	1	0	0	0	0	0	0
5	Equivalent Meters	21,405	21,384	0	8	0	5	8	0	0	0	0	0	0
6	Equivalent Service	21,391	21,384	0	3	0	1	2	0	0	0	0	0	0
Commercial														
7	Meters	35,627	28,151	14	2,790	0	1,187	1,817	687	495	337	120	26	3
8	Equivalent Meters	108,383	28,151	21	6,975	0	5,935	14,536	10,305	12,375	16,850	9,600	2,990	645
9	Equivalent Service	36,474	28,151	14	3,069	0	1,424	3,816	0	0	0	0	0	0
Industrial														
10	Meters	1,074	528	0	247	0	81	117	52	19	21	7	2	0
11	Equivalent Meters	5,582	528	0	618	0	405	936	780	475	1,050	560	230	0
12	Equivalent Service	1,143	528	0	272	0	97	246	0	0	0	0	0	0
Public Utilities														
13	Meters	138	48	0	29	0	11	23	14	6	4	2	0	1
14	Equivalent Meters	1,295	48	0	73	0	55	184	210	150	200	160	0	215
15	Equivalent Service	141	48	0	32	0	13	48	0	0	0	0	0	0
Total Gen'l Service Mtrs. Incl SC														
16	Meters	474,599	460,960	77	6,540	0	1,958	2,908	909	610	445	157	30	5
17	Equivalent Meters	578,702	460,960	116	16,352	0	9,790	23,264	13,635	15,250	22,250	12,560	3,450	1,075
18	Equivalent Service	476,687	460,960	77	7,194	0	2,350	6,107	0	0	0	0	0	0
ALL OTHER THAN GENERAL SERVICE														
Housing Authority														
19	Meters	5,731	5,458	0	67	0	41	75	38	24	20	8	0	0
20	Equivalent Meters	9,241	5,458	0	168	0	205	600	570	600	1,000	640	0	0
21	Equivalent Service	5,738	5,458	0	74	0	49	158	0	0	0	0	0	0
Charities & Schools														
22	Meters	2,523	1,206	0	318	0	151	246	221	292	72	15	2	0
23	Equivalent Meters	20,369	1,206	0	795	0	755	1,968	3,315	7,300	3,600	1,200	230	0
24	Equivalent Service	2,254	1,206	0	350	0	181	517	0	0	0	0	0	0
Hospital/University														
25	Meters	493	45	0	35	0	16	63	104	124	89	13	4	0
26	Equivalent Meters	11,327	45	0	88	0	80	504	1,560	3,100	4,450	1,040	460	0
27	Equivalent Service	235	45	0	39	0	19	132	0	0	0	0	0	0
Hand Billed														
24	Meters	264	11	0	13	0	10	36	71	72	35	12	4	0
25	Equivalent Meters	6,417	11	0	33	0	50	288	1,065	1,800	1,750	960	460	0
26	Equivalent Service	113	11	0	14	0	12	76	0	0	0	0	0	0
xxxxxxxxxx														
28	Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Equivalent Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
30	Equivalent Service	0	0	0	0	0	0	0	0	0	0	0	0	0
Scheduled (Flat Rate)														
31	Meters	3	3	0	0	0	0	0	0	0	0	0	0	0
32	Equivalent Meters	3	3	0	0	0	0	0	0	0	0	0	0	0
33	Equivalent Service	3	3	0	0	0	0	0	0	0	0	0	0	0

	xxxxxxx													
34	Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Equivalent Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Equivalent Service	0	0	0	0	0	0	0	0	0	0	0	0	0
	Private Fire Connections													
37	Meters	4,644	41	22	794	0	125	1,271	119	725	1,123	365	50	9
38	Equivalent Meters (5/8")	170,460	1,025	550	19,850	0	3,125	31,775	2,975	18,125	56,150	29,200	5,750	1,935
39	Equivalent Meters (6")	3,412	21	11	397	0	63	636	60	363	1,123	584	115	39
	Equivalent Meters - 4" and less based on 4" meter ratio (consistent with basis of the private fire charges)													
	Total													
40	Meters	488,257	467,724	99	7,767	0	2,301	4,599	1,462	1,847	1,784	570	90	14
41	Equivalent Meters (5/8")	796,519	468,708	666	37,286	0	14,005	58,399	23,120	46,175	89,200	45,600	10,350	3,010

WCOS17_19.XLS

PLANT

Description of Worksheet:
 This worksheet contains water plant data for the water treatment plants. It was developed using the Fixed Asset Listing as of 6/30/2016.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PlntInd - Index	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-1
Fixed Asset Listing as of date:	6/30/2016						

The "Plant" worksheet contains water plant data for the water treatment plants. It was developed using the Fixed Asset Listing as of 6/30/2016.

Whenever this worksheet is updated to reflect a new or more current fixed asset listing (FAL), all that is required is to input new data in Plant-2 through Plant-5. Depot totals from the FAL is all that is required. for the Water Utility.

Range	Description	Page Number	Table
PlntInd	Index	Plant-1	
OC1	Page 1 of OC and Net OC as of 6/30/2016	Plant-2	
OC2	Page 2 of OC and Net OC as of 6/30/2016	Plant-3	
OC3	Page 3 of OC and Net OC as of 6/30/2016	Plant-4	
OC4	Page 4 of OC and Net OC as of 6/30/2016	Plant-5	
WP11	Page 1 of Water Plant Investment at 6/30/2016	Plant-6	
WP12	Page 2 of Water Plant Investment at 6/30/2016	Plant-7	
WPIS	Water Plant Investment	Plant-8	
LCA	Calculation of Load Control Allocation	Plant-9	
APBC	Collection System Allocation and Wholesale Rate of Return	Plant-10	
xxxxx	NOT IN USE	Plant-11	
CPA	Plant Allocations	Plant-12	
FPA	Factors for Allocation of Plant Investment to Wholesal	Plant-13	
ADE	Annual Depreciation Expense	Plant-14	
PFS	Plant File Summary for Wp1tallo	Plant-15	
PSWCPLANT1	Aqua PA Plant, Depr, and Return	Plant-16	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
OC1 - Page 1 of OC and Net OC as of 6/30/2016	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-2

Assets data from Fixed Asset Listing. See Summary data input on Scratch - Sewer Model Input Worksheet.

Location (Depot)		Net Original Cost \$
SOURCE OF SUPPLY PLANT		
39	Struc. & Imprvmts-Fairmount Water Works	
39	Equip.-Fairmount Water Works	
	Total Fairmount Water Works	6,452,435
	Total Source of Supply Plant	6,452,435
RAW WATER PUMPING PLANT		
1	Struc. & Imprvmts-Belmont RWPS	
1	Equip.-Belmont RWPS	
1	Struc. & Imprvmts-Belmont RWPS, 36RW-Main	
	Total Belmont RWPS	4,109,039
6	Struc. & Imprvmts-Queen Lane RWPS	
6	Equip.-Queen Lane RWPS	
6	Struc. & Imprvmts-Queen Lane RWPS, Mains	
	Total Queen Lane RWPS	10,390,045
17	Struc. & Imprvmts-Torresdale RWPS	
17	Equip.-Torresdale RWPS	
17	Struc. & Imprvmts-Torresdale RWPS, Mains	
	Total Torresdale RWPS	4,566,890
	Total Raw Water Pumping Plant	19,065,975

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
OC2 - Page 2 of OC and Net OC as of 6/30/2016	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-3

The values on this page were extracted from the Fixed Asset Listing for 6/30/2016. They do not include any consideration of CWIP at 6/30/2016 or any capital program additions after 6/30/2016. Detail showing structures & improvements, equipment, and mains investment can only be estimated from the Fixed Asset printout. Since that detail is not needed for analyses in this file, only the totals for each Fixed Asset depot number are shown below.

Location (Depot)		Net Original Cost \$
TREATED WATER PUMPING PLANT		
26	Struc. & Imprvmts-East Park FWPS	
26	Equip.-East Park FWPS	
26	Struc. & Imprvmts-East Park FWPS, Mains	
	Total East Park FWPS	1,803,899
22	Struc. & Imprvmts-Foxchase FWPS	
22	Equip.-Foxchase FWPS	
22	Struc. & Imprvmts-Foxchase FWPS, Mains	
	Total Foxchase FWPS	5,870,747
23	Struc. & Imprvmts-Oak Lane FWPS	
23	Equip.-Oak Lane FWPS	
	Total Oak Lane FWPS	330,456
11	Struc. & Imprvmts-Roxborough HS FWPS	
11	Equip.-Roxborough HS FWPS	
	Total Roxborough HS FWPS	3,263,404
30	Struc. & Imprvmts-West Oak Lane FWPS	
30	Equip.-West Oak Lane FWPS	
	Total West Oak Lane FWPS	676,862
18	Struc. & Imprvmts-Torresdale FWPS	
18	Equip.-Torresdale FWPS	
18	Struc. & Imprvmts-Torresdale FWPS, Mains	
	Total Torresdale FWPS	11,140,083
19	Struc. & Imprvmts-Torresdale HS FWPS	
19	Equip.-Torresdale HS FWPS	
	Total Torresdale HS FWPS	4,338,807
25	Struc. & Imprvmts-Lardner's Point FWPS	
25	Equip.-Lardner's Point FWPS	
25	Struc. & Imprvmts-Lardner's Point FWPS, Mains	
	Total Lardner's Point FWPS	3,567,758
2	Struc. & Imprvmts-Belmont FWPS	
2	Equip.-Belmont FWPS	
	Total Belmont FWPS	13,626,901
7	Struc. & Imprvmts-Queen Lane HS FWPS	
7	Equip.-Queen Lane HS FWPS	
	Total Queen Lane HS FWPS	24,092,792
5	Struc. & Imprvmts-HS to Roxborough Expressway	
5	Equip.-HS to Roxborough Expressway	
	Total HS to Roxborough Expressway	398,929
	Total Treated Water Pumping Plant	69,110,637

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
OC3 - Page 3 of OC and Net OC as of 6/30/2016	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-4

The values on this page were extracted from the Fixed Asset Listing for 6/30/2016. They do not include any consideration of CWIP at 6/30/2016 or any capital program additions after 6/30/2016. Detail showing structures & improvements, equipment, and mains investment can only be estimated from the Fixed Asset printout. Since that detail is not needed for analyses in this file, only the totals for each Fixed Asset depot number are shown below.

Location (Depot)		Net Original Cost \$	
HIGH PRESSURE FIRE PUMPING PLANT			
28	Struc. & Imprvmts-Race Street HP PS		High Pressure Fire System was decommissioned.
28	Equip.-Race Street HP PS		
28	Struc. & Imprvmts-Race Street HP PS, Mains		
	Total Race Street HP PS	0	
29	Struc. & Imprvmts-Fairhill HP PS		
29	Equip.-Fairhill HP PS		
	Total Fairhill HP PS	7,299	
	Total High Pressure Fire Pumping Plant	7,299	
WATER PURIFICATION AND TREATMENT PLANT			
3	Struc. & Imprvmts-Belmont Filters		
3	Equip.-Belmont Filters		
	Total Belmont Filters	91,182,496	
13	Struc. & Imprvmts-Lower Roxborough Filters		
13	Equip.-Lower Roxborough Filters		
	Total Lower Roxborough Filters	60,654	
12	Struc. & Imprvmts-Upper Roxborough Filters		
12	Equip.-Upper Roxborough Filters		
	Total Upper Roxborough Filters	4,573,664	
8	Struc. & Imprvmts-Queen Lane Filters		
8	Equip.-Queen Lane Filters		
8	Struc. & Imprvmts-Queen Lane Filters, Mains		
	Total Queen Land Filters	104,651,484	
20	Struc. & Imprvmts-Baxter Filters		
20	Equip.-Baxter Filters		
	Total Baxter Filters	182,108,739	
	Total Water Purification and Treatment Plant	382,577,036	
TRANSMISSION & DISTRIBUTION PLANT			
1,000	Struc. & Imprvmts-Mains	791,614,494	
24	Struc. & Imprvmts-Oak Lane Reservoir		
24	Equip.-Oak Lane Reservoir		
	Total Oak Lane Reservoir	8,266,807	
27	Struc. & Imprvmts-East Park Reservoir		
27	Equip.-East Park Reservoir		
	Total East Park Reservoir	16,026,185	
80	Struc. & Imprvmts-Somerton Tanks		
80	Equip.-Somerton Tanks		
	Total Somerton Tanks	4,474,130	
	Total Transmission & Distribution Plant	820,381,617	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
OC4 - Page 4 of OC and Net OC as of 6/30/2016	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-5

The values on this page were extracted from the Fixed Asset Listing for 6/30/2016. They do not include any consideration of CWIP at 6/30/2016 or any capital program additions after 6/30/2016. Detail showing structures & improvements, equipment, and mains investment can only be estimated from the Fixed Asset printout. Since that detail is not needed for analyses in this file, only the totals for each Fixed Asset depot number are shown below.

Location (Depot)	Description	Net Original Cost \$		
ADMINISTRATIVE & GENERAL PLANT				
0	Undetermined Location			
	Total Undetermined Location (a)	92,459,689		
31	Struc. & Imprvmts-Load Control Center			
31	Equip.-Load Control Center			
	Total Load Control Center	4,532,698		
32	Struc. & Imprvmts-Distribution			
32	Equip.-Distribution			
	Total Distribution	24,169,240		
33	Struc. & Imprvmts-Automotive Garage			
33	Equip.-Automotive Garage			
	Total Automotive Garage	5,180,248		
34	Struc. & Imprvmts-ARA Towers			
34	Equip.-ARA Towers			
	Total ARA Towers	3,457,915		
35	Struc. & Imprvmts-Design			
35	Equip.-Design			
	Total Design Related	701,399		
36	Struc. & Imprvmts-Testing Laboratory			
36	Equip.-Testing Laboratory			
	Total Testing Laboratory	0		
40	Struc. & Imprvmts-Meter Shop			
40	Equip.-Meter Shop			
	Total Meter Shop	2,336,252		
45	Struc. & Imprvmts-Building Maintenance			
45	Equip.-Building Maintenance			
	Total Building Maintenance	5,970,958		
47	Struc. & Imprvmts-Central Stores			
47	Equip.-Central Stores			
	Total Central Stores	509,870		
49	Struc. & Imprvmts-IBM Unit 29th & Cambia			
49	Equip.-IBM Unit 29th & Cambia			
	Total IBM Unit 29th & Cambil	529,038		
42	Struc. & Imprvmts-Auto Repair Facility			
42	Equip.-Auto Repair Facility			
	Total Auto Repair Facility	991,083		
43	Struc. & Imprvmts-Centralized Laboratory			
43	Equip.-Centralized Laboratory			
	Total Centralized Laboratory	21,068,073		
44	Struc. & Imprvmts-Repair Shop			
44	Equip.-Repair Shop			
	Total Repair Shop	563,016		
	Total Administrative & General Plant	161,768,080	Excludes Depot 35	
	Total Water and Administrative & General Plant	1,460,064,477	Comparable total from SCOS file	
				Difference = 0

(a) Consists of other costs that cannot be assigned to other depots, such as fringe benefits, gas mains, general engineering, etc.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
WPI1 - Page 1 of Water Plant Investment at 6/30/2016	P.N. 135647.0100	February 11, 2018 11:36 p.m.			Plant-6

Reference: Fixed Asset Listing

Line No.	Description	Depot No.	Land \$	Not Used \$	Not Used \$	Total Building & Related \$	Total \$
							(2) + (5)
Source of Supply:							
1	Fairmount Water Works (a)	39	150,000			6,452,435	6,602,435
2	Manayunk Canal	81	50,000				50,000
3	Subtotal		200,000			6,452,435	6,652,435
Raw Water							
4	Belmont	1	12,200			4,109,039	4,121,239
5	Queen Lane	6	19,239			10,390,045	10,409,284
6	Torresdale	17				4,566,890	4,566,890
7	Torresdale Intake Conduit						0
8	Torresdale Raw Water Basin						0
9							
10	Subtotal		31,439			19,065,975	19,097,414
Treated Water							
11	East Park	26	3,000			1,803,899	1,806,899
12	Foxchase	22	5,000			5,870,747	5,875,747
13	Oak Lane	23				330,456	330,456
14	Roxborough High Service	11				3,263,404	3,263,404
15	West Oak Lane	30	16,614			676,862	693,476
16	Torresdale Low Service (BOX 1)	18				8,368,138	8,368,138
17	Torresdale High Service (BOX 1)	19				7,110,752	7,110,752
18	Lardner's Point	25	45,000			3,567,758	3,612,758
19	Belmont High Service	2				13,626,901	13,626,901
20	Queen Lane High Service	7				24,092,792	24,092,792
21	Roxborough Exp. High Service	5				398,929	398,929
22	Chestnut Hill	14	1,000				1,000
23	Subtotal		70,614			69,110,637	69,181,251
High Pressure Fire							
24	Race Street	28	0			0	0
25	Fairhill	29	0			7,299	7,299
26	Subtotal		0			7,299	7,299
Purification & Treatment							
27	Belmont Filters	3	273,443			91,182,496	91,455,939
28	Lower Roxborough Filters	13	2,500			60,654	63,154
29	Upper Roxborough Filters	12	63,000			4,573,664	4,636,664
30	Queen Lane Filters	8	677,180			104,651,484	105,328,664
31	Torresdale Filters/Baxter Filters	20	309,000			182,108,739	182,417,739
32	Belmont Control Center	48					0
33	Subtotal		1,325,123			382,577,036	383,902,159

BOX 1-Split of Total Torresdale Low & High Service Depots Investment to Low & High Service

Depot 19 only includes investment for the Torresdale high service F.W.P.S. reservoir. It is assumed the pumping & related investment associated with Depot 19 is included in Depot 18 (Torresdale F.W.P.S.) investment. Because the description of investment in Depot 18 is not sufficient to determine which investment is associated with high and low service, prorate the investment in Depot 18 between Torresdale high service and low service on the basis of the pump capacities of each.

	Investment \$		Pump Capacities mgd
Depot 18 (Low Service)	11,140,083	Plant-3	160
Depot 19 (High Service)	4,338,807	Plant-3	53
Total	15,478,890		213

Proration of Depot 18 investment to low and high service:

Low Service	\$11,140,083*(160/213)= \$	8,368,138
High Service	\$11,140,083*(53/213)= \$	2,771,945

Total Torresdale Investment Split Between Low and High Service:

	Depot 18 \$	Depot 19 \$	Total \$
Low Service	8,368,138		8,368,138
High Service	2,771,945	4,338,807	7,110,752
Total	11,140,083	4,338,807	15,478,890

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. Ia
WPI2 - Page 2 of Water Plant Investment at 6/30/2016	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-7

Reference: Fixed Asset Listing

Line No.	Description	Depot No.	(1) Land \$	(2) Not Used \$	(3) Not Used \$	(4) Not Used \$	(5) Total Building & Related \$	(6) Total \$
34	Transmission & Distribution - Mains Mains-Total						791,175,870	791,175,870
35	Transmission & Distribution - Other							
35	Oak Lane Reservoir	24	64,776				8,266,807	8,331,583
36	East Park Reservoir	27	100,000				16,026,185	16,126,185
37	Somerton Tanks	80	17,000				4,474,130	4,491,130
38	Deepwell Transfer (b)					7,655	7,655	7,655
39	Roxborough Tanks (b)					1,382	1,382	1,382
40	Filtered Water Storage (b)					39,587	39,587	39,587
41	George Hill Reservoir (b)					390,000	390,000	390,000
42	Meters (c)					27,777,986	27,777,986	27,777,986
43	Hydrants					9,200,000	9,200,000	9,200,000
44	Subtotal		181,776				66,183,733	66,365,509
BOX 2 - SPLIT OF A&G PLANT BETWEEN WATER AND SEWER								
Admin. & General								
45	Undetermined Location	0					46,229,845	46,229,845
46	Load Control Center	31					4,532,698	4,532,698
47	Distribution	32	65,470				24,169,240	24,169,240
48	Logan Street Garage	33	25,800				2,227,507	2,227,507
49	MSB 11th Floor ARA Towers	34					1,728,957	1,728,957
50	Design Branch	35					392,784	392,784
51	Testing Laboratory	36					0	0
52	Research & Development	37					0	0
53	Survey & Construction	38					0	0
54	Meter Shop	40					1,168,126	1,168,126
55	Customer Service	41					0	0
56	Centralized Laboratory	43					10,534,037	10,534,037
57	Plant Maintenance/Repair Shop	44					213,946	213,946
58	Building Maintenance	45					5,672,410	5,672,410
59	Central Stores	47					254,935	254,935
60	IBM Unit	49					264,519	264,519
61	N.E. Corner Fox and Roberts	42	113,355				376,612	489,967
62	Subtotal		204,625				97,765,616	97,970,241
63	TOTAL		2,013,577				1,432,338,600	1,434,352,177

(1)	(2)	(3)	(4)	(5)	(6)
Land	Total Building & Related	Percent Water	Water Allocated Land	Water - Total Building & Related	Sewer - Total Building & Related
\$	\$	\$	\$	\$	\$
Ref. Prior Study	Ref. B	WG-1.3	(1)*(3)	(2)*(3)	(1)+(2)-(4)-(5)
0	92,459,689	50.00%	0	46,229,845	46,229,844
31	4,532,698	100.00%	0	4,532,698	(0)
32	24,169,240	100.00%	65,470	24,169,240	(0)
33	2,253,307	43.00%	25,800	2,227,507	2,986,941
34	1,728,957	50.00%	0	1,728,957	1,728,958
35	392,784	56.00%	0	392,784	308,615
36	0	38.00%	0	0	0
37	0	38.00%	0	0	0
38	0	56.00%	0	0	0
40	1,168,126	50.00%	0	1,168,126	1,168,126
41	0	50.00%	0	0	0
43	10,534,037	50.00%	0	10,534,037	10,534,036
44	213,946	38.00%	0	213,946	349,070
45	5,672,410	95.00%	0	5,672,410	298,548
47	254,935	50.00%	0	254,935	254,935
49	264,519	50.00%	0	264,519	264,519
42	489,967	38.00%	113,355	376,612	799,419
	423,773		204,625	97,765,616	64,923,011
TOTAL A&G (\$423,773 + \$162,469,479)			162,893,252		
TOTAL A&G ALLOCATED TO WATER			97,970,241		
TOTAL A&G ALLOCATED TO SEWER (\$162,893,252 - \$97,970,241)			64,923,011		

Notes:
 (a) Land valued at \$ 150,000 From previous study (no change in value of Land Assets per CAFR)
 (b) Currently included in Depot 0 - Water T&D Other (1/19/2008).
 (c) Meters and radios assets obtained from Meters and other improvements.xls file provided by PWD.

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)			DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
WPIS - Water Plant Investment		P.N. 135647.0100			February 11, 2018 11:36 p.m.						
Reference:											
Line No.	Description	(1)	(2)	(3)	(4)	(5)	(6)	(7)			
		Land	Buildings, Improvements & Equipment	Total Plant Investment @6/30/2016	Allocated Load Control	Estimated Capitalized Interest	Plant Additions	Total Plant @6/30/2016			
		\$	\$	\$	\$	\$	\$	\$			
		Plant-6	Plant-6	(1)+(2)	Plant-9						
Source of Supply:											
1	Fairmount Water Works (a)	150,000	6,452,435	6,602,435				6,602,435			
2	Manayunk Canal (a)	50,000	0	50,000				50,000			
3	Total	200,000	6,452,435	6,652,435				6,652,435			
Power & Pumping:											
Raw Water											
4	Belmont	12,200	4,109,039	4,121,239				4,121,239			
5	Queen Lane	19,239	10,390,045	10,409,284				10,409,284			
6	Torresdale	0	4,566,890	4,566,890				4,566,890			
7	Torresdale Intake Conduit	0	0	0				0			
8	Torresdale Raw Water Basin	0	0	0				0			
9	Total	31,439	19,065,975	19,097,414				19,097,414			
Treated Water											
10	East Park	3,000	1,803,899	1,806,899	176,562			1,983,461			
11	Foxchase	5,000	5,870,747	5,875,747	55,794			5,931,541			
12	Oak Lane	0	330,456	330,456	123,593			454,049			
13	Roxborough High Service	0	3,263,404	3,263,404	105,937			3,369,341			
14	West Oak Lane	16,614	676,862	693,476	61,797			755,272			
15	Torresdale Low Service	0	8,368,138	8,368,138	564,998			8,933,136			
16	Torresdale High Service	0	7,110,752	7,110,752	187,156			7,297,907			
17	Lardner's Point	45,000	3,567,758	3,612,758	706,248			4,319,006			
18	Belmont High Service	0	13,626,901	13,626,901	111,234			13,738,135			
19	Queen Lane High Service	0	24,092,792	24,092,792	84,750			24,177,542			
20	Roxborough Exp. High Service	0	398,929	398,929	88,281			487,210			
21	Chestnut Hill	1,000	0	1,000				1,000			
22	Total	70,614	69,110,637	69,181,251	2,266,349			71,447,600			
High Pressure Fire											
23	Race Street	0	0	0				0			
24	Fairhill	0	7,299	7,299				7,299			
25	Total	0	7,299	7,299				7,299			
Purification & Treatment											
26	Belmont Filters	273,443	91,182,496	91,455,939				91,455,939			
27	Lower Roxborough Filters	2,500	60,654	63,154				63,154			
28	Upper Roxborough Filters	63,000	4,573,664	4,636,664				4,636,664			
29	Queen Lane Filters	677,180	104,651,484	105,328,664				105,328,664			
30	Torresdale Filters	309,000	182,108,739	182,417,739				182,417,739			
31	Belmont Control Center	0	0	0				0			
32	Total	1,325,123	382,577,036	383,902,159				383,902,159			
Transmission & Distribution - Mains											
33	Mains-Total	0	791,175,870	791,175,870	2,266,349			793,442,219			
Transmission & Distribution - Other											
34	Oak Lane Reservoir	64,776	8,266,807	8,331,583				8,331,583			
35	East Park Reservoir	100,000	16,026,185	16,126,185				16,126,185			
36	Somerton Tanks	17,000	4,474,130	4,491,130				4,491,130			
37	Deepwell Transfer	0	7,655	7,655				7,655			
38	Roxborough Tanks	0	1,382	1,382				1,382			
39	Filtered Water Storage	0	39,587	39,587				39,587			
40	George Hill Reservoir	0	390,000	390,000				390,000			
41	Meters	0	27,777,986	27,777,986				27,777,986			
42	Fire Hydrants	0	9,200,000	9,200,000				9,200,000			
43	Total	181,776	66,183,733	66,365,509				66,365,509			

44	Load Control Center		4,532,698	4,532,698	(4,532,698)	0
45	Administration & General	<u>204,625</u>	<u>93,232,918</u>	<u>93,437,543</u>		<u>93,437,543</u>
46	TOTAL	2,013,577	1,432,338,600	1,434,352,177	0	1,434,352,177
	Check with Plant-7	2,013,577	1,432,338,600	1,434,352,177		1,434,352,177
						(1) through (6)

(a) Plant investment shown here is considered to be NOT used & useful. Fairmount Water Works is an historic landmark, and the land for Manayunk Canal is not used.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
LCA - Calculation of Load Control Allocation	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-9

Reference: A. FN-12.3

	(1)	(2)
	<u>Capacity</u>	<u>% of Capacity</u>
	Ref. A	
TREATMENT:		
Torresdale Treatment Plant Capacity L.S.(mgd)	160.0	24.9%
Torresdale Treatment Plant Capacity H.S.(mgd)	53.0	8.3%
Queen Lane Treatment Plant Capacity H.S.(mgd)	24.0	3.7%
Belmont Treatment Plant Capacity H.S.(mgd)	31.5	4.9%
Lardners Point Capacity (mgd)	200.0	31.2%
BOOSTER PUMPING:		
East Park Capacity (mgd)	50.0	7.8%
Fox Chase Capacity (mgd)	15.8	2.5%
Oak Lane Capacity (mgd)	35.0	5.5%
Roxborough H.S. Capacity (mgd)	30.0	4.7%
West Oak Lane Capacity (mgd)	17.5	2.7%
Roxborough Exp. H.S. Capacity (mgd)	25.0	3.9%
Total System Capacity	641.8	100.0%

	<u>Amount</u>	<u>% Load Control (a)</u>
	\$	
ALLOCATION OF LOAD CONTROL INVESTMENT:		
TREATMENT:		
Torresdale Treatment Plant L.S.	564,998	12.5%
Torresdale Treatment Plant H.S.	187,156	4.1%
Queen Lane Treatment Plant H.S.	84,750	1.9%
Belmont Treatment Plant H.S.	111,234	2.5%
Lardners Point	706,248	15.6%
BOOSTER PUMPING:		
East Park	176,562	3.9%
Fox Chase	55,794	1.2%
Oak Lane	123,593	2.7%
Roxborough H.S.	105,937	2.3%
West Oak Lane	61,797	1.4%
Roxborough Exp. H.S.	88,281	1.9%
Total Pumping	2,266,349	50.0%
Transmission & Distribution	2,266,349	50.0%
Total Load Control Investment (a) WPIS.	4,532,698	100.0%

(a) Load Control Investment spread back between Pumping & Transmission with 50.0% to each - Pumping is spread further based on % Plant Capacity in pumping. This percent split discussed with JRM 6/30/92 - Assume OK for now. Source of percent is previous study.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
APBC - Collection System Allocation and Wholesale Rate of Return	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-10

INPUT DATA FROM PWD_Water_Pipe Size Summary.xlsx

Percentage of Total Mains.....

16" and larger	0.355
18" and larger	0.315
24" and larger	0.268
30" and larger	0.232
36" and larger	0.186
48" and larger	0.149

Outside City Return:	7.50%
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File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
xxxxx - NOT IN USE	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-11

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017
CPA - Plant Allocations	P.N. 135647.0100	February 11, 2018 11:36 p.m.				

References: B. (Plant-10) Percent split of water main investment between diff. size mains.

Line No.	Description	(1) Total Investment \$	Aqua PA			
			(2) Allocated Investment to Aqua PA \$	(3) Cap. Cost to Aqua PA \$	(4) Return on Plant Investment @ 7.50% \$	(5) Annual Depr. Expense \$
	Supply and Treatment	Plant-8&Ref B	Plant-16		Plant-16	Plant-16
	Raw Water Power & Pumping					
1	Land	31,439	361	27	27	0
2	Buildings & Equipment	19,065,975	219,017	20,919	16,426	4,493
	Treatment					
	Purification					
3	Land	1,325,123	23,056	1,729	1,729	0
4	Buildings & Equipment	382,577,036	6,656,560	649,716	499,242	150,474
	Treated Water Power & Pumping					
5	Land	45,000	783	59	59	0
6	Buildings & Equipment	58,907,936	1,024,955	97,371	76,872	20,499
7	Total Supply and Treatment	461,952,509	7,924,732	769,821	594,355	175,466
	Distribution					
	Booster Pumping					
8	Land	25,614	379	28	28	0
9	Buildings & Equipment	12,469,050	184,568	17,293	13,843	3,450
	Filtered Water Storage					
10	Land	181,776	3,163	237	237	0
11	Buildings & Equipment	29,205,747	508,159	56,801	38,112	18,689
	High Pressure Fire System					
12	Land	0	0	0	0	0
13	Buildings & Equipment	7,299	0	0	0	0
	Transmission & Distribution Mains					
14	Small Mains (Less than 24")	580,441,365	0	0	0	0
15	Large Mains (24" & Over) (b)	213,000,854	3,706,059	346,984	277,954	69,030
16	Fire Hydrants	9,200,000	0	0	0	0
17	Meters	27,777,986	0	0	0	0
18	Total Distribution	872,309,690	4,402,328	421,343	330,174	91,169
	Administrative and General (a)					
19	Land	204,625	1,891	142	142	0
20	Buildings & Equipment	93,232,918	861,366	89,582	64,602	24,980
21	Total Administrative and General	93,437,543	863,257	89,724	64,744	24,980
22	TOTAL INVESTMENT	1,427,699,742	13,190,317	1,280,888	989,273	291,615

(a) Administrative and General allocated based on subtotals of Lines 7 & 18.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
FPA - Factors for Allocation of Plant Investment to Wholesale	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-13

References: A. Series 1998 Bonds OS

Line No.	Description	Total Capacity of Facility mgd Ref. A	Aqua PA Contract Capacity mgd	Aqua PA Contract Capacity %
Source of Supply:				
1	Fairmount Water Works			
2	Manayunk Canal			
3	Total	0.00		
Power & Pumping:				
Raw Water				
4	Belmont	140.00		
5	Queen Lane	207.00		
6	Torresdale/Baxter	480.00		
7	Torresdale Intake Conduit			
8	Torresdale Raw Water Basin			
9	Total	827.00	9.50	1.15%
Treated Water				
10	East Park	50.00		
11	Foxchase	15.80		
12	Oak Lane (East)	35.00		
13	Roxborough High Service	30.00		
14	West Oak Lane	17.50		
15	Torresdale/Baxter Low Service	160.00		
16	Torresdale/Baxter High Service	53.00		
17	Lardner's Point	200.00		
18	Belmont High Service	31.50		
19	Queen Lane High Service	24.00		
20	Q. Ln. Roxborough Exp. High Serv	25.00		
21	Total	641.80	9.50	1.48%
High Pressure Fire				
22	Race Street			
23	Fairhill			
24	Total	0.00		
Purification & Treatment:				
25	Belmont Filters	86.00		
26	Lower Roxborough Filters			
27	Upper Roxborough Filters			
28	Queen Lane Filters	140.00		
29	Torresdale/Baxter Filters	320.00		
30	Treatment Headquarters			
31	Belmont Control Center			
32	Total	546.00	9.50	1.74%
Transmission & Distribution - Mains:				
33	Small Mains (24" & smaller)			
34	Large Mains (Over 24")			
Transmission & Distribution - Other:				
35	Oak Lane Reservoir	70.00		
36	East Park Reservoir	370.00		
37	Somerton Tanks	10.00		
38	Deepwell Transfer			
39	Roxborough Tanks	17.60		
40	Filtered Water Storage			
41	George Hill Reservoir			
42	Meters			
43	Total	467.60	9.50	2.03%
44	Load Control Center		9.50	
45	Administration & General		9.50	
46	TOTAL			

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)			DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
ADE - Annual Depreciation Expense		P.N. 135647.0100			February 11, 2018 11:36 p.m.						Plant-14
Line No.	Description	(1) Total Plant Investment \$	(2) Land \$	(3) Depreciable Plant \$	(4) Depr. Rate (b)	(5) Annual Depr. Expense \$					
		Plant-8	Plant-8	(1)-(2)		(3)*(4)					
Source of Supply:											
1	Fairmount Water Works (a)	6,602,435	150,000	6,452,435	2.5%	161,311					
2	Manayunk Canal (a)	50,000	50,000	0	2.5%	0					
3	Total	6,652,435	200,000	6,452,435	2.5%	161,311					
Power & Pumping:											
Raw Water											
4	Belmont	4,121,239	12,200	4,109,039	1.9%	79,995					
5	Queen Lane	10,409,284	19,239	10,390,045	2.0%	203,427					
6	Torresdale	4,566,890	0	4,566,890	2.4%	107,724					
7	Torresdale Intake Conduit	0	0	0	2.4%	0					
8	Torresdale Raw Water Basin	0	0	0	2.4%	0					
9	Total	19,097,414	31,439	19,065,975	2.1%	391,146					
Treated Water											
10	East Park	1,983,461	3,000	1,980,461	2.0%	39,609					
11	Foxchase	5,931,541	5,000	5,926,541	1.7%	102,257					
12	Oak Lane	454,049	0	454,049	2.0%	9,081					
13	Roxborough High Service	3,369,341	0	3,369,341	2.0%	67,387					
14	West Oak Lane	755,272	16,614	738,658	2.0%	14,773					
15	Torresdale Low Service	8,933,136	0	8,933,136	2.0%	178,663					
16	Torresdale High Service	7,297,907	0	7,297,907	2.0%	145,958					
17	Lardner's Point	4,319,006	45,000	4,274,006	2.0%	85,480					
18	Belmont High Service	13,738,135	0	13,738,135	2.0%	274,763					
19	Queen Lane High Service	24,177,542	0	24,177,542	2.0%	483,551					
20	Roxborough Exp. High Service	487,210	0	487,210	2.0%	9,744					
21	Chestnut Hill	1,000	1,000	0	2.0%	0					
22	Total	71,447,600	70,614	71,376,986	2.0%	1,411,266					
High Pressure Fire											
23	Race Street	0	0	0	1.1%	0					
24	Fairhill	7,299	0	7,299	1.8%	133					
25	Total	7,299	0	7,299	1.8%	133					
Purification & Treatment											
26	Belmont Filters	91,455,939	273,443	91,182,496	2.7%	2,503,324					
27	Lower Roxborough Filters	63,154	2,500	60,654	2.9%	1,733					
28	Upper Roxborough Filters	4,636,664	63,000	4,573,664	2.8%	129,169					
29	Queen Lane Filters	105,328,664	677,180	104,651,484	2.5%	2,637,950					
30	Torresdale Filters	182,417,739	309,000	182,108,739	1.9%	3,376,114					
31	Belmont Control Center	0	0	0	2.5%	0					
32	Total	383,902,159	1,325,123	382,577,036	2.3%	8,648,290					
Transmission & Distribution - Mains											
33	Mains-Total	793,442,219	0	793,442,219	1.9%	14,778,858					
Transmission & Distribution - Other											
35	Oak Lane Reservoir	8,331,583	64,776	8,266,807	4.1%	337,658					
36	East Park Reservoir	16,126,185	100,000	16,026,185	4.0%	643,291					
37	Somerton Tanks	4,491,130	17,000	4,474,130	1.8%	82,199					
38	Deepwell Transfer	7,655	0	7,655	2.5%	191					
39	Roxborough Tanks	1,382	0	1,382	2.5%	35					
40	Filtered Water Storage	39,587	0	39,587	2.5%	990					
41	George Hill Reservoir	390,000	0	390,000	2.5%	9,750					
42	Meters	27,777,986	0	27,777,986	7.0%	1,944,459					
43	Fire Hydrants	9,200,000	0	9,200,000	2.5%	230,000					
44	Total	66,365,509	181,776	66,183,733	4.9%	3,248,573					
						3.7%	<== Excludes Meters & Hydrants				

45	Load Control Center	0	0		
	Administration & General				
	Undetermined Location	46,229,845	46,229,845	2.5%	1,155,746
	All Other	47,207,698	47,003,073	3.3%	1,545,038
46	Total Administration & General	93,437,543	93,232,918	2.9%	2,700,784
47	TOTAL	1,434,352,177	1,432,338,600	2.2%	31,340,361
	Check with column (1) - (2)		1,432,338,600		

(a) Plant investment not included as used & useful.

(b) Depreciation rates in this column were extracted from file Wrcl.d.wk4 of file Philly\31416100\CamdenNJ\OC. Rates in that file are based on the Fixed Asset Listing as of 6/30/97.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PFS - Plant File Summary for Wpjtallo	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-15

Line No.	Description	(1)	(2)	Aqua PA			
		Est. Test Yr. Plant Investment \$	Total Test Yr. Depr. Expense \$	Test Yr. Plant Investment \$	Test Yr. Capital Cost \$	Test Yr. Return on Plant \$	Test Yr. Depr. Expense \$
Raw Water Supply and Pumping							
Source of Supply							
1	Land	200,000					
2	Buildings and Equipment	6,452,435	161,311				
Power and Pumping							
3	Land	31,439		361	27	27	0
4	Buildings and Equipment	19,065,975	391,146	219,017	20,919	16,426	4,493
5	Total Raw Water Supply and Pumping	25,749,848	552,457	219,378	20,946	16,453	4,493
Purification and Treatment							
Power and Pumping (a)							
6	Land	70,614		1,162	87	87	0
7	Buildings and Equipment	71,376,986	1,411,266	1,209,523	114,664	90,715	23,949
Treatment							
8	Land	1,325,123		23,056	1,729	1,729	0
9	Buildings and Equipment	382,577,036	8,648,290	6,656,560	649,716	499,242	150,474
10	Total Purification and Treatment	455,349,759	10,059,556	7,890,302	766,196	591,773	174,423
Transmission and Distribution							
11	Mains	793,442,219	14,778,858	3,706,059	346,984	277,954	69,030
12	Meters	27,777,986	1,944,459		0		
13	Hydrants	9,200,000	230,000		0		
Filtered Water Storage							
14	Land	181,776		3,163	237	237	0
15	Buildings and Equipment	29,205,747	1,074,114	508,159	56,801	38,112	18,689
High Pressure Fire System							
16	Land	0			0		
17	Mains 0.0000 of Mains	0	0				
18	Buildings and Equipment	7,299	133		0		
19	Total Transmission and Distributor	859,815,027	18,027,564	4,217,380	404,022	316,303	87,719
20	Total excluding Administrative and General	1,340,914,634	28,639,577	12,327,060	1,191,164	924,529	266,635
Administrative and General							
21	Land	204,625		1,891	142	142	0
22	Buildings and Equipment	93,232,918	2,700,784	861,366	89,582	64,602	24,980
23	Total Administrative and General	93,437,543	2,700,784	863,257	89,724	64,744	24,980
24	Total Water Plant Investment	1,434,352,177	31,340,361	13,190,317	1,280,888	989,273	291,615

Agrees with BOX 1 within \$1,000

(a) Includes booster pumping

BOX 1		
Booked Original Cost	Plant-5	1,460,064,477
Land	Plant-14	2,013,577
Meters	Plant-14	27,777,986
Fire Hydrants	Plant-14	9,200,000
Other Additions	Plant-14	0
Sewer Allocated A&G Less Land		
Sewer Allocated A&G Incl. Land	64,923,011	Plant-7
Less A&G Land (Water & Sewer)	(423,773)	Plant-7
Plus Water Allocated Land	204,625	Plant-7
Sewer Allocated A&G Less Land	(64,703,863)	
Total Water Plant Investment		1,434,352,177

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PSWCPLANT - Aqua PA Plant, Depr. and Return	P.N. 135647.0100	February 11, 2018 11:36 p.m.					Plant-16

Aqua PA Maximum Day [Plant-13](#) 9.5 mgd

Water Plant Investment
Allocation of Water Plant Investment to Functional Cost Component

Line No.	Estimated Test Period	Plant Investment \$ Plant-8	Aqua PA Direct \$ Plant-13	Return on Plant Invest. @ 7.50% \$	Annual Depreciation Expense \$ Plant-11	CHECKS	
						Rate Base Allocation	Depr Rate
	Source of Supply						
1	Land	200,000				0.00%	
2	Buildings and Equipment	6,452,435				0.00%	
	Power and Pumping						
	Raw Water Power & Pumping						
3	Land	31,439	361	27		1.15%	0.00%
4	Buildings & Equipment	19,065,975	219,017	16,426	4,493	1.15%	2.05%
	Treatment						
	Purification						
5	Land	1,325,123	23,056	1,729		1.74%	0.00%
6	Buildings & Equipment	382,577,036	6,656,560	499,242	150,474	1.74%	2.26%
	Treated Water Power & Pumping						
7	Land	45,000	783	59		1.74%	0.00%
8	Buildings & Equipment	58,907,936	1,024,955	76,872	20,499	1.74%	2.00%
9	Total Supply and Treatment	461,952,509	7,924,732	594,355	175,466	1.72%	2.21%
	Distribution						
	Booster Pumping						
10	Land	25,614	379	28		1.48%	0.00%
11	Buildings & Equipment	12,469,050	184,568	13,843	3,450	1.48%	1.87%
	Filtered Water Storage						
12	Land	181,776	3,163	237		1.74%	0.00%
13	Buildings & Equipment	29,205,747	508,159	38,112	18,689	1.74%	3.68%
	High Pressure Fire System						
14	Land	0				NA	
15	Buildings & Equipment	7,299				0.00%	
	Transmission & Distribution Mains						
16	Small Mains (Less than 24")	580,441,365				0.00%	
17	Large Mains (24" & Over)	213,000,854	3,706,059	277,954	69,030	1.74%	1.86%
18	Fire Hydrants	9,200,000				0.00%	
19	Meters	27,777,986				0.00%	
20	Total Distribution	872,309,690	4,402,328	330,174	91,169	0.50%	2.07%
	Administrative and General (a)						
21	Land	204,625	1,891	142		0.92%	0.00%
22	Buildings & Equipment	93,232,918	861,366	64,602	24,980	0.92%	2.90%
23	Total Administrative and General	93,437,543	863,257	64,744	24,980	0.92%	2.89%
24	TOTAL INVESTMENT	1,427,699,742	13,190,317	989,273	291,615	0.92%	2.21%
	Return @ 7.50%		989,274			1,281,000	

WCOS17_19.XLS

WPLTALLO

Description of Worksheet:

This worksheet allocates water treatment plant investment among customers classes.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
WpltInd - Index	P.N. 135647.0100	February 11, 2018 11:42 p.m.			Wpltallo-1

The "Wpltallo" worksheet allocates water treatment plant investment and annual depreciation to cost functions.

<u>Range</u>	<u>Description</u>	<u>Page Number</u>	<u>Table</u>
WpltInd	Index	Wpltallo-1	
API	Allocation of Plant Investment	Wpltallo-2	TABLE W-8
ALLOCFAC1	Allocation Factors - Page 1	Wpltallo-3	
ALLOCFAC2	Allocation Factors - Page 2	Wpltallo-4	
ALLDEP	Allocation of Depreciation Expense	Wpltallo-5	TABLE W-9

TABLE W-8

ALLOCATION OF TEST YEAR WATER PLANT INVESTMENT
TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2019

Line No.	Description	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Allocation Basis: Wp1tallo-3			Aqua PA
		Estimated Test Year Plant Investment \$	Base \$	Maximum Day \$	Maximum Hour In Excess of Maximum Day \$	Customer Meters \$	Public Fire Protection - Direct Standard Pressure \$	Public Fire Protection - Direct High Pressure \$	Wholesale Direct \$	Base	Max Day	Max Hour	
		Plant-15							Plant-15				
	Raw Water Supply and Pumping												
	Source of Supply												
1	Land	200,000	200,000							100%			
2	Buildings and Equipment	6,452,000	6,452,000							100%			
	Power and Pumping												
3	Land	31,000	22,000	9,000				0		71%	29%		0
4	Buildings and Equipment	19,066,000	13,381,000	5,466,000				219,000		71%	29%		219,000
5	Total Raw Water Supply and Pumping	25,749,000	20,055,000	5,475,000				219,000					219,000
	Purification and Treatment												
	Power and Pumping (a)												
6	Land	71,000	37,000	9,000	24,000			1,000		53%	13%	34%	1,000
7	Buildings and Equipment	71,377,000	37,189,000	9,122,000	23,856,000			1,210,000		53%	13%	34%	1,210,000
	Treatment												
8	Land	1,325,000	924,000	378,000				23,000		71%	29%		23,000
9	Buildings and Equipment	382,577,000	266,903,000	109,017,000				6,657,000		71%	29%		6,657,000
10	Total Purification and Treatment	455,350,000	305,053,000	118,526,000	23,880,000			7,891,000					7,891,000
	Transmission and Distribution												
11	Mains	793,442,000	418,560,000	102,666,000	268,510,000			3,706,000		53%	13%	34%	3,706,000
12	Meters	27,778,000				27,778,000		0		100%			0
13	Hydrants	9,200,000					9,200,000	0		100%			0
	Filtered Water Storage												
14	Land	182,000	95,000	23,000	61,000			3,000		53%	13%	34%	3,000
15	Buildings and Equipment	29,206,000	15,210,000	3,731,000	9,757,000			508,000		53%	13%	34%	508,000
	High Pressure Fire System (b)												
16	Land	0						0		100%			0
17	Mains	0						0		100%			0
18	Buildings and Equipment	7,000						7,000		100%			0
19	Total Transmission and Distribution	859,815,000	433,865,000	106,420,000	278,328,000	27,778,000	9,200,000	7,000	4,217,000				4,217,000
20	Subtotal	1,340,914,000	758,973,000	230,421,000	302,208,000	27,778,000	9,200,000	7,000	12,327,000				12,327,000
	Administrative and General												
21	Land	205,000	117,000	35,000	46,000	4,000	1,000	0	2,000				2,000
22	Buildings and Equipment	93,233,000	52,770,000	16,020,000	21,011,000	1,931,000	640,000	0	861,000				861,000
23	Total Administrative and General	93,438,000	52,887,000	16,055,000	21,057,000	1,935,000	641,000	0	863,000				863,000
24	Total Water Plant Investment	1,434,352,000	811,860,000	246,476,000	323,265,000	29,713,000	9,841,000	7,000	13,190,000				13,190,000
			56.6%	17.2%	22.5%	2.1%	0.7%	0.0%	0.9%				0.9%

(a) Includes booster pumping
(b) Allocated to Mains

Reference: BD-23

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<u>Avg Day</u>	<u>Flow Output</u>	<u>Max Rate</u>	<u>Base</u>	<u>Demand Factors</u>	<u>Max Hr</u>	<u>Base</u>	<u>Allocation Factors</u>	<u>Max Hr</u>
	mgd	Max Day mgd	mgd		Max Day			Max Day	
					(2)/(1)	(3)/(1)	1-(7)-(8)	(2)-(1)/[(3) or (2)]	[(3)-(2)]/(3)
Raw Water Pumping									
FY 2010	266.9	346.1		1.00	1.30	0.00	0.77	0.23	0.00
FY 2011	271.7	339.8		1.00	1.25	0.00	0.80	0.20	0.00
FY 2012	257.9	362.7		1.00	1.41	0.00	0.71	0.29	0.00
FY 2013	259.8	338.6		1.00	1.30	0.00	0.77	0.23	0.00
FY 2014	260.1	343.5		1.00	1.32	0.00	0.76	0.24	0.00
FY 2015	250.9	305.3		1.00	1.22	0.00	0.82	0.18	0.00
FY 2016	243.2	276.8		1.00	1.14	0.00	0.88	0.12	0.00
Avg FY 2010 - FY 2016	258.6	330.4		1.00	1.28	0.00	0.78	0.22	0.00
Avg FY 2012 - FY 2016	254.4	325.4		1.00	1.28	0.00	0.78	0.22	0.00
Avg FY 2014 - FY 2016	251.4	308.5		1.00	1.23	0.00	0.81	0.19	0.00
Maximum Demand Factors				1.00	1.41	0.00	0.71	0.29	0.00
USE				1.00	1.40	0.00	0.71	0.29	0.00
Filter Output									
FY 2010	249.5	305.5		1.00	1.22	0.00	0.82	0.18	0.00
FY 2011	254.3	305.7		1.00	1.20	0.00	0.83	0.17	0.00
FY 2012	241.5	297.5		1.00	1.23	0.00	0.81	0.19	0.00
FY 2013	243.1	297.0		1.00	1.22	0.00	0.82	0.18	0.00
FY 2014	244.1	319.1		1.00	1.31	0.00	0.77	0.23	0.00
FY 2015	235.0	278.6		1.00	1.19	0.00	0.84	0.16	0.00
FY 2016	228.1	255.7		1.00	1.12	0.00	0.89	0.11	0.00
Avg FY 2010 - FY 2016	242.2	294.2		1.00	1.21	0.00	0.82	0.18	0.00
Avg FY 2012 - FY 2016	238.4	289.6		1.00	1.21	0.00	0.82	0.18	0.00
Avg FY 2014 - FY 2016	235.7	284.5		1.00	1.21	0.00	0.83	0.17	0.00
Maximum Demand Factors				1.00	1.31	0.00	0.76	0.24	0.00
USE							0.71	0.29	0.00
Plant Output - Total									
FY 2010	244.5	290.4		1.00	1.19	0.00	0.84	0.16	0.00
FY 2011	250.0	305.7		1.00	1.22	0.00	0.82	0.18	0.00
FY 2012	236.1	276.8		1.00	1.17	0.00	0.85	0.15	0.00
FY 2013	238.5	297.7		1.00	1.25	0.00	0.80	0.20	0.00
FY 2014	239.8	307.3		1.00	1.28	0.00	0.78	0.22	0.00
FY 2015	230.8	289.2		1.00	1.25	0.00	0.80	0.20	0.00
FY 2016	223.8	256.4		1.00	1.15	0.00	0.87	0.13	0.00
Avg FY 2010 - FY 2016	237.6	289.1		1.00	1.22	0.00	0.82	0.18	0.00
Avg FY 2012 - FY 2016	233.8	285.5		1.00	1.22	0.00	0.82	0.18	0.00
Avg FY 2014 - FY 2016	231.5	284.3		1.00	1.23	0.00	0.81	0.19	0.00
Maximum Demand Factors				1.00	1.28	0.00	0.78	0.22	0.00
USE							0.71	0.29	

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	Average Annual Increase		
	Avg Day mgd	Flow Output Max Day mgd	Max Rate mgd	Base	Demand Factors Max Day	Max Hr	Base	Allocation Factors Max Day	Max Hr	Annual Increase	From FY 2011	Through FY 2016
					(2)/(1)	(3)/(1)	1-(7)-(8)	(2)-(1)/[(3) or (2)]	[(3)-(2)]/(3)			
Total Districts Incl. Bucks Co												
FY 2010	255.3	318.5	403.0	1.00	1.25	1.58	0.63	0.16	0.21			
FY 2011	250.7	302.1	406.9	1.00	1.21	1.62	0.61	0.13	0.26	-1.8%	-1.8%	-2.6%
FY 2012	245.8	292.0	370.4	1.00	1.19	1.51	0.67	0.12	0.21	-2.0%	-1.9%	-2.8%
FY 2013	244.5	286.2	365.0	1.00	1.17	1.49	0.67	0.11	0.22	-0.5%	-1.4%	-3.1%
FY 2014	250.0	313.6	433.8	1.00	1.25	1.74	0.57	0.15	0.28	2.3%	-0.5%	-4.3%
FY 2015	230.8	291.8	365.5	1.00	1.26	1.58	0.63	0.17	0.20	-5.6%	-2.0%	-8.4%
FY 2016	223.8	258.2	430.8	1.00	1.15	1.92	0.52	0.08	0.40	-10.5%	-2.6%	-10.5%
Avg FY 2010 - FY 2016	243.0	294.6	396.5	1.00	1.21	1.63	0.61	0.13	0.26			
Avg FY 2012 - FY 2016	239.0	288.4	393.1	1.00	1.21	1.64	0.60	0.13	0.27			
Avg FY 2014 - FY 2016	234.9	287.9	410.0	1.00	1.23	1.75	0.57	0.13	0.30			
Maximum Demand Factors				1.00	1.26	1.92	0.52	0.14	0.34			
USE	235.0			1.00	1.25	1.90	0.53	0.13	0.34			
Aqua PA												
FY 2010	3.6	6.3	9.3	1.00								
FY 2011	3.7	6.8	9.5	1.00	1.84	2.57	0.39	0.33	0.28			
FY 2012	4.1	7.3	9.7	1.00	1.78	2.37	0.42	0.33	0.25			
FY 2013	3.3	6.4	9.3	1.00	1.94	2.82	0.36	0.33	0.31			
FY 2014	3.0	6.9	9.3	1.00	2.30	3.10	0.32	0.42	0.26			
FY 2015	2.6	6.1	9.0	1.00	2.35	3.46	0.29	0.39	0.32			
FY 2016	1.4	3.6	9.9	1.00	2.57	7.07	0.14	0.22	0.64			
Avg FY 2010 - FY 2016	3.1	6.2	9.4	1.00	2.00	3.03	0.57	0.31	0.12			
Avg FY 2012 - FY 2016	2.9	6.1	9.4	1.00	2.10	3.24	0.31	0.34	0.35			
Avg FY 2014 - FY 2016	2.3	5.5	9.4	1.00	2.39	4.09	0.25	0.34	0.41			
Maximum Demand Factors				1.00	2.57	7.07	0.14	0.22	0.64			
USE	2.00	4.92	9.00		2.40							
	See Aqua PA TY Usage =====>											

AQUA PA TEST YEAR USAGE			
	Annual Usage (mcf)	Peak Usage mgd	
FY 2015	126,872		
FY 2016	68,316		
FY 2017	100,007		
FY 2018	100,007	4.92	9.00
FY 2019	100,007	4.92	9.00
FY 2020	100,007	4.92	9.00
FY 2021	100,007	4.92	9.00
FY 2022	100,007		
FY 2023	100,007		
FY 2024	100,007		
TY 2019			
mcf	100,007		
mgd	2.00	4.92	9.00

<u>Baxter Plant</u>	% of Total									
FY 2010	54.3%	138.7	177.7	1.00	1.28	0.00	0.78	0.22	0.00	
FY 2011	55.8%	139.9	160.6	1.00	1.15	0.00	0.87	0.13	0.00	
FY 2012	55.3%	135.8	174.3	1.00	1.28	0.00	0.78	0.22	0.00	
FY 2013	55.1%	134.6	182.2	1.00	1.35	0.00	0.74	0.26	0.00	
FY 2014	54.5%	136.4	167.7	1.00	1.23	0.00	0.81	0.19	0.00	
FY 2015	55.2%	127.3	163.9	1.00	1.29	0.00	0.78	0.22	0.00	
FY 2016	57.8%	129.3	150.6	1.00	1.16	0.00	0.86	0.14	0.00	
Avg FY 2010 - FY 2016	55.4%	134.6	168.1	1.00	1.25	0.00	0.80	0.20	0.00	
Avg FY 2012 - FY 2016		132.7	167.7	1.00	1.26	0.00	0.79	0.21	0.00	
Avg FY 2014 - FY 2016		131.0	160.7	1.00	1.23	0.00	0.82	0.18	0.00	
Maximum Demand Factors				1.00	1.35	0.00	0.74	0.26	0.00	
USE	55.7%	131.0			1.30					
<u>Baxter Low Service</u>										
FY 2010		48.1	61.4	75.8	1.00	1.28	1.58	0.63	0.18	0.19
FY 2011		47.7	64.5	70.0	1.00	1.35	1.47	0.68	0.24	0.08
FY 2012		44.6	63.7	87.2	1.00	1.43	1.96	0.51	0.22	0.27
FY 2013		42.0	59.7	70.5	1.00	1.42	1.68	0.60	0.25	0.15
FY 2014		42.6	63.6	86.3	1.00	1.49	2.03	0.50	0.24	0.26
FY 2015		40.0	50.1	62.0	1.00	1.25	1.55	0.65	0.16	0.19
FY 2016		40.1	49.7	68.0	1.00	1.24	1.70	0.59	0.14	0.27
Avg FY 2010 - FY 2016		43.6	59.0	74.3	1.00	1.35	1.70	0.58	0.21	0.21
Avg FY 2012 - FY 2016		41.9	57.4	74.8	1.00	1.37	1.79	0.56	0.21	0.23
Avg FY 2014 - FY 2016		40.9	54.5	72.1	1.00	1.33	1.76	0.57	0.19	0.24
Maximum Demand Factors					1.00	1.49	2.03	0.49	0.24	0.27
USE		41.0				2.00				

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
ALLDEP - Allocation of Depreciation Expense	P.N. 135647.0100	February 11, 2018 11:42 p.m.			Wptallo-5

TABLE W-9

ALLOCATION OF TEST YEAR WATER PLANT DEPRECIATION EXPENSE
TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2019

Line No.	Description	(1)	(2)	(3)		(4)	(5)	(6)		(7)	(8)	Allocation Basis:			Aqua PA
		Total Test Year Depreciation Expense \$ <u>Plant-15</u>	Base \$	Maximum Day \$	Maximum Hour In Excess of Maximum Day \$	Customer Meters \$	Standard Pressure \$	High Pressure \$	Wholesale Direct \$ <u>Plant-15</u>	Base	Max Day	Max Hour			
	Raw Water Supply and Pumping														
1	Source of Supply	161,000	161,000									100%			
2	Power and Pumping	391,000	275,000	112,000							4,000	71%	29%		4,000
3	Total Supply and Pumping	552,000	436,000	112,000							4,000				4,000
	Purification and Treatment														
4	Power and Pumping (a)	1,411,000	735,000	180,000	472,000						24,000	53%	13%	34%	24,000
5	Treatment	8,648,000	6,034,000	2,464,000							150,000	71%	29%		150,000
6	Total Purification and Treatment	10,059,000	6,769,000	2,644,000	472,000						174,000				174,000
	Transmission and Distribution														
7	Mains	14,779,000	7,796,000	1,912,000	5,002,000						69,000	53%	13%	34%	69,000
8	Meters	1,944,000				1,944,000					0	100%			
9	Hydrants	230,000					230,000				0	100%			
10	Filtered Water Storage	1,074,000	559,000	137,000	359,000						19,000	53%	13%	34%	19,000
11	High Pressure Fire System	0								0	0	100%			
12	Total Transmission and Distribution	18,027,000	8,355,000	2,049,000	5,361,000	1,944,000	230,000				88,000				88,000
13	Subtotal	28,638,000	15,560,000	4,805,000	5,833,000	1,944,000	230,000				266,000				266,000
14	Administrative and General	2,701,000	1,528,000	464,000	609,000	56,000	19,000	0			25,000	Allocation of Plant A & G			25,000
15	Total Water Plant Expense	31,339,000	17,088,000	5,269,000	6,442,000	2,000,000	249,000				291,000				291,000
			54.5%	16.8%	20.6%	6.4%	0.8%	0.0%			0.9%				0.9%

(a) Includes booster pumping

WCOS17_19.XLS

WOMALLO

Worksheet Description: This worksheet allocates Water Operation and Maintenance Expense to Functional Cost Components

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WomaInd - Index	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-1

The "Womallo" worksheet allocates Water utility operation and maintenance expense to functional cost components.

Range	Description	Page Number	Table
WomaInd	Index	Womallo-1	
TYOME	Test Year O&M Expense	Womallo-2	
OMFAC	O&M by Facility	Womallo-3	
AOMF1	Adjusted O&M by Facility - Page 1	Womallo-4	
AOMF2	Adjusted O&M by Facility - Page 2	Womallo-5	
LDCNTRL	Load Control O&M Expense	Womallo-6	
DISTSYS	Distribution System O&M Expense	Womallo-7	
XXXXX	PAGE NOT IN USE	Womallo-8	
ADMIN	Allocation of Administrative Costs	Womallo-9	
MSMM	Machine Shop & Materials Mgmt O&M	Womallo-10	
DIROM	Allocation of Direct to O&M Facility	Womallo-11	
ADHR	Administrative & Human Resources O&M	Womallo-12	
xxxxx	NOT IN USE	Womallo-13	
ATOM	Allocation of Total O&M Expense	Womallo-14	
xxxxx	NOT IN USE	Womallo-15	
OMALLO	Allocation of O&M Expense - Table	Womallo-16	TABLE W-10
ATACC	Allocated Treatment & Conveyance Costs	Womallo-17	
PSWCOMAL	Aqua PA Allocated O&M	Womallo-18	

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)				DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
TYOME - Test Year O&M Expense		P.N. 135647.0100				February 11, 2018 11:47 p.m.						Womallo-2
Reference: Financial Planning Model Link Worksheet		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
Line No.	Test Year Class 100 Expend.	Test Year Class 200 Expenditures				Test Year Class 300 Expenditures			Test Year Class 400 Expend.	Total		
		Power	Gas	All Other	Total	Chemicals	All Other	Total				
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		
OPERATIONS DIVISION												
DIRECT COSTS												
1	Baxter Treatment Plant	3,135,650	0	0	579,360	579,360	7,983,895	880,656	8,864,551	101,926	12,681,488	
2	Queen Lane Treatment Plant	3,088,771	0	0	773,401	773,401	4,375,758	712,208	5,087,966	88,343	9,038,480	
3	Belmont Treatment Plant	3,019,911	0	0	503,931	503,931	3,774,197	614,973	4,389,170	31,666	7,944,679	
4	Conveyance Headquarters	0	0	0	0	0	0	0	0	0	0	
5	Load Control	1,800,168	8,287,676	373,561	1,043,951	9,705,189	0	88,864	88,864	31,261	11,625,482	
6	Distribution	15,037,060	80,151	34,351	1,039,908	1,154,410	43,657	191,221	234,877	169,702	16,596,049	
7	Pumping	2,694,904	0	0	283,051	283,051	2,489	324,138	326,627	42,913	3,347,494	
8	Emergency & Support Services	0	0	0	0	0	0	0	0	0	0	
9	Subtotal	28,776,465	8,367,828	407,912	4,223,602	12,999,342	16,179,995	2,812,060	18,992,055	465,810	61,233,672	
ALLOCATED COSTS												
10	Treatment Headquarters	245,604	80,152	45,085	100,686	225,923	855	2,860	3,715	1,777	477,019	
11	Machine Shops	0	0	0	0	0	0	0	0	0	0	
12	Building Maintenance	0	0	0	0	0	0	0	0	0	0	
13	Security	0	0	0	0	0	0	0	0	0	0	
14	Operations Admin.	2,641,712	0	0	3,232,187	3,232,187	0	272,021	272,021	146,561	6,292,481	
15	Mtls. Management	906,339	0	0	80,116	80,116	17,986	2,836,561	2,854,547	406	3,841,409	
16	Customer Service	785,316	0	0	2,022,132	2,022,132	0	12,026	12,026	4,141	2,823,615	
17	Warranty Program	0	0	0	0	0	0	0	0	0	0	
18	Meter Shop	1,228,134	0	0	902,809	902,809	0	38,199	38,199	44,740	2,213,883	
19	Automotive Maintenance	0	0	0	0	0	0	0	0	0	0	
20	Subtotal Allocated Costs	5,807,106	80,152	45,085	6,337,930	6,463,167	18,841	3,161,668	3,180,509	197,625	15,648,407	
21	Total Operations	34,583,571	8,447,980	452,997	10,561,533	19,462,509	16,198,836	5,973,728	22,172,564	663,436	76,882,079	x
FRINGE BENEFITS												
22	Admin & Hr										2,636,028	
23	Finance										927,863	
24	Planning & Engr.										4,151,061	
25	Information Science & Tech										3,363,615	
26	Operations										30,510,320	
27	Public Affairs										2,122,398	
28	Dept. Of Revenue (WRB)										2,610,064	
29	Law Dept.										706,394	
30	Capital Fringes (270)										5,978,173	
31	Total Fringe Benefits										53,005,915	x
INTERDEPARTMENTAL												
32	WRB Expense										5,158,317	x
33	All Other Expenses (includes Other Inter Dept Fringes)										6,917,764	
34	FINANCE & ADMIN										4,678,810	
35	HUMAN RESOURCES										4,532,293	
36	PLANNING & ENGINEERING	4,705,244				5,308,286		361,803	109,682	10,485,015		
37	INFORMATION SCIENCE & TECH	3,812,671				7,466,087		909,184	0	12,187,942	22,672,957	
38	PUBLIC AFFAIRS									5,751,726		
39	INDEMNITIES									2,151,987		
40	TOTAL O&M EXPENSE (Adjusted for Liquidated Encumbrances)										181,751,848	22,672,957

Control Total Summary:		
Fringe Benefits	53,005,915	This page
Interdepartmental	51,863,854	This page
Operations	76,882,079	This page
Subtotal	181,751,848	
WTP Sludge	13,428,000	Womallo-16
Total	195,179,848	
Total agrees with Womallo-16	195,180,000	Womallo-16

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
OMFAC - O&M by Facility	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-3

Reference: [Womallo-2](#)

WATER UTILITY EXPENDITURES
TEST YEAR 2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	TRT HQ	Baxter	Queen Lane	Belmont	Treatment Subtotal	CONV HQ	Load Control	Dist.	Emerg & SS	Pumping	Control Subtotal
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
					(1)+(2)+(3)+(4)						(6)+(7)+(8)+(9)+(10)
PERSONAL SERVICES											
Total Class 100	245,604	3,135,650	3,088,771	3,019,911	9,489,937	0	1,800,168	15,037,060	0	2,694,904	19,532,133
PURCHASED SERVICES											
Power - Class 220	80,152	0	0	0	80,152	0	8,287,676	80,151	0	0	8,367,828
xxxxxxx											
Power Less L.E. - Class 220	80,152	0	0	0	80,152	0	8,287,676	80,151	0	0	8,367,828
Gas - Class 221	45,085	0	0	0	45,085	0	373,561	34,351	0	0	407,912
xxxxxxx											
Gas Less L.E. - Class 221	45,085	0	0	0	45,085	0	373,561	34,351	0	0	407,912
All Other	100,686	579,360	773,401	503,931	1,957,378	0	1,043,951	1,039,908	0	283,051	2,366,910
xxxxxxx											
All Other Less L.E.	100,686	579,360	773,401	503,931	1,957,378	0	1,043,951	1,039,908	0	283,051	2,366,910
Total Class 200	225,923	579,360	773,401	503,931	2,082,615	0	9,705,189	1,154,410	0	283,051	11,142,650
MATERIALS AND SUPPLIES											
Chemicals - Class 307	855	7,983,895	4,375,758	3,774,197	16,134,704	0	0	43,657	0	2,489	46,145
xxxxxxx											
Chemicals less L.E. - Class 3	855	7,983,895	4,375,758	3,774,197	16,134,704	0	0	43,657	0	2,489	46,145
All Other	2,860	880,656	712,208	614,973	2,210,698	0	88,864	191,221	0	324,138	604,222
xxxxxxx											
All Other Less L.E.	2,860	880,656	712,208	614,973	2,210,698	0	88,864	191,221	0	324,138	604,222
Total Class 300	3,715	8,864,551	5,087,966	4,389,170	18,345,402	0	88,864	234,877	0	326,627	650,368
EQUIPMENT											
Total Class 400	1,777	101,926	88,343	31,666	223,712	0	31,261	169,702	0	42,913	243,876
Total Classes 100 - 400	477,019	12,681,488	9,038,480	7,944,679	30,141,666	0	11,625,482	16,596,049	0	3,347,494	31,569,026

	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
	GS HQ	CUST SERV	WARRANTY	METER SHOP	AUTO MAINT	BLDG MAINT	MACH SHOP	MTLS MGMT	SECURITY	GENERAL SUBTOTAL	OPER ADMIN	OPER TOTAL	CHECK TOTAL	Difference
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
										sum (12) thru (20)		(5)+(11)+(21)+(22)		(23) - (24)
PERSONAL SERVICES														
Total Class 100		785,316	0	1,228,134	0	0	0	906,339	0	2,919,789	2,641,712	34,583,571	34,583,571	0
PURCHASED SERVICES														
Power - Class 220		0	0	0	0	0	0	0	0	0	0	8,447,980	8,447,980	0
Gas - Class 221		0	0	0	0	0	0	0	0	0	0	452,997	452,997	0
All Other (excluding Class 2)	0	2,022,132	0	902,809	0	0	0	80,116	0	3,005,058	3,232,187	10,561,533	10,561,533	0
Total Class 200	0	2,022,132	0	902,809	0	0	0	80,116	0	3,005,058	3,232,187	19,462,509	19,462,509	0
MATERIALS AND SUPPLIES														
Chemicals - Class 307		0	0	0	0	0	0	17,986	0	17,986	0	16,198,836	16,198,836	0
All Other	0	12,026	0	38,199	0	0	0	2,836,561	0	2,886,786	272,021	5,973,728	5,973,728	0
Total Class 300	0	12,026	0	38,199	0	0	0	2,854,547	0	2,904,773	272,021	22,172,564	22,172,564	0
EQUIPMENT														
Total Class 400		4,141	0	44,740	0	0	0	406	0	49,287	146,561	663,436	663,436	0
Total Classes 100 - 400	0	2,823,615	0	2,213,883	0	0	0	3,841,409	0	8,878,906	6,292,481	76,882,079	76,882,079	0

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
AOMF1 - Adjusted O&M by Facility - Page 1	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-4

Reference: [Womallo-3](#)

WATER UTILITY EXPENDITURES WITH ADJUSTMENTS
TEST YEAR 2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	TRT HO (a)	Baxter	Queen Lane	Belmont	Treatment Subtotal	CONV HO (b)	Load Control	Dist.	Emerg & SS	Pumping (c)	WC Subtotal
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
					(1)+(2)+(3)+(4)						(6)+(7)+(8)+(9)+(10)
PERSONAL SERVICES											
Total Class 100	245,604	3,135,650	3,088,771	3,019,911	9,489,937	0	1,800,168	15,037,060	0	2,694,904	19,532,133
Adjustments	(245,604)	81,868	81,868	81,868	0	0	2,694,904	0	0	(2,694,904)	(0)
Adjusted Class 100	0	3,217,518	3,170,639	3,101,780	9,489,937	0	4,495,072	15,037,060	0	0	19,532,133
PURCHASED SERVICES											
Power - Class 220	80,152	0	0	0	80,152	0	8,287,676	80,151	0	0	8,367,828
Adjustments	(80,152)	26,717	26,717	26,718	0	0	0	0	0	0	0
Adjusted Power - Class 220	0	26,717	26,717	26,718	80,152	0	8,287,676	80,151	0	0	8,367,828
Gas - Class 221	45,085	0	0	0	45,085	0	373,561	34,351	0	0	407,912
Adjustments	(45,085)	15,028	15,028	15,029	0	0	0	0	0	0	0
Adjusted Gas - Class 221	0	15,028	15,028	15,029	45,085	0	373,561	34,351	0	0	407,912
Allocate Pumping Gas Costs to Load Control							0			0	0
All Other	100,686	579,360	773,401	503,931	1,957,378	0	1,043,951	1,039,908	0	283,051	2,366,910
Adjustments	(100,686)	33,562	33,562	33,562	0	0	283,051	0	0	(283,051)	0
Adjusted All Other	0	612,922	806,963	537,492	1,957,378	0	1,327,002	1,039,908	0	0	2,366,910
Total Class 200	0	654,667	848,708	579,239	2,082,615	0	9,988,240	1,154,410	0	0	11,142,650
MATERIALS AND SUPPLIES											
Chemicals - Class 307	855	7,983,895	4,375,758	3,774,197	16,134,704	0	0	43,657	0	2,489	46,145
Adjustments	(855)	1,114	1,114	1,114	2,489	0	0	0	0	(2,489)	(2,489)
Adjusted Chemicals	0	7,985,010	4,376,872	3,775,311	16,137,193	0	0	43,657	0	0	43,657
All Other	2,860	880,656	712,208	614,973	2,210,698	0	88,864	191,221	0	324,138	604,222
Adjustments	(2,860)	953	953	954	0	0	324,138	0	0	(324,138)	0
Adjusted All Other	0	881,609	713,161	615,928	2,210,698	0	413,002	191,221	0	0	604,222
Total Class 300	0	8,866,619	5,090,033	4,391,239	18,347,891	0	413,002	234,877	0	0	647,879
EQUIPMENT											
Total Class 400	1,777	101,926	88,343	31,666	223,712	0	31,261	169,702	0	42,913	243,876
Adjustments	(1,777)	592	592	593	0	0	42,913	0	0	(42,913)	0
Adjusted Class 400	0	102,518	88,935	32,260	223,712	0	74,174	169,702	0	0	243,876
Adjusted Total Classes 100 - 400	0	12,841,322	9,198,315	8,104,518	30,144,155	0	14,970,488	16,596,049	0	0	31,566,537
Fringe Benefits (Womallo-2) (d)	0	2,838,560	2,797,201	2,736,452	8,372,213	0	3,965,643	13,265,996	0	0	17,231,639
ADJUSTED TOTAL	0	15,679,882	11,995,516	10,840,970	38,516,368	0	18,936,131	29,862,045	0	0	48,798,176
INCLUDING FRINGE BENEFITS											

(a) Adjustments prorated to Baxter, Queen Lane, and Belmont plants.

(b) Adjustments prorated to Load Control, Distribution, and E&S Services.

(c) Chemical adjustment prorated to Baxter, Queen Lane, and Belmont Plants. Remaining adjustments prorated to Load Control.

(d) Allocated based on Adjusted Class 100.

Reference: [Womallo-3](#)

WATER UTILITY EXPENDITURES WITH ADJUSTMENTS
TEST YEAR 2019

	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
	<u>GS HQ (a)</u>	<u>Customer Service</u>	<u>Warranty</u>	<u>Meter Shop</u>	<u>Auto Maint</u>	<u>BLDG MAINT</u>	<u>Machine Shop</u>	<u>MTLS MGMT</u>	<u>Security</u>	<u>General Subtotal</u>	<u>OPER ADMIN</u>	<u>OPER TOTAL</u>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
										sum (12) thru (20)		(5)+(11)+(21)+(22)
PERSONAL SERVICES												
Total Class 100	0	785,316	0	1,228,134	0	0	0	906,339	0	2,919,789	2,641,712	34,583,571
Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Class 100	0	785,316	0	1,228,134	0	0	0	906,339	0	2,919,789	2,641,712	34,583,571
PURCHASED SERVICES												
Power - Class 220	0	0	0	0	0	0	0	0	0	0	0	8,447,980
Adjustments												0
Adjusted Power - Class 220	0	0	0	0	0	0	0	0	0	0	0	8,447,980
Gas - Class 221	0	0	0	0	0	0	0	0	0	0	0	452,997
Adjustments												0
Adjusted Gas - Class 221	0	0	0	0	0	0	0	0	0	0	0	452,997
All Other (b)	0	2,022,132	0	902,809	0	0	0	80,116	0	3,005,058	3,232,187	10,561,533
Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted All Other	0	2,022,132	0	902,809	0	0	0	80,116	0	3,005,058	3,232,187	10,561,533
Total Class 200	0	2,022,132	0	902,809	0	0	0	80,116	0	3,005,058	3,232,187	19,462,509
MATERIALS AND SUPPLIES												
Chemicals - Class 307	0	0	0	0	0	0	0	17,986	0	17,986	0	16,198,836
Adjustments										0		0
Adjusted Chemicals	0	0	0	0	0	0	0	17,986	0	17,986	0	16,198,836
All Other	0	12,026	0	38,199	0	0	0	2,836,561	0	2,886,786	272,021	5,973,728
Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted All Other	0	12,026	0	38,199	0	0	0	2,836,561	0	2,886,786	272,021	5,973,728
Total Class 300	0	12,026	0	38,199	0	0	0	2,854,547	0	2,904,773	272,021	22,172,564
EQUIPMENT												
Total Class 400	0	4,141	0	44,740	0	0	0	406	0	49,287	146,561	663,436
Adjustments												
Adjusted Class 400	0	4,141	0	44,740	0	0	0	406	0	49,287	146,561	663,436
Adjusted Total Classes 100 - 400	0	2,823,615	0	2,213,883	0	0	0	3,841,409	0	8,878,906	6,292,481	76,882,079
Fringe Benefits (Womallo-2) (b)	0	692,821	0	1,083,485	0	0	0	799,590	0	2,575,896	2,330,572	30,510,320
ADJUSTED TOTAL	0	3,516,436	0	3,297,368	0	0	0	4,640,999	0	11,454,802	8,623,053	107,392,399
INCLUDING FRINGE BENEFITS												

AGREES with Womallo-3

(a) Prorated to all other General Support items (Columns 13 through 19).
(b) Allocated based on Adjusted Class 100.

Reference:

Power Cost:	Percent of Total (a)	Percent of Load Control	Load Control Power Cost
	BOX 2		\$
Raw Water Pumping			
Baxter Plant	5.78%	6.39%	529,583
All Other	28.27%	31.25%	2,589,899
Subtotal	34.05%	37.64%	3,119,482
Treated Water Pumping			
Baxter Plant (Low Service)	7.12%	7.87%	652,240
All Other (b)	49.30%	54.49%	4,515,954
Subtotal	56.42%	62.36%	5,168,194
High Pressure Fire (c)	0.00%	0.00%	0
Total Load Control	90.47%	100.00%	8,287,676

- (a) Percent of total system power bills based on 2 year average FY2014 and FY 2015.
- (b) Includes booster pump stations and Filter Buildings.
- (c) Includes Fairhill and Race Street pump stations.

BOX 2 - WATER DEPT ELECTRICAL EXPENDITURES					
	FY 2014	FY 2015	Average		
	\$	\$	\$	%	
	BD 24	BD 24			
Baxter					
Raw Water PS	472,503	312,541	392,522	5.78%	x
Hi Service PS	492,800	801,014	646,907	9.52%	x
Lo Service PS	616,169	351,668	483,918	7.12%	x
Filter Bldg	288,703	254,496	271,600	4.00%	x
Queen Lane					
Raw Water PS	942,913	944,878	943,896	13.89%	x
Hi Service PS	459,990	486,498	473,244	6.97%	x
Rox Exp PS	0	0	0	0.00%	
Filter Bldg	264,065	235,730	249,898	3.68%	x
Belmont					
Raw Water PS	961,457	992,711	977,084	14.38%	x
Hi Service PS	164,353	199,591	181,972	2.68%	x
Filter Bldg	157,279	174,882	166,081	2.44%	x
Distrib./Booster PS	1,989,085	2,023,383	2,006,234	29.53%	x
Hi Press. Fire System	0	0	0	0.00%	99.99%

Shut down 1/6/05 (28282U01.xls BD-19 FY 2007)

Gas Cost:	Percent of Total (a)	Percent of Load Control	Load Control Gas Cost
	BOX 3		\$
Raw Water Pumping			
Baxter Plant	0.00%	0.00%	0
All Other	0.15%	0.15%	560
Subtotal	0.15%	0.15%	560
Treated Water Pumping			
Baxter Plant (Low Service)	0.00%	0.00%	0
All Other (b)	99.84%	99.85%	373,001
Subtotal	99.84%	99.85%	373,001
High Pressure Fire (c)	0.00%	0.00%	0
Total Load Control	99.99%	100.00%	373,561

- (a) Percent of total system gas bills based on 2 year average FY2014 and FY 2015.
- (b) Includes booster pump stations and Filter Buildings.
- (c) Includes Fairhill and Race Street pump stations.

BOX 3 - WATER DEPT GAS EXPENDITURES					
	FY 2016	YTD FY 2017	Average		
	\$	\$	\$	%	
	BD XX	BD XX			
Baxter					
Raw Water PS	0	0	0	0.00%	x
Hi Service PS	0	0	0	0.00%	x
Lo Service PS	0	0	0	0.00%	x
Filter Bldg	119,793	65,477	92,635	32.47%	x
Queen Lane					
Raw Water PS	256	596	426	0.15%	x
Hi Service PS	0	0	0	0.00%	x
Rox Exp PS	0	0	0	0.00%	
Filter Bldg	93,532	49,828	71,680	25.12%	x
Belmont					
Raw Water PS	0	0	0	0.00%	x
Hi Service PS	5,677	5,455	5,566	1.95%	x
Filter Bldg	67,266	46,874	57,070	20.00%	x
Distrib./Booster PS	66,074	49,780	57,927	20.30%	x
Hi Press. Fire System	0	0	0	0.00%	99.99%

All Other Load Control Expense:

Test Year Plant Investment	Percent	Load Control Expense Excluding Power						Total
		Percent of Load Control	Class100(a)	Class200	Class300	Class400	Total	
\$			\$	\$	\$	\$	\$	
BOX 1			Womallo-4	Womallo-4	Womallo-4	Womallo-4		
PUMPING RELATED:								
Raw Water Pumping								
Baxter Plant	4,566,890	5.04%	3.78%	319,815	50,161	15,611	2,804	388,391
All Other	14,530,523	16.05%	12.04%	1,018,670	159,771	49,725	8,931	1,237,097
Subtotal	19,097,414	21.09%	15.82%	1,338,485	209,932	65,336	11,735	1,625,488
Treated Water Pumping								
Baxter Plant (Low Service)	8,933,136	9.87%	7.40%	626,093	98,198	30,562	5,489	760,342
All Other	62,514,463	69.04%	51.77%	4,380,112	686,989	213,811	38,400	5,319,312
Subtotal	71,447,600	78.91%	59.17%	5,006,205	785,187	244,373	43,889	6,079,654
High Pressure Fire	7,299	0.01%	0.01%	846	133	41	7	1,027
Total Load Control	90,552,312	100.01%	75%	6,345,536	995,252	309,750	55,631	7,706,169
DISTRIBUTION SYSTEM RELATED:								
			25%	2,115,179	331,751	103,250	18,544	2,568,724
		100.00%	8,460,715	1,327,002	413,002	74,174	10,274,893	10,274,894

(a) Includes Fringe Benefits

BOX 1 - PLANT INVESTMENT	\$
TEST YR PLANT IN SERVICE	Plant-8
POWER & PUMPING - RAW WATER	
Torresdale	4,566,890
Torresdale Intake Conduit	0
Torresdale Raw Water Basin	0
All Other	14,530,523
Total	19,097,414
PURIFICATION	
Torresdale Filters	182,417,739
All Other	201,484,420
Total	383,902,159
TREATED WATER	
Torresdale Low Service	8,933,136
All Other	62,514,463
Total	71,447,600
HIGH PRESSURE FIRE	7,299

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
DISTSYS - Distribution System O&M Expense	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-7

	Test Year Plant Investment (a) \$	Percent of Total Distribution	Distribution Expense					Total \$
			Class100 \$	Class200 \$	Class300 \$	Class400 \$		
	BOX 1		Womallo-4	Womallo-4	Womallo-4	Womallo-4		
Transmission & Distribution Mains								
Small Mains	580,441,365	67.51%	18,339,567	748,025	152,194	109,962	19,349,748	
Large Mains (24" and larger)	213,000,854	24.77%	6,728,945	274,457	55,841	40,346	7,099,589	
Total Mains (exClassHP Fire)	793,442,219	92.28%	25,068,512	1,022,482	208,035	150,308	26,449,337	
Fire Hydrants	9,200,000	1.07%	1,428,025	58,246	11,850	8,562	1,506,684	
Meters	27,777,986	3.23%	877,452	35,789	7,282	5,261	925,784	
Filt Water Storage & All Other	29,387,523	3.42%	929,067	37,893	7,710	5,570	980,240	
High Pressure Fire System	7,299	0.00%	0	0	0	0	0	
Total Distribution System	859,815,027	100.00%	28,303,056	1,154,410	234,877	169,702	29,862,045	
Included in Fire Hydrants Above	859,815,027	AGREES with BOX 1	1,137,352	46,390	9,438	6,819	1,200,000 (b)	

BOX 1 - PLANT INVESTMENT		%	\$
			Plant-15
Total Mains			793,442,219
1	16" and larger	35.5%	
2	18" and larger	31.5%	
3	24" and larger	26.8%	
4	30" and larger	23.2%	
5	36" and larger	18.6%	
6	48" and larger	14.9%	
	USE	26.8%	213,000,854
	Bucks County 48" Main		0
Fire Hydrants			9,200,000
Meters			27,777,986
Filtered Water Storage (exClassresevoirs)			39,587
All Other (Reservoirs)			29,347,936
Total Distribution System			66,365,509
High Pressure Fire System			7,299

(a) Plant investment in Distribution related facilities. Includes Fringe Benefits. 28,303,056 1,154,410 234,877 169,702 29,862,045 29,862,045

(b) A total of \$1,200,000 was added to the allocation of Fire Hydrants to replicate prior study allocations where Emergency & S Services was a cost category. See WALLO.WK1 for Project No. 19289.100 Allocation of E&SS Expenses. AGREES with Womallo-4

Transmission & Distribution Mains								
Small Mains	645,614,123	75.09%	21,252,765	866,847	176,369	127,429	22,423,410	
Large Mains (36" and larger)	147,828,095	17.19%	4,865,295	198,443	40,375	29,172	5,133,285	
Total Mains (exClassHP Fire)	793,442,219	92.28%	26,118,060	1,065,290	216,744	156,601	27,556,695	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
XXXX - PAGE NOT IN USE	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-8
COST CENTER NO LONGER BUDGETED							

	ALLOCATION OF PLANNING & ENGINEERING EXPENSE				ALLOCATION OF DOT			ALLOCATION OF PUBLIC AFFAIRS			
	Total Planning & Engineering \$	Watersheds	BLS	Planning & Research	DOT	Customer	A&G	Public Affairs \$	Customer	Volume	A&G
	<u>Womallo-3</u>				<u>Womallo-3</u>						
Class 100 (including fringes)	8,856,305	816,998	5,275,204	2,764,103	7,176,286	421,402	6,754,884	4,528,146			4,528,146
Class 200	5,308,286	3,552,465	819,396	936,425	7,466,087	2,124,837	5,341,250	3,197,871	1,069,332	1,509,535	619,003
Class 300	361,803	0	350,836	10,968	909,184	179,623	729,561	137,577			137,577
Class 400	109,682	0	120,506	(10,824)	0	0	0	10,532			10,532
Total	14,636,076	4,369,463	6,565,941	3,700,671	15,551,557	2,725,862	12,825,695	7,874,125	1,069,332	1,509,535	5,295,258
Class 100	4,705,244	434,061	2,802,650	1,468,533							
P&E + DOT		7,095,325	6,565,941	16,526,367							

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)					DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
MSMM - Machine Shop & Materials Mgmt O&M	P.N. 135647.0100					February 11, 2018 11:47 p.m.						Womallo-10
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
	Treatment Plants \$	Load Control \$	Distribution \$	E&SS (a) \$	Customer Service (b) \$	Automotive Maint. (c) \$	Building Maint. (d) \$	TOTAL Class300 \$	Machine Shop & Materials Mgmt. (e) \$			
SUPPLY & TREATMENT	<u>Womallo-4</u>	<u>Womallo-6</u>	<u>Womallo-7</u>	<u>Womallo-8</u>	<u>Womallo-5</u>	<u>Womallo-5</u>	<u>Womallo-5</u>		<u>Womallo-5</u>			
Source of Supply												
Raw Water Power & Pumping												
Baxter Treatment Plant												
Power												
Gas												
All Other Costs		15,611						15,611	26,295			
Subtotal	0	15,611	0	0	0	0	0	15,611	26,295			
All Other Treatment Plants												
Power												
Gas												
All Other Costs		49,725						49,725	83,756			
Subtotal	0	49,725	0	0	0	0	0	49,725	83,756			
Subtotal	0	65,336	0	0	0	0	0	65,336	110,051			
Treatment Purification												
Baxter Treatment Plant												
Power												
Gas												
Chemicals												
All Other Costs	881,609					0		881,609	1,484,959			
Subtotal	881,609	0	0	0	0	0	0	881,609	1,484,959			
All Other Treatment Plants												
Power												
Gas												
Chemicals												
All Other Costs	1,329,089					0		1,329,089	2,238,684			
Subtotal	1,329,089	0	0	0	0	0	0	1,329,089	2,238,684			
Subtotal	2,210,698	0	0	0	0	0	0	2,210,698	3,723,643			
Treated Water Power & Pumping												
Baxter Treatment Plant - L.S.												
Power												
Gas												
All Other Costs		30,562						30,562	51,478			
Subtotal	0	30,562	0	0	0	0	0	30,562	51,478			
All Other Pumping												
Power												
Gas												
All Other Costs		213,811						213,811	360,138			
Subtotal	0	213,811	0	0	0	0	0	213,811	360,138			
Subtotal	0	244,373	0	0	0	0	0	244,373	411,616			
Total Supply & Treatment	2,210,698	309,709	0	0	0	0	0	2,520,407	4,245,310			
DISTRIBUTION												
Filtered Water Storage			7,710				0	7,710	12,987			
High Pressure Fire System		41					0	41	69			
Transmission & Distribution Mains												
Small Mains (Less than 24")			152,194				0	152,194	256,352			
Large Mains (24" & Over)			55,841				0	55,841	94,057			
Subtotal	0	0	208,035	0	0	0	0	208,035	350,409			

Fire Hydrants			11,850			0		11,850	19,960
Meters			7,282			0		7,282	12,264
Total Distribution	0	41	234,877	0	0	0	0	234,918	395,689
CUSTOMER ACCT. & COLLECTION			0		50,225			50,225	
ADMINISTRATIVE & GENERAL								0	0
TOTAL O & M	2,210,698	309,750	234,877	0	50,225	0	0	2,805,550	4,640,999
		309,750	234,877	0		0	0		4,640,999
		Agrees with Womallo-6	Agrees with Womallo-7	Agrees with Womallo-4		Agrees with Womallo-5	Agrees with Womallo-5		Agrees with Womallo-5

- (a) Total of this column is distributed based on distribution shown in column (4), Womallo-11.
- (b) Includes Customer Service and Meter Shop.
- (c) Total of this column is distributed based on distribution shown in column (6), Womallo-11.
- (d) Total of this column is distributed based on distribution shown in column (7), Womallo-11.
- (e) Total of this column is distributed based on distribution shown in column (8), this page, excluding Customer Acct. and Collection.

Transmission & Distribution Mains									
Small Mains (Less than 36")			176,369			0		176,369	297,071
Large Mains (36" & Over)			40,375			0		40,375	68,007
Subtotal	0	0	216,744	0	0	0	0	216,744	365,078

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)				DRAFT - for Discussion Only			Test Year	2019	Budget Yr	2017	Ver. 1a
DIROM - Allocation of Direct to O&M Facility		P.N. 135647.0100				February 11, 2018 11:47 p.m.							Womallo-11
Line No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	Conveyance (b)								Machine Shop & Materials Management	Subtotal	Admin. & General (f)	Total Direct Expense	
	Treatment Plants (a)	Load Control (i)	Distribution	E & S Services (j)	Customer Service (c)	Warranty Program	Automotive Maint (d)	Building Maint					
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
SUPPLY & TREATMENT													
1	Source of Supply												
Raw Water Power & Pumping													
Baxter Treatment Plant													
2	Power	529,583								529,583		529,583	
3	Gas	0								0		0	
4	All Other Costs	388,391							26,295	414,686		414,686	
5	Subtotal	0	917,974	0	0	0	0	0	26,295	944,269	0	944,269	
All Other Treatment Plants													
6	Power	2,589,899								2,589,899		2,589,899	
7	Gas	560								560		560	
8	All Other Costs	1,237,097							83,756	1,320,853		1,320,853	
9	Subtotal	0	3,827,556	0	0	0	0	0	83,756	3,911,312	0	3,911,312	
10	Subtotal	0	4,745,530	0	0	0	0	0	110,051	4,855,581	0	4,855,581	
Treatment Purification													
Baxter Treatment Plant													
11	Power	26,717								26,717		26,717	
12	Gas	15,028								15,028		15,028	
13	Chemicals	7,985,010								7,985,010		7,985,010	
14	All Other Costs	7,653,128							1,484,959	9,138,087		9,138,087	
15	Subtotal	15,679,883	0	0	0	0	0	0	1,484,959	17,164,842	0	17,164,842	
All Other Treatment Plants													
16	Power	53,435								53,435		53,435	
17	Gas	30,057								30,057		30,057	
18	Chemicals	8,152,183								8,152,183		8,152,183	
19	All Other Costs	14,600,811							2,238,684	16,839,495		16,839,495	
20	Subtotal	22,836,486	0	0	0	0	0	0	2,238,684	25,075,170	0	25,075,170	
21	Subtotal	38,516,369	0	0	0	0	0	0	3,723,643	42,240,012	0	42,240,012	
Treated Water Power & Pumping													
Baxter Treatment Plant - L.S.													
22	Power	652,240								652,240		652,240	
23	Gas	0								0		0	
24	All Other Costs	760,342							51,478	811,820		811,820	
25	Subtotal	0	1,412,582	0	0	0	0	0	51,478	1,464,060	0	1,464,060	
All Other Pumping													
26	Power	4,515,954								4,515,954		4,515,954	
27	Gas	373,001								373,001		373,001	
28	All Other Costs	5,319,312							360,138	5,679,450		5,679,450	
29	Subtotal	0	10,208,267	0	0	0	0	0	360,138	10,568,405	0	10,568,405	
	Subtotal	0	11,620,849	0	0	0	0	0	411,616	12,032,465	0	12,032,465	
30	Total Supply & Treatment	38,516,369	16,366,379	0	0	0	0	0	4,245,310	59,128,058	0	59,128,058	
DISTRIBUTION													
31	Filtered Water Storage		87,018	980,240			0		12,987	1,080,245		1,080,245	
32	High Pressure Fire System		1,027	0			0		69	1,096		1,096	
Transmission & Distribution Mains													
33	Small Mains (Less than 24")		1,717,712	19,349,748			0		256,352	21,323,812		21,323,812	
34	Large Mains (24" & Over)		630,243	7,099,589			0		94,057	7,823,889		7,823,889	
35	Subtotal	0	2,347,955	26,449,337	0	0	0	0	350,409	29,147,701	0	29,147,701	

36	Fire Hydrants	133,751	1,506,684			0		19,960	1,660,395	1,660,395		
37	Meters		925,784			0		12,264	938,048	938,048		
38	Total Distribution	0	2,569,751	29,862,045	0	0	0	395,689	32,827,485	0	32,827,485	
39	CUSTOMER ACCT. & COLLECTION					6,813,804		0	6,813,804	6,813,804	Operations Meter Shop and Custom	
40	WARRANTY PROGRAM					0			0	0		
41	ADMINISTRATIVE & GENERAL								0	8,623,053	8,623,053	Operations Admin
42	TOTAL O & M	38,516,369	18,936,130	29,862,045	0	6,813,804	0	0	4,640,999	98,769,347	8,623,053	107,392,400
		38,516,368	18,936,131	29,862,045	0	6,813,804	0	0	4,640,999	98,769,347	8,623,053	107,392,399
		Agrees with Womallo-4	Agrees with Womallo-4	Agrees with Womallo-4	Agrees with Womallo-4	Agrees with Womallo-5	Agrees with Womallo-5	Agrees with Womallo-5	Agrees with Womallo-5	Agrees with sum of Columns (1) through (8)	Agrees with Womallo-5	Agrees with Womallo-5

- (a) Includes Treatment Headquarters.
- (b) Includes Conveyance Headquarters, Load Control, Distribution, E & S Services, and Pumping.
- (c) Includes Meter Expense.
- (d) NA.
- (f) Includes Security, Operations Admin. & a portion of Auto Maint. Total prorated on basis of all other expense excluding power & chemicals.
- (g) NA
- (i) Load Control distribution costs are allocated between categories based on col (3). HP Fire system includes Power, All Other, and a share of Distribution costs.
- (j) E&SS is no longer a budget cost center.

Transmission & Distribution Mains												
	Small Mains (Less than 36")	1,917,198	22,423,410			0		297,071	24,637,679	24,637,679		
	Large Mains (36" & Over)	438,895	5,133,285			0		68,007	5,640,187	5,640,187		
	Subtotal	2,356,093	27,556,695			0		365,078	30,277,866	0	30,277,866	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)					DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a
ADHR - Administrative & Human Resources O&M	P.N. 135647.0100					February 11, 2018 11:47 p.m.						Womallo-12
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
	Treatment Plants \$	Load Control \$	Distribution \$	E&SS \$	Customer Service \$	Automotive Maint. \$	Building Maint. \$	Materials Mgmt. (d) \$	TOTAL Personal Srv & Fringe Bft Class100 \$	Admin. & Human Resources \$		
	Womallo-4	Womallo-6	Womallo-7	Womallo-4	Womallo-5	Womallo-5	Womallo-5	Womallo-5		Womallo-2		
SUPPLY & TREATMENT												
Source of Supply												
Raw Water Power & Pumping												
Baxter Treatment Plant												
Power												
Gas												
All Other Costs												
Subtotal	0	319,815	0	0	0	0	0	9,665	329,480	40,855		
All Other Treatment Plants												
Power												
Gas												
All Other Costs												
Subtotal	0	1,018,670	0	0	0	0	0	30,787	1,049,457	130,131		
Subtotal	0	1,338,485	0	0	0	0	0	40,452	1,378,937	170,986		
Treatment												
Purification												
Baxter Treatment Plant												
Power												
Gas												
Chemicals												
All Other Costs												
Subtotal	6,056,079	0	0	0	0	0	0	545,838	6,601,917	818,624		
Subtotal	6,056,079	0	0	0	0	0	0	545,838	6,601,917	818,624		
All Other Treatment Plants												
Power												
Gas												
Chemicals												
All Other Costs												
Subtotal	11,806,071	0	0	0	0	0	0	822,891	12,628,962	1,565,966		
Subtotal	11,806,071	0	0	0	0	0	0	822,891	12,628,962	1,565,966		
Subtotal	17,862,150	0	0	0	0	0	0	1,368,729	19,230,879	2,384,590		
Treated Water Power & Pumping												
Baxter Treatment Plant - L.S.												
Power												
Gas												
All Other Costs												
Subtotal	0	626,093	0	0	0	0	0	18,922	645,015	79,981		
Subtotal	0	626,093	0	0	0	0	0	18,922	645,015	79,981		
All Other Pumping												
Power												
Gas												
All Other Costs												
Subtotal	0	4,380,112	0	0	0	0	0	132,379	4,512,491	559,540		
Subtotal	0	4,380,112	0	0	0	0	0	132,379	4,512,491	559,540		
Subtotal	0	5,006,205	0	0	0	0	0	151,301	5,157,506	639,521		
Total Supply & Treatment	17,862,150	6,344,690	0	0	0	0	0	1,560,482	25,767,322	3,195,097		
DISTRIBUTION												
Filtered Water Storage												
		71,682	929,067					4,774	1,005,523	124,683		
High Pressure Fire System												
		0	0					25	25	3		
Transmission & Distribution Mains												
Small Mains (Less than 24")												
		1,414,991	18,339,567					94,230	19,848,788	2,461,208		
Large Mains (24" & Over)												
		519,172	6,728,945					34,573	7,282,690	903,039		
Subtotal	0	1,934,163	25,068,512	0	0	0	0	128,803	27,131,478	3,364,247		

Fire Hydrants		110,179	1,428,025			0	7,337	1,545,541	191,644	
Meters			877,452			0	4,508	881,960	109,361	
Total Distribution	0	2,116,024	28,303,056	0	0	0	0	145,447	30,564,527	3,789,938
CUSTOMER ACCT. & COLLECTION					1,478,137		0	1,478,137	183,286	
ADMINISTRATIVE & GENERAL							0	0	0	
TOTAL O & M	17,862,150	8,460,714	28,303,056	0	1,478,137	0	0	1,705,929	57,809,986	7,168,321
	17,862,150	8,460,715	28,303,056	0	1,478,137	0	0	1,705,929	57,809,987	7,168,321
	Agrees with Womallo-4	Agrees with Womallo-4	Agrees with Womallo-4	Agrees with Womallo-4	Agrees with Womallo-5	Agrees with Womallo-5	Agrees with Womallo-5	Agrees with Womallo-5	sum of Columns (1) through (8)	Agrees with Womallo-2

- (a) NA.
- (b) NA.
- (c) NA.
- (d) Total of this column is distributed based on distribution shown in column (9), Womallo-11.

Transmission & Distribution Mains										
Small Mains (Less than 36")			21,252,765			0	109,197	21,361,962	2,648,840	
Large Mains (36" & Over)			4,865,295			0	24,998	4,890,293	606,386	
Subtotal	0	0	26,118,060	0	0	0	0	134,195	26,252,255	3,255,226

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
xxxxx - NOT IN USE	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-13

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)					DRAFT - for Discussion Only			Test Year	2019	Budget Yr	2017	Ver. 1a		
ATOM - Allocation of Total O&M Expense		P.N. 135647.0100					February 11, 2018 11:47 p.m.							Womallo-14		
Line No.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		Total Direct Expense	Inter-Departmental Charges (a)	Finance Class 200 Customer	Other Finance (b)	Admin. & Human Resources (c)	Planning & Engineering Watersheds	Planning & Engineering BLS	Planning & Engineering P&R	DOT (d)	Public Affairs (b)	Indemnities	Capital Fringes (270)	WTP Sludge (e)	Total Operation & Maint.	Distribution of Plant Investment
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
		Womallo-11	Womallo-2			Womallo-12	Womallo-15	Womallo-15	Womallo-15	Womallo-15	Womallo-2	Womallo-2	Womallo-2			
SUPPLY & TREATMENT																
1	Source of Supply	0				0										
Raw Water Power & Pumping																
Baxter Treatment Plant																
2	Power	529,583														529,583
3	Gas	0													0	
4	All Other Costs	414,686	25,074		28,193	40,855	21,971	33,016	11,838	70,301	9,339		19,123		674,396	4,566,890
5	Subtotal	944,269	25,074	0	28,193	40,855	21,971	33,016	11,838	70,301	9,339	0	19,123		1,203,979	4,566,890
All Other Treatment Plants																
6	Power	2,589,899														2,589,899
7	Gas	560													560	
8	All Other Costs	1,320,853	79,866		89,799	130,131	69,983	105,163	37,664	223,923	29,745		60,843		2,147,970	14,530,523
9	Subtotal	3,911,312	79,866	0	89,799	130,131	69,983	105,163	37,664	223,923	29,745	0	60,843		4,738,429	14,530,523
10	Subtotal	4,855,581	104,940	0	117,992	170,986	91,954	138,179	49,502	294,224	39,084	0	79,966		5,942,408	19,097,414
Treatment Purification																
Baxter Treatment Plant																
11	Power	26,717														26,717
12	Gas	15,028														15,028
13	Chemicals	7,985,010														7,985,010
14	WTP Sludge													7,485,396		7,485,396
15	All Other Costs	9,138,087	552,537		621,257	818,624	484,166	727,550	472,836	1,549,170	205,787		763,833		15,333,847	182,417,739
16	Subtotal	17,164,842	552,537	0	621,257	818,624	484,166	727,550	472,836	1,549,170	205,787	0	763,833	7,485,396	30,845,998	182,417,739
All Other Treatment Plants																
17	Power	53,435														53,435
18	Gas	30,057														30,057
19	Chemicals	8,152,183														8,152,183
20	WTP Sludge													5,942,604		5,942,604
21	All Other Costs	16,839,495	1,018,204		1,144,840	1,565,966	892,212	1,340,716	522,258	2,854,781	379,220		843,671	5,942,604	27,401,363	201,484,420
22	Subtotal	25,075,170	1,018,204	0	1,144,840	1,565,966	892,212	1,340,716	522,258	2,854,781	379,220	0	843,671	5,942,604	41,579,642	201,484,420
23	Subtotal	42,240,012	1,570,741	0	1,766,097	2,384,590	1,376,378	2,068,266	995,094	4,403,951	585,007	0	1,607,504	13,428,000	72,425,640	383,902,159
Treated Water Power & Pumping																
Baxter Treatment Plant - L.S.																
24	Power	652,240														652,240
25	Gas	0													0	
26	All Other Costs	811,820	49,087		55,192	79,981	43,013	64,635	23,155	137,627	18,282		37,406		1,320,198	8,933,136
27	Subtotal	1,464,060	49,087	0	55,192	79,981	43,013	64,635	23,155	137,627	18,282	0	37,406		1,972,438	8,933,136
All Other Pumping																
28	Power	4,515,954														4,515,954
29	Gas	373,001														373,001
30	All Other Costs	5,679,450	343,409		386,120	559,540	300,916	452,183	162,041	962,831	127,899		261,765		9,236,154	62,514,463
31	Subtotal	10,568,405	343,409	0	386,120	559,540	300,916	452,183	162,041	962,831	127,899	0	261,765		14,125,109	62,514,463
	Subtotal	12,032,465	392,496	0	441,312	639,521	343,929	516,818	185,196	1,100,458	146,181	0	299,171	Womallo-16	16,097,547	71,447,600
32	Total Supply & Treatment	59,128,058	2,068,177	0	2,325,401	3,195,097	1,812,261	2,723,263	1,229,792	5,798,633	770,272	0	1,986,641	13,428,000	94,465,595	474,447,172

DISTRIBUTION

33	Filtered Water Storage	1,080,245	65,317	73,441	124,683	57,235	86,006	76,174	183,133	24,327	123,054	1,893,615	29,387,523
34	High Pressure Fire System	1,096	66	75	3	58	87	0	186	25	0	1,596	
Transmission & Distribution Mains													
35	Small Mains (Less than 24")	21,323,812	1,289,350	1,449,707	2,461,208	1,129,804	1,697,745	1,504,533	3,615,000	480,203	2,430,469	37,381,831	580,441,365
36	Large Mains (24" & Over)	7,823,889	473,073	531,911	903,039	414,535	622,917	552,109	1,326,375	176,191	891,893	13,715,932	213,000,854
37	Subtotal	29,147,701	1,762,423	0	1,981,618	3,364,247	1,544,339	2,320,662	2,056,642	4,941,375	656,394	0	51,097,763
38	Fire Hydrants	1,660,395	100,396	112,883	191,644	87,973	132,196	23,847	281,485	37,392	38,523	2,666,734	9,200,000
39	Meters	938,048	56,719	63,774	109,361	49,701	74,685	72,002	159,026	21,125	116,314	1,660,755	27,777,986
40	Total Distribution	32,827,485	1,984,921	0	2,231,791	3,789,938	1,739,306	2,613,636	2,228,665	5,565,205	739,263	0	57,320,463
41	CUSTOMER ACCT. & COLLECTION	6,813,804	10,818,044	0	463,239	183,286	361,018	542,497	0	2,725,862	1,069,332	0	22,977,082
42	WARRANTY PROGRAM	0											0
43	ADMINISTRATIVE & GENERAL	8,623,053	521,395	586,242	0	456,878	686,545	242,214	1,461,857	5,295,258	2,151,987	391,279	20,416,708
44	TOTAL O & M	107,392,400	15,392,537	0	5,606,673	7,168,321	4,369,463	6,565,941	3,700,671	15,551,557	7,874,125	2,151,987	195,179,848
		107,392,399	15,392,538	0	5,606,673	7,168,321	4,369,463	6,565,941	3,700,671	15,551,557	7,874,125	2,151,987	195,179,848
	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with	Agrees with
	Womallo-2	footnote (a)	Womallo-2	Womallo-2	Womallo-2	Womallo-9	Womallo-9	Womallo-9	Womallo-9	Womallo-2	Womallo-2	Womallo-2	Womallo-2

(a) WRB expense 100% Customer (Line 41), 40% Public Properties to Customer (Line 41), all other prorated on basis of direct expenses excluding power & chemicals, Cust. Acc't. and Collection, and WTP Sludge (Lines 14 and 20).

	Direct Womallo-2	Fringe Benefits Womallo-2	Total	% Retail Only	Retail Only	All Other	
WRB Expense	5,158,317	2,610,064	7,768,381	100%	7,768,381	(0)	47,027,742
All Other Expenses							51,863,854
Public Properties	6,917,764	706,394	7,624,158	40%	3,049,663	4,574,495	76,882,079
All Other	0	(0)	(0)	0%	0	(0)	175,773,675
			15,392,538		10,818,044	4,574,494	

(b) Prorated on basis of direct expense excluding power & chemicals and WTP Sludge (Lines 14 and 20).

(c) Prorated on basis of direct expense for Class 100 from Womallo-12.

(d) Customer billing expense 100% Customer (Line 41), all other prorated on basis of direct expense excluding power & chemicals, Cust. Acc't. and Collection, and WTP Sludge (Lines 14 and 20).

(e) Prorate Water Treatment Plant Sludge costs to the Baxter Plant and All Other Treatment Plants on the basis of average day production from Wpltalto-4.

Transmission & Distribution Mains													
Small Mains (Less than 36")	24,637,679	1,481,525	1,666,543	2,648,840	5,352,336							35,786,923	
Large Mains (36" & Over)	5,640,187	339,159	381,514	606,386	1,225,285							8,192,531	
Subtotal	30,277,866	1,820,684	2,048,057	3,255,226	6,577,621	0	0					43,979,454	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
xxxxx - NOT IN USE	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-15

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
OMALLO - Allocation of O&M Expense - Table	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-16

TABLE W-10
ALLOCATION OF TEST YEAR WATER OPERATION AND MAINTENANCE EXPENSE
TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2019

Line No.	Description	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Test Year Operation & Maintenance Expense	Base	Extra Capacity Maximum Day	Extra Capacity In Excess of Maximum Day	Meters	Customer Costs Billing	Warranty	Direct Standard Pressure	High Pressure	Wholesale Direct	Allocation Basis			Aqua PA
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	Base	Max Day	Max Hour	\$
		Womallo-15													
		Womallo-18													
		Womallo-15, Womallo-18													
		Womallo-18													
	Raw Water Pumping														
1	Purchased Power	3,119,000	2,925,000	154,000							40,000	95.00%	5.00%		40,000
2	Purchased Gas	1,000	1,000	0						0		71%	29%		0
3	Other	2,822,000	1,965,000	802,000						55,000		71%	29%		55,000
4	Total Raw Water Pumping	5,942,000	4,891,000	956,000						95,000					95,000
	Purification and Treatment Power and Pumping (a)														
5	Purchased Power	5,168,000	4,592,000	255,000	255,000					66,000	90.00%	5.00%	5.00%		66,000
6	Purchased Gas	373,000	195,000	48,000	125,000					5,000	53%	13%	34%		5,000
7	Other	10,556,000	5,486,000	1,346,000	3,518,000					206,000	53%	13%	34%		206,000
	Treatment														
8	Purchased Power	80,000	71,000	4,000	4,000					1,000	90.00%	5.00%	5.00%		1,000
9	Purchased Gas	45,000	31,000	13,000	0					1,000	71%	29%			1,000
10	Chemicals	16,137,000	15,930,000							207,000	100.00%				207,000
	Other														
	Other	42,735,000	29,750,000	12,152,000						833,000	71%	29%			833,000
	Water Treatment Plant Sludge	13,428,000	13,212,000							216,000	100.00%				216,000
	Other (b)	56,163,000	42,962,000	12,152,000						1,049,000					1,049,000
11	Total Purification and Treatment	88,522,000	69,267,000	13,818,000	3,902,000					1,535,000					1,535,000
	Transmission and Distribution														
13	Mains	51,098,000	26,928,000	6,605,000	17,275,000					290,000	53%	13%	34%		290,000
14	Meters	1,661,000				1,661,000				0	100% Meters				0
15	Hydrants	2,667,000						2,667,000		0	100% Standard Pressure Fire				0
16	Filtered Water Storage	1,894,000	983,000	241,000	630,000					40,000	53%	13%	34%		40,000
17	High Pressure Fire System	2,000							2,000	0	100% High Pressure Fire				0
18	Total Transmission and Distribution	57,322,000	27,911,000	6,846,000	17,905,000	1,661,000		2,667,000	2,000	330,000					330,000
19	Customer Accounting and Collection	22,977,000					22,977,000			0	100% Billing				0
20	Warranty Program	0						0							
21	Subtotal	174,763,000	102,069,000	21,620,000	21,807,000	1,661,000	22,977,000	0	2,667,000	2,000	1,960,000				1,960,000
22	Administrative and General	20,417,000	9,746,000	3,165,000	3,206,000	249,000	3,439,000	0	399,000	0	213,000	Line 17 less power, chem., treatment plant sludge			213,000
23	Subtotal Water Operating Expense	195,180,000	111,815,000	24,785,000	25,013,000	1,910,000	26,416,000	0	3,066,000	2,000	2,173,000				2,173,000
24	Residual Fund Deposit	3,851,000	2,206,000	489,000	494,000	38,000	521,000	0	60,000	0	43,000	Line 19			43,000
25	Deposit (from) to RSF	(3,134,000)	(1,795,000)	(398,000)	(402,000)	(31,000)	(424,000)	0	(49,000)	0	(35,000)	Line 19			(35,000)
26	Total Water Operating Expense	195,897,000	112,226,000	24,876,000	25,105,000	1,917,000	26,513,000	0	3,077,000	2,000	2,181,000				2,181,000
27	Adjustment for Wholesale Contracts	0	0	0	0	0	0	0	0	0	0	Not Required for current analysis			0
	Other Operating Revenue														
28	Allocable to Wholesale	3,170,000	1,816,000	403,000	406,000	31,000	429,000	0	50,000	0	35,000	Line 19			35,000
29	Non-Allocable to Wholesale	6,219,000	3,602,000	799,000	806,000	62,000	851,000	0	99,000	0	0	Line 19 less wholesale			0
30	Other Operating Revenue	9,389,000	5,418,000	1,202,000	1,212,000	93,000	1,280,000	0	149,000	0	35,000				35,000
31	Interest Income	356,000	204,000	45,000	46,000	3,000	48,000	0	6,000	0	4,000	Line 19			4,000
32	Total Operating Expense Less Other Operating Revenue	186,152,000	106,604,000	23,629,000	23,847,000	1,821,000	25,185,000	0	2,922,000	2,000	2,142,000				2,142,000
			57.3%	12.7%	12.8%	1.0%	13.5%	0.0%	1.6%	0.0%	1.2%				

(a) Includes booster pumping.
 (b) Includes wastewater utility cost of treating water treatment plant sludge of \$13,428,000.

Line 23 Less power, chemicals, and WTP sludge	136,412,000	65,112,000	21,146,000	21,423,000	1,661,000	22,977,000	0	2,667,000	2,000	1,424,000
CHECK OF TOTAL O&M PRIOR TO CREDIT FOR OTHER REVENUE:										
Subtotal Direct and Allocated Operations O&M from TYOME		76,882,000	Womallo-2							
Subtotal Fringe Benefits from TYOME		53,006,000	Womallo-2							
Subtotal Interdepartmental, Finance, A&HR, etc. from TYOME		51,864,000	Womallo-2							
Plus Water Treatment Plant Sludge		13,428,000	Above							
		<hr/>								
Total Power, Gas & Chemicals	24,923,000	195,180,000	Agrees with line 23							

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ATACC - Allocated Treatment & Conveyance Costs	P.N. 135647.0100	February 11, 2018 11:47 p.m.					Womallo-17

	Total Test Year Water Use Mcf	Average Daily Water Use Mcf/day	Maximum Day Extra Capacity			Maximum Hour Extra Capacity			Average Day mgd	Average Day w/losses mgd	Max Day mgd	Max Hour Mcf/day		
			Capacity Factor %	Total Capacity Mcf/day	Extra Capacity (a) Mcf/day	Capacity Factor %	Total Capacity Mcf/day	Extra Capacity (b) Mcf/day						
													Approach	Aqua
TREATMENT PLANT:														
1) Allocation of Personal Services, Materials & Supplies and Equipment (excluding Power & Chemicals)														
Retail	6,121,100	16,780		33,080	16,300		55,690	22,610	Units-2		125.51		247.44	416.56
Bucks County	0	0		0	0		0	0	Womallo-13	Woltallo-4	0.00		0.00	0.00
Aqua PA	100,000	274		658	384		1,203	545	Retcos-6		2.05		4.92	9.00
Total	6,221,100	17,054		33,738	16,684		56,893	23,155			127.56	182.23	252.36	425.56
	1.607%	1.607%		1.950%	2.302%		2.114%	2.354%						
		0.000%		0.000%			0.000%							
2) Allocation of Power and Chemicals:														
Retail	6,121,100	16,780		33,080	16,300		55,690	22,610	Units-2					
Bucks County	0	0							Womallo-13					
Aqua PA		1.285%	See Box 2 on Retcos-6											
WATER CONVEYANCE SYSTEM:														
(Load Control)														
1) Raw Water Pumping Power (based on annual use)														
Retail	6,121,100	16,780		33,080	16,300		55,690	22,610	Units-2					
Bucks County														
Aqua PA														
2) Treated Water Pumping Power														
Retail	6,121,100	16,780		33,080	16,300		55,690	22,610	Units-2					
Bucks County														
Aqua PA														
3) All Other Expense														
Raw Water														
Retail	6,121,100	16,780		33,080	16,300		55,690	22,610	Units-2					
Bucks County														
Aqua PA														
Treated Water														
Retail	6,121,100	16,780		33,080	16,300		55,690	22,610	Units-2					
Bucks County														
Aqua PA														

AQUA PA
ALLOCATION OF TEST YEAR WATER OPERATION AND MAINTENANCE EXPENSE
TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2019

Line No.	Description	(1) Test Year Operation & Maintenance Expense \$ <u>Womallo-16</u>	(2) Allocable	(3)	(4) Aqua PA Total \$ (2) x (3)	(5) Adjustment	(6) Aqua PA Total \$	(7) USE Aqua PA Total \$
1	Raw Water Pumping							
	Purchased Power	3,119,000	3,119,000	1.29%	40,000		40,000	
2	Purchased Gas	1,000	1,000	1.29%	0		0	
3	Other	2,822,000	2,822,000	1.95%	55,000		55,000	
4	Total Raw Water Pumping	5,942,000	5,942,000	1.60%	95,000		95,000	
	Purification and Treatment							
	Power and Pumping (a)							
5	Purchased Power	5,168,000	5,168,000	1.29%	66,000		66,000	
6	Purchased Gas	373,000	373,000	1.29%	5,000		5,000	
7	Other	10,556,000	10,556,000	1.95%	206,000		206,000	
	Treatment							
8	Purchased Power	80,000	80,000	1.29%	1,000		1,000	
9	Purchased Gas	45,000	45,000	1.29%	1,000		1,000	
10	Chemicals	16,137,000	16,137,000	1.29%	207,000		207,000	
	Other							
	Other	42,735,000	42,735,000	1.95%	833,000		833,000	
	Water Treatment Plant Sludge	13,428,000	13,428,000	1.61%	216,000		216,000	
11	Other (b)	56,163,000	56,163,000	1.87%	1,049,000	0	1,049,000	0
12	Total Purification and Treatment	88,104,000	88,104,000	1.74%	1,529,000	0	1,530,000	0
	Transmission and Distribution							
13	Mains	51,098,000	13,716,000	2.11%	290,000		290,000	
14	Meters	1,661,000	-				0	
15	Hydrants	2,667,000	-				0	
16	Filtered Water Storage	1,894,000	1,894,000	2.11%	40,000		40,000	
17	High Pressure Fire System	2,000	-				0	
18	Total Transmission and Distribution	57,322,000	15,610,000	2.11%	330,000	0	330,000	0
19	Customer Accounting and Collection	22,977,000					0	
20	Warranty Program	0						
21	Subtotal	174,345,000	109,656,000	1.78%	1,954,000	0	1,955,000	0
22	Administrative and General	20,417,000	10,735,000	1.99%	213,000		213,000	
23	Subtotal Water Operating Expense	194,762,000	120,391,000	1.80%	2,167,000	0	2,168,000	0
24	Adjustment for Wholesale Contracts	0	0		0		0	
25	Residual Fund Deposit	3,851,000	2,380,000	1.80%	43,000		43,000	
26	Deposit (from) to RSF	(3,134,000)	(1,937,000)	1.80%	(35,000)		(35,000)	
27	Total Water Operating Expense	195,479,000	120,834,000	1.80%	2,175,000	0	2,176,000	0
	Other Operating Revenue							
	Miscellaneous	3,170,000	3,170,000	1.10%	35,000		35,000	
	All Other	6,219,000	6,219,000	0.00%	0		0	
28	Other Operating Revenue	9,389,000	9,389,000	0.37%	35,000	0	35,000	0
29	Non-Operating Income	356,000	356,000	1.12%	4,000		4,000	
30	Total Operating Expense Less Other Operating Revenue	185,734,000	111,089,000	1.92%	2,136,000	0	2,137,000	0

(a) Includes booster pumping.
(b) Includes wastewater utility cost of treating water treatment plant sludge of \$13,428,000.

Line 21	Less power, chemicals, and WTP sludge	136,412,000	71,723,000	1.99%	1,424,000		1,424,000	
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WCOS17_19.XLS

RETCOS

Description of Worksheet:

This worksheet allocates the retail cost of service to retail customer classes.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RetInd - Index	P.N. 135647.0100	February 11, 2018 11:50 p.m.			Retcos-1

The "Retcos" worksheet develops unit costs of service and allocates the retail cost of service among retail customer types. It also develops wholesale cost of service water rates for Bucks County and Aqua PA.

Range	Description	Page Number	Table
RetInd	Index	Retcos-1	
UCOS	Unit Cost of Service	Retcos-2	TABLE W-14
ACOS	Allocated Cost of Service to Customer Types	Retcos-3	TABLE W-15
ADJCOS	Adjusted Cost of Service to Customer Types	Retcos-4	TABLE W-16
BCPC	Bucks County Proposed Charges	Retcos-5	
PSWCRate	Aqua PA Proposed Rates	Retcos-6	TABLE W-13A

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
ACOS - Allocated Cost of Service to Customer Types	P.N. 135647.0100	February 11, 2018 11:50 p.m.			Retcos-3

Select Public Fire Recovery Basis
0 1

TABLE W-15
 ALLOCATED COST OF SERVICE TO RETAIL CUSTOMER CLASSES
 TEST YEAR 2019

Reference	Line No.	Description	(1) Total Allocated Cost of Service \$	(2) Base \$	Extra Capacity		Customer Costs			(8) Direct Public Fire Protection \$	Reallocate Public Fire Protection on Base \$	Reallocate Public Fire Protection on Meters \$	Total Allocated Cost of Service \$
					(3) Max Day \$	(4) Max Hour In Excess of Max Day \$	(5) Meters \$	(6) Billing \$	(7) Warranty Program \$				
Retcos-2	1	Total Retail Unit Costs of Service		25,2893	2,352,2532	1,887,4347	7,8788	4,0250	0,0000		0,0000	14,0086	
		Residential											
Units-2	2	Units of Service		3,158,500	8,650	13,840	442,037	5,022,020	417,539		3,158,500	442,037	
Line 1 x Line 2	3	Allocated Cost of Service -	150,042,000	79,876,000	20,347,000	26,122,000	3,483,000	20,214,000	0		0	6,193,000	156,235,000
		CHECK	150,042,000	79,876,254									
		Senior Citizens											
Units-2	4	Units of Service		115,500	320	510	21,405	256,680	21,391		115,500	21,405	
Line 1 x Line 4	5	Allocated Cost of Service -	5,839,000	2,921,000	753,000	963,000	169,000	1,033,000	0		0	300,000	6,139,000
		Commercial											
Units-2	6	Units of Service		1,531,100	3,350	3,560	108,383	512,963	36,474		1,531,100	108,383	
Line 1 x Line 6	7	Allocated Cost of Service -	56,238,000	38,720,000	7,880,000	6,719,000	854,000	2,065,000	0		0	1,518,000	57,756,000
		Industrial											
Units-2	8	Units of Service		93,100	160	100	5,582	17,992	1,143		93,100	5,582	
Line 1 x Line 8	9	Allocated Cost of Service -	3,035,000	2,354,000	376,000	189,000	44,000	72,000	0		0	78,000	3,113,000
		Public Utilities											
Units-2	10	Units of Service		10,800	20	10	1,295	2,971	141		10,800	1,295	
Line 1 x Line 10	11	Allocated Cost of Service -	361,000	273,000	47,000	19,000	10,000	12,000	0		0	18,000	379,000
		Housing Authority											
Units-2	12	Units of Service		166,200	410	570	9,241	73,024	5,738		166,200	9,241	
Line 1 x Line 15	13	Allocated Cost of Service -	6,610,000	4,203,000	964,000	1,076,000	73,000	294,000	0		0	129,000	6,739,000
		Charities & Schools											
Units-2	14	Units of Service		189,200	420	460	20,369	52,800	2,254		189,200	20,369	
Line 1 x Line 16	15	Allocated Cost of Service -	7,014,000	4,785,000	988,000	868,000	160,000	213,000	0		0	285,000	7,299,000
		Hospital/University											
Units-2	16	Units of Service		290,900	640	420	11,327	20,570	235		290,900	11,327	
Line 1 x Line 18	17	Allocated Cost of Service -	9,827,000	7,357,000	1,505,000	793,000	89,000	83,000	0		0	159,000	9,986,000
		Hand Billed											
	18	Units of Service		554,400	1,220	1,360	6,417	11	0		554,400	6,417	
	19	Allocated Cost of Service -	19,508,000	14,020,000	2,870,000	2,567,000	51,000	0	0		0	90,000	19,598,000
		xxxxxxx											
Units-2	20	Units of Service		0	0	0	0	0	0		0	0	
Line 1 x Line 20	21	Allocated Cost of Service -	0	0	0	0	0	0	0		0	0	0
		Scheduled (Flat Rate)											
Units-2	22	Units of Service		0	0	0	3	36	3		0	3	
Line 1 x Line 22	23	Allocated Cost of Service -	0	0	0	0	0	0	0		0	0	0
		xxxxxxx											
Units-2	18	Units of Service		0	0	0	0	0	0		0	0	
Line 1 x Line 24	19	Allocated Cost of Service -	0	0	0	0	0	0	0		0	0	0

		Public Fire Protection											
		Standard Pressure											
Units-2	20	Units of Service	0	980	1,570	0	0	0	0	0	0	0	0
Line 1 x Line 26	21	Allocated Cost of Service - High Pressure	8,816,000	0	2,305,000	2,963,000	0	0	0	3,548,000	0	(8,816,000)	0
	22	Units of Service											
Line 1 x Line 28	23	Allocated Cost of Service -	2,000	0	0	0	0	0	0	2,000	0	(2,000)	0
		Private Fire Protection											
Units-2	24	Units of Service		11,400	130	210	3,412	298,089	0		11,400	3,412	
Line 1 x Line 30	25	Allocated Cost of Service -	2,217,000	288,000	306,000	396,000	27,000	1,200,000	0		0	48,000	2,265,000
	26	Total Retail Cost of Service -	269,509,000	154,797,000	38,341,000	42,675,000	4,960,000	25,186,000	0	3,550,000	0	0	269,509,000
		Agrees with Retcos-2											
		CHECK	269,509,000	269,509,000		0							

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ADJICOS - Adjusted Cost of Service to Customer Types	P.N. 135647.0100	February 11, 2018 11:50 p.m.					Retcos-4
Housing Authority discount:	0.05						
Senior Citizens, "6 cent" charities, "N" charities discount:	0.25						

TABLE W-16

**WATER: TEST YEAR ADJUSTED COST OF SERVICE
TEST YEAR 2019**

Line No.	Customer Class	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Recovery of Discount				Adjusted Cost of Service	Percent Change	
		Allocated Cost of Service \$	Reallocation of HP Fire System \$	Discount \$	Cost of Service w Discount \$	Recovery of Discount \$	Adjusted Cost of Service \$	Percent Change %	Residential \$	Non-Res \$	All \$	Total \$	\$	%	
		Retcos-3		((1)+(2)) x 25.00%	(1) - (2)										
1	Residential	156,235,000	0		156,235,000	3,675,000	159,910,000	2.35%			1,110,730	1,110,730	157,345,730	0.71%	
2	Senior Citizens	6,139,000	0	1,535,000	4,604,000	108,000	4,712,000	-23.24%			32,731	32,731	4,636,731	-24.47%	
3	Commercial	57,756,000	0		57,756,000	1,359,000	59,115,000	2.35%	2,435,901	410,608	2,846,509	2,846,509	60,602,509	4.93%	
4	Industrial	3,113,000	0		3,113,000	73,000	3,186,000	2.35%	131,293	22,131	153,424	153,424	3,266,424	4.93%	
5	Public Utilities	379,000			379,000	9,000	388,000	2.37%	15,985	2,694	18,679	18,679	397,679	4.93%	
6	Housing Authority	6,739,000	0	337,000	6,402,000	151,000	6,553,000	-2.76%	270,009	45,514	315,523	315,523	6,717,523	-0.32%	
	Charities and Schools														
7	Charities & Schools	7,299,000	0	1,825,000	5,474,000	129,000	5,603,000	-23.24%	230,870	38,917	269,787	269,787	5,743,787	-21.31%	
8	Hospital/University	9,986,000	0	2,497,000	7,489,000	176,000	7,665,000	-23.24%	315,854	53,242	369,096	369,096	7,858,096	-21.31%	
9	Subtotal Charities and Schools	17,285,000	0	4,322,000	12,963,000	305,000	13,268,000	-23.24%	0	546,724	92,159	638,883	13,601,883	-21.31%	
10	Hand Billed	19,598,000			19,598,000	461,000	20,059,000		826,560	139,329	965,889	965,889	20,563,889	4.93%	
11	xxxxxxxxxx	0			0	0	0	0.00%	0	0	0	0	0	0.00%	
12	Scheduled (Flat Rate)	0			0	0	0	0.00%	0	0	0	0	0	0.00%	
13	xxxxxxxxxx	0	0		0	0	0	0.00%	0	0	0	0	0	0.00%	
	Fire Protection														
14	Private	2,265,000			2,265,000	53,000	2,318,000	2.34%	95,528	16,103	111,631	111,631	2,376,631	4.93%	
	Public														
15	Standard Pressure	0			0	0	0	0.00%	0	0	0	0	0	0.00%	
16	High Pressure	0	0		0	0	0	0.00%	0	0	0	0	0	0.00%	
17	Subtotal Public Fire Protection	0	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	
18	Subtotal Retail Service	269,509,000	0	6,194,000	263,315,000	6,194,000	269,509,000	0.00%	0	4,322,000	1,872,000	6,194,000	269,509,000	0.00%	
19	Wholesale (a)	3,759,000			3,759,000		3,759,000	0.00%							
20	Total System	273,268,000	0	6,194,000	267,074,000	6,194,000	273,268,000	0.00%	0	4,322,000	1,872,000	6,194,000	269,509,000		
	Cost of Service Check	273,272,848													
	Difference	4,848	Disagrees with total system above												

(a) Includes Management Fee revenue.

A lag factor is applied to all wholesale customer rates equal to 1.0000
 Months in effective test year: 1.00 Months to collect COS: 1.00

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
BCPC - Bucks County Proposed Charges	P.N. 135647.0100	February 11, 2018 11:50 p.m.					Retcos-5

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	TY Rates						
Fiscal Year	Annual Usage Mcf	Annual Usage Mgd	Max. Hr. Usage Mgd	Fixed Charge \$	Commodity Charge \$	Demand Charge \$	Total Charge \$
	Wpitallo-4	Col. (1)	Wpitallo-4	Retcos-4	Col. (2)*	Col. (3)*	
					\$0	\$0	
					/mgd	/mgd	
2015	0	0.0	0.0	0	0	0	0
2016	0	0.0	0.0	0	0	0	0
2017	0	0.0	0.0	0	0	0	0
2018	0	0.0	0.0	0	0	0	0
2019	0	0.0	0.0	0	0	0	0
2020	0	0.0	0.0	0	0	0	0
2021	0	0.0	0.0	0	0	0	0
2022	0	0.0	0.0	0	0	0	0
2023	0	0.0	0.0	0	0	0	0
2024	0	0.0	0.0	0	0	0	0

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
PSWCRate - Aqua PA Proposed Rates	P.N. 135647.0100	February 11, 2018 11:50 p.m.			Retcos-6

Aqua PA Rate	
Raw Water Pumping Purchased Power	40,000
Purification & Treatment Power & Pump Purchased Power	66,000
Treatment Purchased Power	1,000
Treatment Purchased Gas	1,000
Chemicals	207,000
Total Variable O&M	315,000
Volume - mgd	2.0
Volume (1,000 gal)	748,051
Commodity Charge	0.421
Total O&M	2,137,000
Variable O&M	(315,000)
Fixed O&M	1,822,000
Capital	
Depr	292,000
Return	989,000
Demand - mgd	4.92
Total Fixed - \$/yr	3,103,000
Total Fixed - \$/mo	258,583
Adjustment for Contract	0 Not Required for Current Analysis

Aqua PA Use and Demand Assumptions (Reference: Based on JRM Calcs Dated 12/1/00 and Aqua PA Contract) Contract Capacities					Aqua PA Use and Demand Assumptions Projected Demand (Current Use)				
	FY 2018	FY 2019	FY 2020	FY 2021		FY 2018	FY 2019	FY 2020	FY 2021
	1	2	3	4		1	2	3	4
Average Day - mgd	6.50	6.50	6.50	6.50	Average Day - mgd	2.05	2.05	2.05	2.05
Max Day - mgd	9.50	9.50	9.50	9.50	Max Day - mgd	4.92	4.92	4.92	4.92
Max Hour - mgd	11.25	11.25	11.25	11.25	Max Hour - mgd	9.00	9.00	9.00	9.00

BOX 2 - MODIFICATION OF AQUA PA RATE FOR WATER LOSS
 Per JRM Letter of 11/01/2002, the methodology for calculating the commodity charge is modified to acknowledge that the amount of system water loss attributable to Aqua PA should be limited. Per the 11/01/2002 letter, Aqua PA's allowance for water loss is limited to 20%.
 Commodity rate calculation is then:
 Total projected cost of Power, Gas & Chemicals 24,923,000
 Total Metered Water Usage 127.57 mgd
 Water Loss allowance 20%
 Commodity Charge = 0.428

WCOS17_19.XLS

RATES

Description of Worksheet:
 This worksheet develops retail water volume COS rates.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RatesInd - Index	P.N. 135647.0100	February 11, 2018 11:54 p.m.					Rates-1

The "Rates" worksheet develops retail cost of service rates before recognizing billing lag and rate implementation refinements.

Range	Description	Page Number	Table
RatesInd	Index	Rates-1	
ADJC	Adjusted COS by Class	Rates-2	
COSR	COS Rates	Rates-3	
BILLCOS	Billings Under COS Rates	Rates-4	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
ADJC - Adjusted COS by Class	P.N. 135647.0100	February 11, 2018 11:54 p.m.					Rates-2

TEST YEAR ADJUSTED COS BY CLASS

	TY Adjusted COS \$	TY Usage Mcf
	<u>Retcos-4</u>	<u>Units-2</u>
Residential	159,910,000	3,158,500
Senior Citizens	4,712,000	115,500
Commercial	59,115,000	1,531,100
Industrial	3,186,000	93,100
Public Utilities	388,000	10,800
Housing Authority	6,553,000	166,200
Charities and Schools	5,603,000	189,200
Hospital/University	7,665,000	290,900
Hand Billed	20,059,000	554,400
xxxxxxxxxx	0	0
Scheduled (Flat Rate)	0	0
xxxxxxxxxx	0	0
Private Fire Protection	2,318,000	11,400
Public Fire Protection	0	0
Total	269,509,000	6,121,100

CHOOSE OPTION

TEST YEAR UNIT CUSTOMER COSTS-USED

	COS Unit Cost \$	Adjust. Factor (a) %	Adjusted Unit Cost \$
	<u>Retcos-2</u>	<u>Retcos-4</u>	
Non-Subsidized Residential Customers			
Cost per Equiv Meter per Bill	1.8240	2.3522	1.8669
Cost per Equiv Bill	4.0250	2.3522	4.1197
Cost per Equiv Service	0.0000	2.3522	0.0000
Non-Subsidized Non-Residential Customers			
Cost per Equiv Meter per Bill	1.8240	2.3530	1.8669
Cost per Equiv Bill	4.0250	2.3530	4.1197
Cost per Equiv Service	0.0000	2.3530	0.0000
Subsidized Residential Customers - Senior Citizens			
Cost per Equiv Meter per Bill	1.8240	(23.2448)	1.4000
Cost per Equiv Bill	4.0250	(23.2448)	3.0894
Cost per Equiv Service	0.0000	(23.2448)	0.0000
Subsidized Non-Res Customers - Hospitals & Charities			
Cost per Equiv Meter per Bill	1.8240	(23.2398)	1.4001
Cost per Equiv Bill	4.0250	(23.2398)	3.0896
Cost per Equiv Service	0.0000	(23.2398)	0.0000
Subsidized Customers - PHA			
Cost per Equiv Meter per Bill	1.8240	(2.7601)	1.7736
Cost per Equiv Bill	4.0250	(2.7601)	3.9139
Cost per Equiv Service	0.0000	(2.7601)	0.0000
Fire Meters (Private)			
\$/Equiv 6" Meter/Bill	55.4200	<-- Includes Adj. Factor	
Cost per Equiv Bill	16.4788	<-- Includes Adj. Factor	
All Other Costs/Equiv Meter/Bill	0.0000	<-- Includes Adj. Factor	

EXISTING DISCOUNT RECOVERY -SPREAD ACROSS ALL CLASSES

	Adjust. Factor (1) %
	<u>Retcos-4</u>
Non-Subsidized Residential Customers	
Cost per Equiv Meter per Bill	2.3522
Cost per Equiv Bill	2.3522
Cost per Equiv Service	2.3522
Non-Subsidized Non-Residential Customers	
Cost per Equiv Meter per Bill	2.3530
Cost per Equiv Bill	2.3530
Cost per Equiv Service	2.3530
Subsidized Residential Customers - Senior Citizens	
Cost per Equiv Meter per Bill	(23.2448)
Cost per Equiv Bill	(23.2448)
Cost per Equiv Service	(23.2448)
Subsidized Non-Res Customers - Hospitals & Charities	
Cost per Equiv Meter per Bill	(23.2398)
Cost per Equiv Bill	(23.2398)
Cost per Equiv Service	(23.2398)
Subsidized Customers - PHA	
Cost per Equiv Meter per Bill	(2.7601)
Cost per Equiv Bill	(2.7601)
Cost per Equiv Service	(2.7601)

ALTERNATIVE DISCOUNT RECOVERY-CLASS SPECIFIC

	Adjust. Factor (2) %
	<u>Retcos-4</u>
Non-Subsidized Residential Customers	
Cost per Equiv Meter per Bill	0.7109
Cost per Equiv Bill	0.7109
Cost per Equiv Service	0.7109
Non-Subsidized Non-Residential Customers	
Cost per Equiv Meter per Bill	4.9285
Cost per Equiv Bill	4.9285
Cost per Equiv Service	4.9285
Subsidized Residential Customers - Senior Citizens	
Cost per Equiv Meter per Bill	(24.4709)
Cost per Equiv Bill	(24.4709)
Cost per Equiv Service	(24.4709)
Subsidized Non-Res Customers - Hospitals & Charities	
Cost per Equiv Meter per Bill	(21.3082)
Cost per Equiv Bill	(21.3082)
Cost per Equiv Service	(21.3082)
Subsidized Customers - PHA	
Cost per Equiv Meter per Bill	(0.3187)
Cost per Equiv Bill	(0.3187)
Cost per Equiv Service	(0.3187)

(a) To account for Senior Citizens and Charities and Schools paying 75 % of COS rates.

EQUIV. PRIVATE FIRE METER AND BILL FACTORS (6" BASE):

	<u>5/8"</u>	<u>3/4"</u>	<u>1"</u>	<u>1 1/4"</u>	<u>1 1/2"</u>	<u>2"</u>	<u>3"</u>	<u>4"</u>	<u>6"</u>	<u>8"</u>	<u>10"</u>	<u>12"</u>	<u>14"</u>
Equiv. Meters	Units-4	0.0	0.1	0.1	0.1	0.2	0.3	0.5	1.0	1.6	2.3	4.3	4.5
Equiv. Bills	Units-3	0.1	0.1	0.2	0.2	0.2	0.3	0.6	1.0	1.4	2.1	2.9	3.3

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
COSR - COS Rates	P.N. 135647.0100	February 11, 2018 11:54 p.m.					Rates-3

Line No.	Customer Class	Meter Size	TY COS \$ Rates-2	TY Bills Units-3	Service Charge		Service Charge Revenue \$ (3) x (5)	Balance of COS to be Recovered through Volume Charge \$ (2) - (6)	Volume Charge Usage				Total Billings \$ (6) + (13)	Percent Billings of COS \$ (14) / (2)
					COS Monthly Service Charge \$ Rates-2	USE \$ Units-3			Rate Block 0-2	Rate Block 3-100	Rate Block 101-2,000	Rate Block >2,000		
GENERAL SERVICE RATES														
1	Residential	R = 5/8		4,930,188	5.99	5.99	29,531,826		43.08	37.67	29.31	28.51		
2		Z = 3/4		756	6.92	6.92	5,232		Rate Block Volume Charge \$/Mcf	42.61	36.65	28.40	27.63	
3		Q = 1		41,652	9.20	9.20	383,198		Percent of Total Usage in Each Block					
4		Y = 1-1/4		0	12.04	12.04	0		%	85.26%	13.88%	0.86%	0.00%	
5		P = 1-1/2		8,136	14.28	14.28	116,182		Total Usage in Each Block					
6		X = 2		11,400	21.11	21.11	240,654		Mcf	2,692,797	438,468	27,235	0	3,158,500
7		O = 3		1,872	36.24	36.24	67,841		Total Usage Charge Billings in Each Block					
8		W = 4		1,080	63.15	63.15	68,202		\$	114,740,080	16,069,852	773,474	0	131,583,406
9		N = 6		996	122.18	122.18	121,691							
10		V = 8		336	190.55	190.55	64,025							
11		E = 10		24	276.49	276.49	6,636							
12		T = 12		12	483.78	483.78	5,805							
13		H = 14			514.81	514.81	0							
14	Total			159,910,000		4,996,452		30,611,292						162,194,698
	Goal							30,395,143						162,194,698
										Bill tab adjustment			100.00%	101.43%
										Adjusted to = COS projection			100.00%	101.43%
15	Senior Citizens	R = 5/8		256,608	4.49	4.49	1,152,170		Percent of Total Usage in Each Block					
16		Z = 3/4		0	5.19	5.19	0		%	93.75%	6.25%	0.00%	0.00%	
17		Q = 1		36	6.90	6.90	248		Total Usage in Each Block					
18		Y = 1-1/4		0	9.03	9.03	0		Mcf	108,286	7,214	0	0	115,500
19		P = 1-1/2		12	10.71	10.71	129		Total Usage Charge Billings in Each Block					
20		X = 2		12	15.83	15.83	190		\$	3,460,550	198,295	0	0	3,658,845
21		O = 3		0	27.18	27.18	0							
22		W = 4		0	47.36	47.36	0							
23		N = 6		0	91.63	91.64	0							
24		V = 8		0	142.89	142.91	0							
25		E = 10		0	207.34	207.37	0							
26		T = 12		0	362.79	362.84	0							
27		H = 14			386.06	386.11	0							
28	Total			4,712,000		256,668		1,152,737						4,811,582
	Goal							1,145,538						4,811,582
										Bill tab adjustment			100.00%	102.11%
										Adjusted to = COS projection			100.00%	102.11%

Line No.	Customer Class	Meter Size	TY COS \$	TY Bills	Service Charge		Service Charge Revenue \$	Balance of COS to be Recovered through Volume Charge \$	Volume Charge				Total Billings \$	Percent Billings of COS \$	
					COS Monthly Service Charge \$	USE \$			Usage						
									Rate Block 0 - 2	Rate Block 3 - 100	Rate Block 101 - 2,000	Rate Block >2,000			Total Rates-2
29	Commercial	R = 5/8		337,812	5.99	5.99	2,023,494	Percent of Total Usage in Each Block							
30		Z = 3/4		168	6.92	6.92	1,163	%	22.16%	56.35%	20.98%	0.51%			
31		Q = 1		33,480	9.20	9.20	308,016	Total Usage in Each Block							
32		Y = 1-1/4		0	12.04	12.04	0	Mcf	339,329	862,766	321,233	7,772	1,531,100		
33		P = 1-1/2		14,244	14.28	14.28	203,404	Total Usage Charge Billings in Each Block							
34		X = 2		21,804	21.11	21.11	460,282	\$	14,458,809	31,620,374	9,123,017	214,740	55,416,940		
35		O = 3		8,244	36.24	36.24	298,763	Non-Residential Rate Block Volume Charge							
36		W = 4		5,940	63.15	63.15	375,111	\$/Mcf	42.61	36.65	28.40	27.63			
37		N = 6		4,044	122.18	122.18	494,096								
38		V = 8		1,440	190.55	190.55	274,392								
39		E = 10		312	276.49	276.49	86,265								
40		T = 12		36	483.78	483.78	17,416								
41		H = 14			514.81	514.81	0								
42	Total Goal		59,115,000	427,524			4,542,402	54,572,598					59,959,342	101.43%	
							4,511,986						59,959,342	101.43%	
													100.00%	59,959,342	101.43%
													100.00%	59,959,342	101.43%
43	Industrial	R = 5/8		6,336	5.99	5.99	37,953	Percent of Total Usage in Each Block							
44		Z = 3/4		0	6.92	6.92	0	%	11.27%	44.16%	39.82%	4.75%			
45		Q = 1		2,964	9.20	9.20	27,269	Total Usage in Each Block							
46		Y = 1-1/4		0	12.04	12.04	0	Mcf	10,495	41,116	37,069	4,420	93,100		
47		P = 1-1/2		972	14.28	14.28	13,880	Total Usage Charge Billings in Each Block							
48		X = 2		1,404	21.11	21.11	29,638	\$	447,192	1,506,901	1,052,760	122,125	3,128,978		
49		O = 3		624	36.24	36.24	22,614	Non-Residential Rate Block Volume Charge							
50		W = 4		228	63.15	63.15	14,398	\$/Mcf							
51		N = 6		252	122.18	122.18	30,789								
52		V = 8		84	190.55	190.55	16,006								
53		E = 10		24	276.49	276.49	6,636								
54		T = 12		0	483.78	483.78	0								
55		H = 14			514.81	514.81	0								
56	Total Goal		3,186,000	12,888			199,183	2,986,817					3,328,161	104.46%	
							197,279						3,328,161	104.46%	
													100.00%	3,328,161	104.46%
													100.00%	3,328,161	104.46%
57	Public Utilities	R = 5/8		576	5.99	5.99	3,450	Percent of Total Usage in Each Block							
58		Z = 3/4		0	6.92	6.92	0	%	12.84%	74.39%	12.77%	0.00%			
59		Q = 1		348	9.20	9.20	3,202	Total Usage in Each Block							
60		Y = 1-1/4		0	12.04	12.04	0	Mcf	1,387	8,034	1,379	0	10,800		
61		P = 1-1/2		132	14.28	14.28	1,885	Total Usage Charge Billings in Each Block							
62		X = 2		276	21.11	21.11	5,826	\$	59,100	294,446	39,164	0	392,710		
63		O = 3		168	36.24	36.24	6,088	Non-Residential Rate Block Volume Charge							
64		W = 4		72	63.15	63.15	4,547	\$/Mcf							
65		N = 6		48	122.18	122.18	5,865								
66		V = 8		24	190.55	190.55	4,573								
67		E = 10		0	276.49	276.49	0								
68		T = 12		12	483.78	483.78	5,805								
69		H = 14			514.81	514.81	0								
70	Total Goal		388,000	1,656			41,241	346,759					433,951	111.84%	
							40,676						433,951	13.62%	
													100.00%	433,951	13.62%
													100.0000	433,951	13.62%
71	TOTAL GENERAL SERVICE Goal		227,311,000	5,695,188			36,546,855	190,764,145					230,727,734	101.50%	
							36,290,621						230,727,734	101.50%	
													Adjusted	230,727,734	101.50%
													Adjusted to = COS projection	230,727,734	101.50%

Line No.	Customer Class	Meter Size	TY COS \$	TY Bills	Service Charge		Service Charge Revenue \$	Balance of COS to be Recovered through Volume Charge \$	Volume Charge				Total Billings \$	Percent Billings of COS \$		
					COS Monthly Service Charge \$	USE \$			Usage							
									Rate Block 0 - 2	Rate Block 3 - 100	Rate Block 101 - 2,000	Rate Block >2,000			Total Rates-2	
ALL OTHER CLASSES																
5% discount																
72	Housing Authority	R = 5/8		65,496	5.69	5.69	372,672		Percent of Total Usage in Each Block							
73		Z = 3/4		0	6.57	6.57	0		%	33.04%	38.46%	28.49%	0.01%			
74		Q = 1		804	8.74	8.74	7,027		Total Usage in Each Block							
75		Y = 1-1/4		0	11.44	11.44	0		Mcf	54,915	63,924	47,347	14	166,200		
76		P = 1-1/2		492	13.56	13.57	6,676		Total Usage Charge Billings in Each Block							
77		X = 2		900	20.06	20.05	18,045		\$	2,222,932	2,225,674	1,277,422	367	5,726,395		
78		O = 3		456	34.43	34.43	15,700									
79		W = 4		288	60.00	59.99	17,277									
80		N = 6		240	116.08	116.07	27,857									
81		V = 8		96	181.03	181.02	17,378									
82		E = 10		0	262.67	262.67	0									
83		T = 12		0	459.60	459.59	0									
84		H = 14		0	489.08	489.07	0									
85	Total Goal			6,553,000	68,772		482,632	6,070,368						6,209,027	94.75%	
							479,163			Bill tab adjustment Adjusted to = COS projection				100.00%	6,209,027	94.75%
														100.00%	6,209,027	94.75%
86	Charities & Schools	R = 5/8		14,472	4.49	4.49	64,979		Percent of Total Usage in Each Block							
87		Z = 3/4		0	5.19	5.19	0		%	18.92%	72.96%	8.12%	0.00%			
88		Q = 1		3,816	6.90	6.90	26,330		Total Usage in Each Block							
89		Y = 1-1/4		0	9.03	9.03	0		Mcf	35,798	138,048	15,354	0	189,200		
90		P = 1-1/2		1,812	10.71	10.71	19,407		Total Usage Charge Billings in Each Block							
91		X = 2		2,952	15.84	15.84	46,760		\$	1,144,015	3,794,594	327,040	0	5,265,649		
92		O = 3		2,652	27.18	27.18	72,081									
93		W = 4		3,504	47.36	47.36	165,949									
94		N = 6		864	91.63	91.63	79,168									
95		V = 8		180	142.90	142.90	25,722									
96		E = 10		24	207.36	207.36	4,977									
97		T = 12		0	362.81	362.81	0									
98		H = 14		0	386.08	386.08	0									
99	Total Goal			5,603,000	30,276		505,373	5,097,627						5,771,022	103.00%	
							501,840			Bill tab adjustment Adjusted to = COS projection				100.00%	5,771,022	103.00%
														100.00%	5,771,022	103.00%
100	Hospital/University	R = 5/8		540	4.49	4.49	2,425		Percent of Total Usage in Each Block							
101		Z = 3/4		0	5.19	5.19	0		%	2.59%	47.90%	47.92%	1.59%			
102		Q = 1		420	6.90	6.90	2,898		Total Usage in Each Block							
103		Y = 1-1/4		0	9.03	9.03	0		Mcf	7,533	139,350	139,405	4,612	290,900		
104		P = 1-1/2		192	10.71	10.71	2,056		Total Usage Charge Billings in Each Block							
105		X = 2		756	15.84	15.84	11,975		\$	240,736	3,830,383	2,969,327	95,572	7,136,018		
106		O = 3		1,248	27.18	27.18	33,921									
107		W = 4		1,488	47.36	47.36	70,472									
108		N = 6		1,068	91.63	91.63	97,861									
109		V = 8		156	142.90	142.90	22,292									
110		E = 10		48	207.36	207.36	9,953									
111		T = 12		0	362.81	362.81	0									
112		H = 14		0	386.08	386.08	0									
113	Total Goal			7,665,000	5,916		253,853	7,411,147						7,389,871	96.41%	
							252,445			Bill tab adjustment Adjusted to = COS projection				100.00%	7,389,871	96.41%
														100.00%	7,389,871	96.41%

Line No.	Customer Class	Meter Size	TY COS \$	TY Bills	Service Charge		Service Charge Revenue \$	Balance of COS to be Recovered through Volume Charge \$	Volume Charge				Total Billings \$	Percent Billings of COS \$	
					COS Monthly Service Charge \$	USE \$			Usage						
									Rate Block 0 - 2	Rate Block 3 - 100	Rate Block 101 - 2,000	Rate Block >2,000			Total Rates-2
114	Hand Billed	R = 5/8		132	5.99	5.99	791	Percent of Total Usage in Each Block							
115		Z = 3/4		0	6.92	6.92	0	%	0.89%	25.80%	49.70%	23.62%			
116		Q = 1		156	9.20	9.20	1,435	Total Usage in Each Block							
117		Y = 1-1/4		0	12.04	12.04	0	Mcf	4,908	143,012	275,512	130,968	554,400		
118		P = 1-1/2		120	14.28	14.28	1,714	Total Usage Charge Billings in Each Block							
119		X = 2		432	21.11	21.11	9,120	\$	209,130	5,241,390	7,824,541	3,618,646	16,893,707		
120		O = 3		852	36.24	36.24	30,876								
121		W = 4		864	63.15	63.15	54,562								
122		N = 6		420	122.18	122.18	51,316								
123		V = 8		144	190.55	190.55	27,439								
124		E = 10		48	276.49	276.49	13,272								
125		T = 12		0	483.78	483.78	0								
126		H = 14			514.81	514.81	0								
127	Total Goal		20,059,000	3,168			190,525	19,868,475					17,084,232	85.17%	
							143,383						17,084,232	85.17%	
									Bill tab adjustment Adjusted to = COS projection				100.00%	17,084,232	85.17%
													100.00%	17,084,232	85.17%
128	xxxxxxxxx	R = 5/8		0	5.99	5.99	0	Percent of Total Usage in Each Block							
129		Z = 3/4		0	6.92	6.92	0	%	100.00%	0.00%	0.00%	0.00%			
130		Q = 1		0	9.20	9.20	0	Total Usage in Each Block							
131		Y = 1-1/4		0	12.04	12.04	0	Mcf	0	0	0	0	0		
132		P = 1-1/2		0	14.28	14.28	0	Total Usage Charge Billings in Each Block							
133		X = 2		0	21.11	21.11	0	\$	0	0	0	0	0		
134		O = 3		0	36.24	36.24	0								
135		W = 4		0	63.15	63.15	0								
136		N = 6		0	122.18	122.18	0								
137		V = 8		0	190.55	190.55	0								
138		E = 10		0	276.49	276.49	0								
139		T = 12		0	483.78	483.78	0								
140		H = 14			514.81	514.81	0								
141	Total Goal		0	0			0	0					0	0.00%	
							0						0	0.00%	
									Bill tab adjustment Adjusted to = COS projection				100.00%	0	0.00%
													100.00%	0	0.00%
142	Scheduled (Flat Rate)	R = 5/8		36	5.99	5.99	216	Percent of Total Usage in Each Block							
143		Z = 3/4		0	6.92	6.92	0	%	100.00%	0.00%	0.00%	0.00%			
144		Q = 1		0	9.20	9.20	0	Total Usage in Each Block							
145		Y = 1-1/4		0	12.04	12.04	0	Mcf	0	0	0	0	0		
146		P = 1-1/2		0	14.28	14.28	0	Total Usage Charge Billings in Each Block							
147		X = 2		0	21.11	21.11	0	\$	0	0	0	0	0		
148		O = 3		0	36.24	36.24	0								
149		W = 4		0	63.15	63.15	0								
150		N = 6		0	122.18	122.18	0								
151		V = 8		0	190.55	190.55	0								
152		E = 10		0	276.49	276.49	0								
153		T = 12		0	483.78	483.78	0								
154		H = 14			514.81	514.81	0								
155	Total Goal		0	36			216	(216)					216	0.00%	
							0						216	0.00%	
									Bill tab adjustment Adjusted to = COS projection				100.00%	216	0.00%
													100.00%	216	0.00%

Line No.	Customer Class	Meter Size	TY COS \$	TY Bills	Service Charge		Service Charge Revenue \$	Balance of COS to be Recovered through Volume Charge \$	Volume Charge				Total Billings \$	Percent Billings of COS \$
					COS Monthly Service Charge \$	USE \$			Usage					
									Rate Block 0 - 2	Rate Block 3 - 100	Rate Block 101 - 2,000	Rate Block >=2,000		
156	xxxxxxxxx	R = 5/8		0	5.99	5.99	0	Percent of Total Usage in Each Block						
157		Z = 3/4		0	6.92	6.92	0	%	100.00%	0.00%	0.00%	0.00%		
158		Q = 1		0	9.20	9.20	0	Total Usage in Each Block						
159		Y = 1-1/4		0	12.04	12.04	0	Mcf	0	0	0	0	0	
160		P = 1-1/2		0	14.28	14.28	0	Total Usage Charge Billings in Each Block						
161		X = 2		0	21.11	21.11	0	\$	0	0	0	0	0	
162		O = 3		0	36.24	36.24	0	Total Usage Charge Billings in Each Block						
163		W = 4		0	63.15	63.15	0	Total Usage Charge Billings in Each Block						
164		N = 6		0	122.18	122.18	0	Total Usage Charge Billings in Each Block						
165		V = 8		0	190.55	190.55	0	Total Usage Charge Billings in Each Block						
166		E = 10		0	276.49	276.49	0	Total Usage Charge Billings in Each Block						
167		T = 12		0	483.78	483.78	0	Total Usage Charge Billings in Each Block						
168		H = 14		0	514.81	514.81	0	Total Usage Charge Billings in Each Block						
169	Total Goal		0	0			0	0	7				0	0.00%
							0		Bill tab adjustment			100.00%	0	0.00%
									Adjusted to = COS projection			100.0000	0	0.00%
170	Fire Protect. (Private)	R = 5/8		497	4.12	25.59	12,718	Percent of Total Usage in Each Block						
171		Z = 3/4		264	4.67	25.59	6,756	%	6.21%	31.60%	62.19%	0.00%		
172		Q = 1		9,530	5.44	25.59	243,873	Total Usage in Each Block						
173		Y = 1-1/4		0	6.33	25.59	0	Mcf	709	3,602	7,089	0	11,400	
174		P = 1-1/2		1,500	6.77	25.59	38,385	Total Usage Charge Billings in Each Block						
175		X = 2		15,256	9.09	25.59	390,401	\$	30,210	132,013	201,328	0	363,551	
176		O = 3		1,424	13.71	25.59	36,440	Total Usage Charge Billings in Each Block						
177		W = 4		8,697	25.59	25.59	222,556	Total Usage Charge Billings in Each Block						
178		N = 6		13,481	47.06	47.06	634,416	Total Usage Charge Billings in Each Block						
179		V = 8		4,385	70.35	70.35	308,485	Total Usage Charge Billings in Each Block						
180		E = 10		600	103.70	103.70	62,220	Total Usage Charge Billings in Each Block						
181		T = 12		110	160.74	160.74	17,681	Total Usage Charge Billings in Each Block						
182		H = 14			176.74	176.74	0	Total Usage Charge Billings in Each Block						
183	Total Goal		2,318,000	55,744			1,973,931	344,069					2,337,482	100.84%
					Factor	1.0000	1,296,548						2,337,482	100.84%
													2,337,482	100.84%
184	Fire Protect. (Public)	R = 5/8					Annual Svc. Charge Equals COS	Percent of Total Usage in Each Block						
185		Z = 3/4					Less Vol. Charges	%	6.21%	31.60%	62.19%	0.00%		
186		Q = 1					Total Usage in Each Block							
187		Y = 1-1/4					Mcf	0	0	0	0	0	0	
188		P = 1-1/2					Total Usage Charge Billings in Each Block							
189		X = 2					\$	0	0	0	0	0	0	
190		O = 3					Total Usage Charge Billings in Each Block							
191		W = 4					Total Usage Charge Billings in Each Block							
192		N = 6					Total Usage Charge Billings in Each Block							
193		V = 8					Total Usage Charge Billings in Each Block							
194		E = 10					Total Usage Charge Billings in Each Block							
195		T = 12					Total Usage Charge Billings in Each Block							
196		H = 14					Total Usage Charge Billings in Each Block							
197	Total Goal		0	0			0	0					0	0.00%
							0		Bill tab adjustment			100.00%	0	0.00%
198	TOTAL EXCLUDING GENERAL SERVICE GOAL		42,198,000	163,912			3,406,530	38,791,470					38,791,850	91.93%
							2,673,379		Adjusted				38,791,850	91.93%
199	TOTAL ALL CLASSES GOAL		269,509,000	5,859,100			39,953,385	229,555,615					269,519,584	100.00%
							38,964,000		Adjusted				269,519,584	100.00%
							102.54%		Adjusted to = COS projection				269,519,584	100.00%

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)				DRAFT - for Discussion Only		Test Year	Budget Yr	2017	Ver. 1a
BILLCOS - Billings Under COS Rates		P.N. 135647.0100				February 11, 2018 11:54 p.m.					Rates-4
Line No.	Customer Class	(1) Billed Volume Mcf Rates-3	(2) Billings \$ Rates-3	(3) Unit Billings (1) \$/Mcf (2) / (1)	(4) Service Charge \$ Rates-3	(5) Volume Charge \$ (2) - (4)	(6) Percent Distribution Service Charge %		(7) Volume Charge %		
							(4) / (2)	1 - (6)			
1	Residential	3,158,500	162,194,698	51.3518	30,611,292	131,583,406	18.87%	81.13%			
2	Senior Citizens	115,500	4,811,582	41.6587	1,152,737	3,658,845	23.96%	76.04%			
3	Commercial	1,531,100	59,959,342	39.1610	4,542,402	55,416,940	7.58%	92.42%			
4	Industrial	93,100	3,328,161	35.7482	199,183	3,128,978	5.98%	94.02%			
5	Public Utilities	10,800	433,951	40.1806	41,241	392,710	9.50%	90.50%			
6	Subtotal General Service	4,909,000	230,727,734	47.0010	36,546,855	194,180,879	15.84%	84.16%			
7	Housing Authority	166,200	6,209,027	37.3588	482,632	5,726,395	7.77%	92.23%			
8	Charities & Schools	189,200	5,771,022	30.5022	505,373	5,265,649	8.76%	91.24%			
9	Hospital/University	290,900	7,389,871	25.4035	253,853	7,136,018	3.44%	96.56%			
10	Hand Bills	554,400	17,084,232	30.8157	190,525	16,893,707	1.12%	98.88%			
11	xxxxxxxx	0	0	0.0000	0	0	100.00%	0.00%			
12	Scheduled (Flat Rate)	0	216	0.0000	216	0	100.00%	0.00%			
13	xxxxxxxx	0	0	0.0000	0	0	100.00%	0.00%			
14	Fire Protect. (Private)	11,400	2,337,482	41.9324	1,973,931	363,551	84.45%	15.55%			
15	Fire Protect. (Public)	0	0	0	0	0	100.00%	0.00%			
16	Total	6,121,100	269,519,584	44.0312	39,953,385	229,566,199	14.82%	85.18%			

(1) Public and Private Fire Protection Unit Billings = \$/Bill.

WCOS17_19.XLS

LAGRATE

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
LagInd - Index	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-1

The "LagRate" worksheet refines cost of service rates to recognize billing lag and rate implementation refinements and develops proposed Water utility rates for the test year and two following years.

Range	Description	Page Number	Table
LagInd	Index	LagRate-1	
RATES	Existing and COS Rates	LagRate-2	
PBAC	Projected Bills, Accounts, and Consumption	LagRate-3	
PWR	Projected Water Receipts	LagRate-4	
BER	Test Year Billings Under Existing Rates	LagRate-5	
BPR	Projected Billings Under Proposed Rates	LagRate-6	
SBPR	Summary of Projected Billings Under Proposed Rates	LagRate-7	
RWL	Calculation of Receipts with Lag	LagRate-8	
TYRWL	Test Year Retail Receipts with Lag	LagRate-9	
COSWL	Inflated COS Rates to Account for Lag	LagRate-10	
REVCOMP	Comparison of Revenue Under Exist. Rates to COS	LagRate-11	TABLE W-17
CPRATES	Water & Wastewater Proposed Rates	LagRate-12	
WPRATES	Water Proposed Rates	LagRate-13	TABLE W-18 and TABLE W-19
BTAB	BillTab Billing Percentages	LagRate-14	
WSERVCHG	Components of Water Service Charges	LagRate-15	
WSERVCHG	Summary of Components Water Service Charges	LagRate-16	

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year 2019	Budget Yr 2017	Ver. 1a
RATES - Existing and COS Rates	P.N. 135647.0100	February 12, 2018 1:19 a.m.			LagRate-2

References: 0
0

TEST YEAR COS RATES

TEST YEAR 2019

Effective July 1, 2019

(Prior to Application of Lag Factor Adjustment)

Meter Size inches	Meter Code	Gen Svc Residential Service Charge \$/Bill	Discount Senior Citizen Service Charge (a) \$/Bill
		Rates-3	Rates-3
5/8	R	5.99	4.49
3/4	Z	6.92	5.19
1	Q	9.20	6.90
1 1/4	Y	12.04	9.03
1 1/2	P	14.28	10.71
2	X	21.11	15.83
3	O	36.24	27.18
4	W	63.15	47.36
6	N	122.18	91.64
8	V	190.55	142.91
10	E	276.49	207.37
12	T	483.78	362.84
14	H	514.81	386.11

EXISTING RATES

(Effective Jul 1, 2017)

Meter Size inches	Meter Code	General Service Service Charge \$/Bill	Other (a) Service Charge \$/Bill
		Ref. A	
5/8	R	6.61	4.96
3/4	Z	7.59	5.69
1	Q	10.02	7.52
1 1/4	Y	13.03	9.77
1 1/2	P	15.38	11.54
2	X	22.66	17.00
3	O	38.70	29.03
4	W	67.61	50.71
6	N	130.56	97.92
8	V	203.32	152.49
10	E	295.18	221.39
12	T	514.45	385.84
14	H		0.00

First Block 0 - 2 Mcf \$/Mcf	Second Block 3 - 100 Mcf \$/Mcf	Third Block 101 - 2,000 Mcf \$/Mcf	Fourth Block >2,000 Mcf \$/Mcf
Rates-3	Rates-3	Rates-3	Rates-3

First 2 Mcf \$/Mcf	Next 98 Mcf \$/Mcf	Next 1,900 Mcf \$/Mcf	Over 2,000 Mcf \$/Mcf
Ref. B	Ref. B	Ref. B	Ref. B

General Service Volume Charge	42.61	36.65	28.40	27.63
Discount Volume Charge (a)	31.96	27.49	21.30	20.72

General Service Volume Charge	43.08	37.67	29.31	28.51
Discount Volume Charge (a)	32.31	28.25	21.98	21.38

Meter Size inches	Meter Code	Gen Svc Non Res Service Charge \$/Bill	Discount Senior Citizen Service Charge (a) \$/Bill
		Rates-3	Rates-3
5/8	R	5.99	4.49
3/4	Z	6.92	5.19
1	Q	9.20	6.90
1 1/4	Y	12.04	9.03
1 1/2	P	14.28	10.71
2	X	21.11	15.84
3	O	36.24	27.18
4	W	63.15	47.36
6	N	122.18	91.63
8	V	190.55	142.90
10	E	276.49	207.36
12	T	483.78	362.81
14	H	514.81	386.08

Meter Size inches	Meter Code	General Service Service Charge \$/Bill	Other (a) Service Charge \$/Bill
		Ref. A	
5/8	R	6.61	4.96
3/4	Z	7.59	5.69
1	Q	10.02	7.52
1 1/4	Y	13.03	9.77
1 1/2	P	15.38	11.54
2	X	22.66	17.00
3	O	38.70	29.03
4	W	67.61	50.71
6	N	130.56	97.92
8	V	203.32	152.49
10	E	295.18	221.39
12	T	514.45	385.84
14	H		0.00

First Block 0 - 2 Mcf \$/Mcf	Second Block 3 - 100 Mcf \$/Mcf	Third Block 101 - 2,000 Mcf \$/Mcf	Fourth Block >2,000 Mcf \$/Mcf
Rates-3	Rates-3	Rates-3	Rates-3

First 2 Mcf \$/Mcf	Next 98 Mcf \$/Mcf	Next 1,900 Mcf \$/Mcf	Over 2,000 Mcf \$/Mcf
Ref. B	Ref. B	Ref. B	Ref. B

General Service Volume Charge	42.61	36.65	28.40	27.63
Discount Volume Charge (a)	31.96	27.49	21.30	20.72

General Service Volume Charge	43.08	37.67	29.31	28.51
Discount Volume Charge (a)	32.31	28.25	21.98	21.38

(a) Discount rate applies to Senior Citizens and Charities.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PBAC - Projected Bills, Accounts, and Consumption	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-3

**Projected Number of Accounts
"Water and Sewer" plus "Water Only"**

	Fiscal Year Ending June 30										Test Year
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2019
General Service											
5/8" (excl Senior Citizens)	432,684	439,574	439,574	439,574	439,574	439,574	439,574	439,574	439,574	439,574	439,574
>5/8" (excl Senior Citizens)	12,834	13,636	13,636	13,636	13,636	13,636	13,636	13,636	13,636	13,636	13,636
Senior Citizens (5/8")	20,188	21,384	21,384	21,384	21,384	21,384	21,384	21,384	21,384	21,384	21,384
Senior Citizens (>5/8")	4	5	5	5	5	5	5	5	5	5	5
Housing Authority	5,896	5,731	5,731	5,731	5,731	5,731	5,731	5,731	5,731	5,731	5,731
Charities & Schools	2,607	2,523	2,523	2,523	2,523	2,523	2,523	2,523	2,523	2,523	2,523
Hospital/University	502	493	493	493	493	493	493	493	493	493	493
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Fire Meters	6,498	7,122	7,122	7,122	7,122	7,122	7,122	7,122	7,122	7,122	7,122
Scheduled (Flat Rate)	2	3	3	3	3	3	3	3	3	3	3
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Total	481,215	490,471	490,471	490,471	490,471	490,471	490,471	490,471	490,471	490,471	490,471

**Projected Number of Bills
"Water and Sewer" plus "Water Only"
(Number of Accounts x 12)**

	Fiscal Year Ending June 30										Test Year
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2019
General Service											
5/8" (excl Senior Citizens)	5,192,208	5,274,888	5,274,888	5,274,888	5,274,888	5,274,888	5,274,888	5,274,888	5,274,888	5,274,888	5,274,888
>5/8" (excl Senior Citizens)	154,008	163,632	163,632	163,632	163,632	163,632	163,632	163,632	163,632	163,632	163,632
Senior Citizens (5/8")	242,256	256,608	256,608	256,608	256,608	256,608	256,608	256,608	256,608	256,608	256,608
Senior Citizens (>5/8")	48	60	60	60	60	60	60	60	60	60	60
Housing Authority	70,752	68,772	68,772	68,772	68,772	68,772	68,772	68,772	68,772	68,772	68,772
"N" Charities	31,284	30,276	30,276	30,276	30,276	30,276	30,276	30,276	30,276	30,276	30,276
"6 Cent" Charities	6,024	5,916	5,916	5,916	5,916	5,916	5,916	5,916	5,916	5,916	5,916
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Fire Meters	77,976	85,464	85,464	85,464	85,464	85,464	85,464	85,464	85,464	85,464	85,464
Scheduled (Flat Rate)	24	36	36	36	36	36	36	36	36	36	36
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Total	5,774,580	5,885,652	5,885,652	5,885,652	5,885,652	5,885,652	5,885,652	5,885,652	5,885,652	5,885,652	5,885,652

**Projected Consumption
"Water and Sewer" plus "Water Only"**

	Fiscal Year Ending June 30										Test Year
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2019
Senior Citizens	115,954	117,789	119,783	117,645	115,507	113,582	111,657	109,733	107,808	105,884	115,507
Residential (excl SC)	3,220,713	3,146,835	3,257,085	3,207,783	3,158,482	3,109,180	3,059,878	3,014,685	2,969,492	2,924,299	3,158,482
Commercial	1,548,083	1,534,227	1,542,325	1,536,694	1,531,064	1,525,715	1,520,367	1,515,018	1,509,951	1,504,884	1,531,064
Industrial	90,683	96,929	93,274	93,168	93,068	92,967	92,867	92,772	92,677	92,582	93,068
Public Utilities	10,712	10,984	10,830	10,822	10,814	10,806	10,797	10,790	10,782	10,774	10,814
Housing Authority	178,327	163,222	166,199	166,199	166,199	166,199	166,199	166,199	166,199	166,199	166,199
Charities & Schools ("N" Charities)	192,057	179,950	189,225	189,225	189,225	189,225	189,225	189,225	189,225	189,225	189,225
Hospital & University("6 Cent" Charities)	272,764	300,850	290,870	290,870	290,870	290,870	290,870	290,870	290,870	290,870	290,870
Hand Bill	573,950	573,219	554,400	554,400	554,400	554,400	554,400	554,400	554,400	554,400	554,400
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Fire Meters	11,569	14,981	11,391	11,391	11,391	11,391	11,391	11,391	11,391	11,391	11,391
Scheduled (Flat Rate)	21	16	24	24	24	24	24	24	24	24	24
xxxxxxxxxx	0	0	0	0	0	0	0	0	0	0	0
Total	6,214,832	6,139,002	6,235,406	6,178,222	6,121,043	6,064,359	6,007,676	5,955,107	5,902,819	5,850,532	6,121,043
Bucks County	0	0	0	0	0	0	0	0	0	0	0
Total	6,214,832	6,139,002	6,235,406	6,178,222	6,121,043	6,064,359	6,007,676	5,955,107	5,902,819	5,850,532	6,121,043

(a) Included with General Service for this update.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
PWR - Projected Water Receipts	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-4

Reference: RReqI3.xls - Wrev-6

PROJECTED WATER RECEIPTS UNDER EXISTING RATES

Fiscal Year Ending June 30	Billings												Receipts						
	Senior Citizens \$1,000	Residential Excluding SC \$1,000	Commercial \$1,000	Industrial \$1,000	Public Utilities \$1,000	Housing Authority \$1,000	Charities & Schools \$1,000	Hospitals & Universities \$1,000	Hand Bill \$1,000	Scheduled (Flat Rate) \$1,000	Subtotal (b) \$1,000	Aqua PA \$1,000	Total Billings \$1,000	B&V Calcuates General Service Receipts (d) \$1,000	Actual General Service Receipts \$1,000	Public Fire Protection \$1,000	Private Fire Protection \$1,000	Total Receipts \$1,000	
													x						(10)+(15)+(16)
2015	4,523	154,229	55,284	3,015	386	6,165	5,278	6,478	16,287	1	251,645	3,756	255,401	244,054	247,804	8,162	2,901	255,118	
2016	4,652	152,355	54,967	3,212	398	5,683	4,971	7,124	16,293	1	249,657	3,561	253,218	241,253	245,003	8,162	3,251	252,666	
2017	4,923	164,443	59,211	3,273	427	6,093	5,658	7,249	16,744	1	268,022	3,339	271,361	256,825	0	7,617	3,343	267,785	
2018	5,037	168,895	61,787	3,425	447	6,372	5,928	7,600	17,577	1	277,069	3,364	280,433	266,233	0	7,866	3,389	277,488	
2019	4,975	167,073	61,689	3,427	448	6,383	5,939	7,614	17,612	1	275,161	3,364	278,524	265,702	0	0	3,390	269,092	
2020	4,914	164,992	61,491	3,424	447	6,383	5,939	7,614	17,612	1	272,816	3,364	276,180	263,656	0	0	3,390	267,046	
2021	4,852	162,911	61,293	3,420	447	6,383	5,939	7,614	17,612	1	270,471	3,364	273,835	261,399	0	0	3,390	264,789	
2022	4,790	161,003	61,094	3,417	447	6,383	5,939	7,614	17,612	1	268,300	3,364	271,664	259,285	0	0	3,390	262,674	
2023	4,729	159,095	60,906	3,414	446	6,383	5,939	7,614	17,612	1	266,139	3,364	269,503	257,195	0	0	3,390	260,584	
2024	4,667	157,188	60,719	3,411	446	6,383	5,939	7,614	17,612	1	263,979	3,364	267,342	255,109	0	0	3,390	258,498	
2025	4,605	155,280	60,531	3,407	446	6,383	5,939	7,614	17,612	1	261,818	3,364	265,182	253,023	0	0	3,390	256,413	
2026	4,544	153,373	60,353	3,404	446	6,383	5,939	7,614	17,612	1	259,668	3,364	263,032	250,946	0	0	3,390	254,336	
2027	4,489	151,638	60,176	3,401	445	6,383	5,939	7,614	17,612	1	257,698	3,364	261,062	249,025	0	0	3,390	252,415	
2028	4,434	149,904	59,999	3,398	445	6,383	5,939	7,614	17,612	1	255,729	3,364	259,092	247,121	0	0	3,390	250,511	
TY 2019	4,975	167,073	61,689	3,427	448	6,383	5,939	7,614	17,612	1	275,161	3,364	278,524	265,702	0	0	3,390	269,092	

(a) Includes Residential, Commercial, and Industrial.

(b) 2017 and beyond subtotals reflect an adjustment to gross water billings of 0.0%.

(d) Receipts are computed using following formula:

(Current Year Collection Factor * Current Year Subtotal Billings)+(First Year Prior Collection Factor * First Year Prior Subtotal Billings)+(Second Year Collection Factor * Second Year Prior Subtotal Billings)+Wholesale Current Year Billings

(e) Reflects Interfund Charges To General Fund for Water Service for City , Zoo, Groundwater Discharge, Public Fire Protection (FNC-12), Aviation Fund, and Misc. City revenues.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
BER - Test Year Billings Under Existing Rates	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-5

Reference: Financial Planning Model - Customer/Link

Gross Billing Adjustment Factor = 0.00

	(1)	(2)	(3)	(4)	(5)
	Percent Volume Charge	Percent Service Charge	TY 2019 Billings Under Existing Rates	Volume Charge Billings	Service Charge Billings
	%	%	\$	\$	\$
	Ref. A	Ref. A	LagRate-4	(1) x (3)	(2) x (3)
Senior Citizens	74.42%	25.58%	4,975,493	3,702,746	1,272,747
Residential (Excluding SC)	79.80%	20.20%	167,072,707	133,320,279	33,752,428
Commercial	92.00%	8.00%	61,689,132	56,754,270	4,934,861
Industrial	93.73%	6.27%	3,427,335	3,212,362	214,972
Public Utilities	90.11%	9.89%	447,587	403,319	44,268
Housing Authority	91.71%	8.29%	6,382,830	5,853,758	529,072
Charities & Schools	90.85%	9.15%	5,938,581	5,395,071	543,511
Hospitals & University	96.43%	3.57%	7,614,277	7,342,711	271,566
Hand Bill	98.84%	1.16%	17,611,594	17,407,854	203,740
Scheduled (Flat Rate)	81.29%	18.71%	1,272	1,034	238
xxxxxxxxxx	0.00%	0.00%	0	0	0
xxxxxxxxxx	0.00%	0.00%	0	0	0
Private Fire	11.02%	88.98%	3,389,713	373,707	3,016,006
Public Fire	0.00%	0.00%	0	0	0
Total	83.92%	16.08%	278,550,520	233,767,110	44,783,409
Total less xxxxxxxxxx	83.92%	16.08%	278,550,520	233,767,110	44,783,409
Total less xxxxxxxxxx & Fir	84.82%	15.18%	275,160,806	233,393,403	41,767,403

(a) Includes Residential, Commercial, Industrial, Public Utilities, and Miscellaneous.

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)							DRAFT - for Discussion Only		Test Year	2019	Budget Yr	2017	Ver. 1a		
BPR - Projected Billings Under Proposed Rates		P.N. 135647.0100							February 12, 2018 0:56 a.m.						LagRate-6		
		Senior Citizens	Residential	Commercial	Industrial	Public Utilities	Housing Authority	Charities & Schools	Hospitals & Universities	Hand Bill	xxxxxxxxxx	Scheduled (Flat Rate)	xxxxxxxxxx	Private Fire Protection	Public Fire Protection	Total	Total less xxxxxxxxxxxx
Test Year Unit Billings - \$/M	Rates-4	41.6587	51.3518	39.1610	35.7482	40.1806	37.3588	30.5022	25.4035	30.8157	0.0000	0.0000	0.0000	41.9324	0		
Test Year Percent Service CI	Rates-4	23.96%	18.87%	7.58%	5.98%	9.50%	7.77%	8.76%	3.44%	1.12%	100.00%	100.00%	100.00%	84.45%	100.00%		
Test Year Percent Volume C	Rates-4	76.04%	81.13%	92.42%	94.02%	90.50%	92.23%	91.24%	96.56%	98.88%	0.00%	0.00%	0.00%	15.55%	0.00%		
														85,464			
Billed Volume	LagRate-3	119,783	3,257,085	1,542,325	93,274	10,830	166,199	189,225	290,870	554,400	0	24	0	(b)	0	6,224,015	6,224,015
Service Charge Billings		1,196,000	31,561,000	4,578,000	199,000	41,000	482,000	506,000	254,000	191,000	0	0	0	2,863,000	0	41,871,000	41,871,000
Volume Charge Billings		3,794,000	135,696,000	55,821,000	3,135,000	394,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	527,000	0	234,388,000	234,388,000
Total Billings		4,990,000	167,257,000	60,399,000	3,334,000	435,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,390,000	0	276,259,000	276,259,000
														85,464			
Billed Volume	LagRate-3	117,645	3,207,783	1,536,694	93,168	10,822	166,199	189,225	290,870	554,400	0	24	0	(b)	0	6,166,831	6,166,831
Service Charge Billings		1,174,000	31,084,000	4,561,000	199,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	41,519,000	41,519,000
Volume Charge Billings		3,727,000	133,641,000	55,617,000	3,132,000	394,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	232,089,000	232,089,000
Total Billings		4,901,000	164,725,000	60,178,000	3,331,000	435,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	273,608,000	273,608,000
														85,464			
Billed Volume	LagRate-3	115,507	3,158,482	1,531,064	93,068	10,814	166,199	189,225	290,870	554,400	0	24	0	(b)	0	6,109,652	6,109,652
Service Charge Billings		1,153,000	30,606,000	4,545,000	199,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	41,004,000	41,004,000
Volume Charge Billings		3,659,000	131,588,000	55,413,000	3,128,000	394,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	229,760,000	229,760,000
Total Billings		4,812,000	162,194,000	59,958,000	3,327,000	435,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	270,764,000	270,764,000
														85,464			
Billed Volume	LagRate-3	113,582	3,109,180	1,525,715	92,967	10,806	166,199	189,225	290,870	554,400	0	24	0	(b)	0	6,052,968	6,052,968
Service Charge Billings		1,134,000	30,128,000	4,529,000	199,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	40,491,000	40,491,000
Volume Charge Billings		3,598,000	129,534,000	55,220,000	3,124,000	393,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	227,447,000	227,447,000
Total Billings		4,732,000	159,662,000	59,749,000	3,323,000	434,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	267,938,000	267,938,000
														85,464			
Billed Volume	LagRate-3	111,657	3,059,878	1,520,367	92,867	10,797	166,199	189,225	290,870	554,400	0	24	0	(b)	0	5,996,285	5,996,285
Service Charge Billings		1,115,000	29,650,000	4,513,000	199,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	39,978,000	39,978,000
Volume Charge Billings		3,537,000	127,480,000	55,026,000	3,121,000	393,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	225,135,000	225,135,000
Total Billings		4,652,000	157,130,000	59,539,000	3,320,000	434,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	265,113,000	265,113,000
														85,464			
Billed Volume	LagRate-3	109,733	3,014,685	1,515,018	92,772	10,790	166,199	189,225	290,870	554,400	0	24	0	(b)	0	5,943,716	5,943,716
Service Charge Billings		1,095,000	29,213,000	4,497,000	198,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	39,504,000	39,504,000
Volume Charge Billings		3,476,000	125,597,000	54,833,000	3,118,000	393,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	222,995,000	222,995,000
Total Billings		4,571,000	154,810,000	59,330,000	3,316,000	434,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	262,499,000	262,499,000
														85,464			
Billed Volume	LagRate-3	107,808	2,969,492	1,509,951	92,677	10,782	166,199	189,225	290,870	554,400	0	24	0	(b)	0	5,891,428	5,891,428
Service Charge Billings		1,076,000	28,775,000	4,482,000	198,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	39,032,000	39,032,000
Volume Charge Billings		3,415,000	123,714,000	54,649,000	3,115,000	392,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	220,863,000	220,863,000
Total Billings		4,491,000	152,489,000	59,131,000	3,313,000	433,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	259,895,000	259,895,000
														85,464			
Billed Volume	LagRate-3	105,884	2,924,299	1,504,884	92,582	10,774	166,199	189,225	290,870	554,400	0	24	0	(b)	0	5,839,141	5,839,141
Service Charge Billings		1,057,000	28,337,000	4,467,000	198,000	41,000	482,000	506,000	254,000	191,000	0	0	0	3,027,000	0	38,560,000	38,560,000
Volume Charge Billings		3,354,000	121,831,000	54,466,000	3,112,000	392,000	5,727,000	5,266,000	7,135,000	16,893,000	0	0	0	557,000	0	218,733,000	218,733,000
Total Billings		4,411,000	150,168,000	58,933,000	3,310,000	433,000	6,209,000	5,772,000	7,389,000	17,084,000	0	0	0	3,584,000	0	257,293,000	257,293,000

(a) Combined Residential, Commercial, Industrial unit billing rate and percent service and volume charge calculated as follows:

	<u>Billed Volume</u> Mcf <u>Rates-4</u>	<u>Billings</u> \$ <u>Rates-4</u>	<u>Unit Billings</u> \$/Mcf	<u>Service Charge</u> \$ <u>Rates-4</u>	<u>Volume Charge</u> \$ <u>Rates-4</u>	<u>Percent Service Charge</u> %	<u>Percent Volume Charge</u> %
Residential	3,158,500	162,194,698		30,611,292	131,583,406	18.87%	81.13%
Commercial	1,531,100	59,959,342		4,542,402	55,416,940	7.58%	92.42%
Industrial	93,100	3,328,161		199,183	3,128,978	5.98%	94.02%
Public Utilities	10,800	433,951		41,241	392,710	9.50%	90.50%
	<u>4,793,500</u>	<u>225,916,152</u>	<u>47.1297</u>	<u>35,394,118</u>	<u>190,522,034</u>	<u>15.67%</u>	<u>84.33%</u>

(b) Total projected billings are equal to test year billings under existing rates.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
SBPR - Summary of Projected Billings Under Proposed Rates	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-7

Reference: [LagRate-6](#)

SERVICE CHARGE BILLINGS

	2017	2018	2019	2020	2021	2022	2023	2024
Senior Citizens	1,196,000	1,174,000	1,153,000	1,134,000	1,115,000	1,095,000	1,076,000	1,057,000
Residential	31,561,000	31,084,000	30,606,000	30,128,000	29,650,000	29,213,000	28,775,000	28,337,000
Commercial	4,578,000	4,561,000	4,545,000	4,529,000	4,513,000	4,497,000	4,482,000	4,467,000
Industrial	199,000	199,000	199,000	199,000	199,000	198,000	198,000	198,000
Public Utilities	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000
Subtotal	37,575,000	37,059,000	36,544,000	36,031,000	35,518,000	35,044,000	34,572,000	34,100,000
Housing Authority	482,000	482,000	482,000	482,000	482,000	482,000	482,000	482,000
Charities & Schools	506,000	506,000	506,000	506,000	506,000	506,000	506,000	506,000
Hospitals & Universities	254,000	254,000	254,000	254,000	254,000	254,000	254,000	254,000
Hand Billed	191,000	191,000	191,000	191,000	191,000	191,000	191,000	191,000
xxxxxxxxxx	0	0	0	0	0	0	0	0
Scheduled (Flat Rate)	0	0	0	0	0	0	0	0
xxxxxxxxxx	0	0	0	0	0	0	0	0
Fire Protect. (Private)	2,863,000	3,027,000	3,027,000	3,027,000	3,027,000	3,027,000	3,027,000	3,027,000
Fire Protect. (Public)	0	0	0	0	0	0	0	0
Total	41,871,000	41,519,000	41,004,000	40,491,000	39,978,000	39,504,000	39,032,000	38,560,000
Total Less xxxxxxxxxxxx	41,871,000	41,519,000	41,004,000	40,491,000	39,978,000	39,504,000	39,032,000	38,560,000
Total Less xxxxxxxxxxxx & Public and Privat	39,008,000	38,492,000	37,977,000	37,464,000	36,951,000	36,477,000	36,005,000	35,533,000

VOLUME CHARGE BILLINGS

	2017	2018	2019	2020	2021	2022	2023	2024
Senior Citizens	3,794,000	3,727,000	3,659,000	3,598,000	3,537,000	3,476,000	3,415,000	3,354,000
Residential	135,696,000	133,641,000	131,588,000	129,534,000	127,480,000	125,597,000	123,714,000	121,831,000
Commercial	55,821,000	55,617,000	55,413,000	55,220,000	55,026,000	54,833,000	54,649,000	54,466,000
Industrial	3,135,000	3,132,000	3,128,000	3,124,000	3,121,000	3,118,000	3,115,000	3,112,000
Public Utilities	394,000	394,000	394,000	393,000	393,000	393,000	392,000	392,000
Subtotal	198,840,000	196,511,000	194,182,000	191,869,000	189,557,000	187,417,000	185,285,000	183,155,000
Housing Authority	5,727,000	5,727,000	5,727,000	5,727,000	5,727,000	5,727,000	5,727,000	5,727,000
Charities & Schools	5,266,000	5,266,000	5,266,000	5,266,000	5,266,000	5,266,000	5,266,000	5,266,000
Hospitals & Universities	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000	7,135,000
Hand Billed	16,893,000	16,893,000	16,893,000	16,893,000	16,893,000	16,893,000	16,893,000	16,893,000
xxxxxxxxxx	0	0	0	0	0	0	0	0
Scheduled (Flat Rate)	0	0	0	0	0	0	0	0
xxxxxxxxxx	0	0	0	0	0	0	0	0
Fire Protect. (Private)	527,000	557,000	557,000	557,000	557,000	557,000	557,000	557,000
Fire Protect. (Public)	0	0	0	0	0	0	0	0
Total	234,388,000	232,089,000	229,760,000	227,447,000	225,135,000	222,995,000	220,863,000	218,733,000
Total Less xxxxxxxxxxxx	234,388,000	232,089,000	229,760,000	227,447,000	225,135,000	222,995,000	220,863,000	218,733,000
Total Less xxxxxxxxxxxx & Public and Privat	233,861,000	231,532,000	229,203,000	226,890,000	224,578,000	222,438,000	220,306,000	218,176,000

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
RWL - Calculation of Receipts with Lag	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-8

Fiscal Year	Proposed Increase	Months Effective	Cumulative Increase 2017 - 2024	Cumulative Increase 2019 - 2024	Cumulative Increase 2020 - 2024	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						Number of months at Existing Rates	Number of months at COS Rates	Billings (a) LagRate-5	Cumulative Percent Increase (b) LagRate-7	FY 2019 COS Rate LagRate-9	FY 2020 COS Rate	FY 2021 COS Rate	FY 2022 COS Rate	Adjusted Billings (c) \$	Receipts Factor (d)				FY 2019 \$ (6) x (7)
Line No.															FY 2019 (e) %	FY 2020 %	FY 2021 %	FY 2022 %	
Financial Planning Model																			
2017	0.00%	6	100.00%																
2018	0.00%	10	100.00%																
2019	0.30%	12	100.30%	100.30%															
2020	2.60%	10	102.91%	102.91%	102.60%														
2021	2.60%	10	105.58%	105.58%	105.27%														
2022	8.60%	10	114.66%	114.66%	114.32%														
2023	8.60%	10	124.52%	124.52%	124.15%														
2024	2.70%	10	127.89%	127.89%	127.50%														
SERVICE CHARGE																			
All classes less xxxxxxxxxx and fir																			
Existing Rates																			
1	FY 2019	0.0	41,767,403	100.00%										0	85.90	9.08	1.56		0
Adjusted COS Rates Effective July 1, 2018																			
2	FY 2019	12.0	37,977,000	100.00%	103.09%									39,150,000	85.90	9.08	1.56		33,630,000
	FY 2020	10.0	37,464,000	102.91%	103.09%	103.35%								34,230,000		85.90	9.08	1.56	
	FY 2021	10.0	36,951,000	105.58%	103.09%	103.35%	103.40%							35,817,000			85.90	9.08	
	FY 2022	10.0	36,477,000	114.66%	103.09%	103.35%	103.40%	#N/A						#N/A				85.90	
Increase in service charge deposit due to rate increase (f)																			
xxxxxxx and Fir																			
Existing Rates																			
3	FY 2019	0.0	3,016,006	100.00%										0	100.00	0.00	0.00		0
Adjusted COS Rates Effective July 1, 2018																			
4	FY 2019	12.0	3,027,000	100.00%	103.09%									3,121,000	100.00	0.00	0.00		3,121,000
	FY 2020	10.0	3,027,000	102.91%	103.09%	103.35%								2,766,000		100.00	0.00	0.00	
	FY 2021	10.0	3,027,000	105.58%	103.09%	103.35%	103.40%							2,934,000			100.00	0.00	
	FY 2022	10.0	3,027,000	114.66%	103.09%	103.35%	103.40%	#N/A						#N/A				100.00	
Increase in xxxxxxxxxx service charge deposit due to rate increase																			
VOLUME CHARGE																			
All classes less xxxxxxxxxx and fir																			
Existing Rates																			
5	FY 2019	0.5	233,393,403	100.00%										9,725,000	85.90	9.08	1.56		8,354,000
Adjusted COS Rates Effective July 1, 2018																			
6	FY 2019	11.5	229,203,000	100.00%	103.09%									226,440,000	85.90	9.08	1.56		194,512,000
	FY 2020	2.5	226,890,000	102.91%	103.09%	103.35%								245,669,000		85.90	9.08	1.56	
	FY 2021	2.5	224,578,000	105.58%	103.09%	103.35%	103.40%							259,843,000			85.90	9.08	
	FY 2022	2.5	222,438,000	114.66%	103.09%	103.35%	103.40%	#N/A						#N/A				85.90	

XXXXXXXXXX and fire														
Existing Rates														
7	FY 2019	0.5	373,707	100.00%					16,000	100.00	0.00	0.00		16,000
Adjusted COS Rates Effective July 1, 2018														
8	FY 2019	11.5	557,000	100.00%	103.09%				550,000	100.00	0.00	0.00		550,000
	FY 2020	2.5	9.5	557,000	102.91%	103.09%	103.35%		603,000		100.00	0.00	0.00	
	FY 2021	2.5	9.5	557,000	105.58%	103.09%	103.35%	103.40%	644,000			100.00	0.00	
	FY 2022	2.5	9.5	557,000	114.66%	103.09%	103.35%	103.40%	#N/A	#N/A			100.00	
SURCHARGE RATES														
Existing Rates														
9	FY 2019	0.0	na	100.00%					0	85.90	9.08	1.56		0
Adjusted COS Rates Effective July 1, 2018														
10	FY 2019	12.0	na	100.00%	103.09%				0	85.90	9.08	1.56		0
	FY 2020	10.0	na	102.91%	103.09%				0		85.90	9.08	1.56	
	FY 2021	10.0	na	105.58%	103.09%				0			85.90	9.08	
	FY 2022	10.0	na	114.66%	103.09%				0				85.90	
11	FY 2017 Billings (LagRate-4)		268,021,764	100.00%					268,022,000		1.56			4,181,000
12	FY 2018 Billings (LagRate-4)		277,069,120	100.00%					277,069,000		9.08	1.56		25,158,000
13	Total Receipts													269,522,000

- (a) Billings to General Service customers under existing rates reflect an adjustment to gross water billings of 0.00%. A billtab adjustment was made to determine the proposed rates. 265,835,000
- (b) Adjusted billings under existing rates should reflect proposed increases in effect prior to the test year. Adjusted billings under COS rates should reflect proposed increases after the test year. 3,687,000
- (c) Adjusted service charge billings are equal to the number of months effective times billings times the cumulative percent increase times the COS rate adjustment. 269,522,000
 Test year adjusted volume charge billings are equal to the number of months effective times billings times the cumulative percent increase times the COS rate adjustment. For each year after the test year, the adjusted volume charge rates time the previous year's billings times the previous year's cumulative percent increase plus the number of months at COS rates times billings times the cumulative percent increase times the COS rate adjustment.
 Adjusted billings for FY 2017 and FY 2018 are equal to the billings times the cumulative percent increase times the 0.00% billings adjustment.
- (d) Receipts Factor from Financial Planning Model .
- (e) Receipt factor will need to be adjusted to recognize a partial year rate increase.
- (f) Increase in service charge deposit calculated as 2 months of billings times the cumulative percent increase.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
TYRWL - Test Year Retail Receipts with Lag	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-9
NOT USED IN CURRENT ANALYSIS							
Percent Increase in Rates Required:	0.999952	0.999989	0.967349	#N/A	Input from Model		
USE:	1.0309	1.03350	1.03400	#N/A	Application for		
					FY 2020, FY 2021 and FY 2022		
Reference	FY 2019	FY 2020	FY 2021	FY 2022	FY 2019	FY 2020	FY 2021
	\$	\$	\$	\$	\$	\$	\$
LagRate-8 Total Retail Receipts less Public Fire Requirements:	269,522,000	273,124,000	287,260,000	#N/A	Bucks County		
COS	273,268,000	276,985,970	281,815,785	300,642,539	Rate Billings	0	1,000
Less Wholesale (Including Mgmt Fee)	(3,759,000)	(3,865,000)	(3,935,000)	#N/A	Mgmt Fee	12.0%	0
Net Retail COS	269,509,000	273,120,970	277,880,785	#N/A	Total Bucks	Retcos-4	0
Less Public Fire Protection					Aqua PA		
Under Old Rates					Rate Billings	LagRate-11	3,417,000
Under New Rates	0	0	0	#N/A	Mgmt Fee	10.0%	342,000
Less Monthly Billing Incr. in Volume Charges					Carrying		351,000
Total Requirements	269,509,000	273,120,970	277,880,785	#N/A	Total Aqua PA		3,759,000
Revenue Surplus/(Deficiency)	13,000	3,030	9,379,215	#N/A	Total Wholesale w/Mgmt Fee		3,864,000
Total Increasable Receipts	231,813,000	267,919,000	287,108,000	#N/A			3,935,000
ADJUSTMENT FACTOR REQUIRED	-0.0048%	-0.0011%	-3.2651%	#N/A			269,509,000
%Rate Adjustment	0.01%	3.66%	6.09%	#N/A			

Test Year 2019 Receipts of Test Year 2019 Billings	
General Customers	\$
LagRate-8 Service Charge	33,630,000
LagRate-8 Volume Charge	202,866,000
Total General Customers	236,496,000
xxxxxxxxxx	
LagRate-8 Service Charge	3,121,000
LagRate-8 Volume Charge	566,000
Total xxxxxxxxxxxx	3,687,000
LagRate-8 Surcharge	0
Total	240,183,000

	FY 2019 Receipts (a)	FY 2019 Billings (a)	Percent	FY 2020 Receipts (a)	FY 2020 Billings (a)	Percent	FY 2021 Billings (a)	FY 2022 Billings (a)
LagRate-8 Current Year	236,496,000	275,315,000	85.90%	240,183,000	279,899,000	85.90%	280,025,072	#N/A
LagRate-8 First Prior Year	25,158,000	277,069,000	9.08%	24,999,000	275,315,000	9.08%		
LagRate-8 Second Prior Year	4,181,000	268,022,000	1.56%	4,322,000	277,069,000	1.56%		
	265,835,000			269,755,000				

(a) Excludes wholesale

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
COSWL - Inflated COS Rates to Account for Lag	P.N. 135647.0100	February 12, 2018 1:24 a.m.					LagRate-10

(1)	(2)	(3)	(4)	(5)
Meter Size inches	Meter Code	Adjustment Factor % <u>LagRate-9</u>	Gen Svc Residential Service Charge \$/Bill <u>LagRate-2</u> x Col. (3)	Discount Residential Service Charge (a) \$/Bill <u>LagRate-2</u> x Col. (3)
5/8	R	103.1%	6.18	4.60
3/4	Z	103.1%	7.13	5.40
1	Q	103.1%	9.48	7.10
1 1/4	Y	103.1%	12.41	9.30
1 1/2	P	103.1%	14.72	11.00
2	X	103.1%	21.76	16.30
3	O	103.1%	37.36	28.00
4	W	103.1%	65.10	48.80
6	N	103.1%	125.96	94.50
8	V	103.1%	196.44	147.30
10	E	103.1%	285.03	213.80
12	T	103.1%	498.73	374.10
14	H	103.1%	530.72	398.00

	First Block <u>0 - 2 Mcf</u> \$/Mcf	Second Block <u>3 - 100 Mcf</u> \$/Mcf	Third Block <u>101 - 2,000 Mcf</u> \$/Mcf	Fourth Block <u>>2,000 Mcf</u> \$/Mcf
	LagRate-2 x Column (3)			
General Service Volume Charge	43.93	37.78	29.28	28.48
Discount Volume Charge (a)	32.94	28.34	21.96	21.36

Fire Protection

Connection Size	Monthly Service Charge
Up Through 4	26.38
6	48.51
8	72.52
10	106.90
12	165.71

(a) Discount rate applies to Senior Citizens, and Charities.
A 5% discount applies to the Housing Authority.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
REVCOMP - Comparison of Revenue Under Exist. Rates to COS	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-11

TABLE W-17

**COMPARISON OF TEST YEAR COSTS OF SERVICE
AND ADJUSTED COST OF SERVICE
WITH REVENUES UNDER EXISTING RATES
TEST YEAR 2019**

Line No.	Customer Class	(1) Revenue Under Existing Rates (a) \$	(2) Allocated Cost of Service \$ Retcos-4	(3) Adjusted Cost of Service \$ Retcos-4	(4) Indicated Increase (Decrease) Required % (3)/(1) - 1
1	Senior Citizens	4,808,089	6,139,000	4,712,000	-2.0%
2	Residential	161,416,441	156,235,000	159,910,000	-0.9%
3	Commercial	59,524,948	57,756,000	59,115,000	-0.7%
4	Industrial	3,306,084	3,113,000	3,186,000	-3.6%
5	Public Utilities	431,736	379,000	388,000	-10.1%
6	Subtotal General Service	229,487,298	223,622,000	227,311,000	-0.9%
7	Housing Authority	6,156,440	6,739,000	6,553,000	6.4%
8	Charities & Schools	5,727,773	7,299,000	5,603,000	-2.2%
9	Hospitals & University	7,343,824	9,986,000	7,665,000	4.4%
10	Hand Billed	16,985,587	19,598,000	20,059,000	18.1%
11	Scheduled (Flat Rate)	1,227	0	0	-100.0%
12	xxxxxxxxxx	0	0	0	NA
13	xxxxxxxxxx	0	0	0	0.0%
	Fire Protection				
14	Private	3,271,631	2,265,000	2,318,000	-29.1%
	Public				
15	Standard Pressure	0	0	0	NA
16	High Pressure (b)	0	0	0	NA
17	Subtotal Public Fire Protection	0	0	0	NA
18	Subtotal Retail Service	268,973,780	269,509,000	269,509,000	0.2%
19	Bucks County Wholesale Service	0	0	0	0.0%
20	Aqua PA	3,246,853	3,417,000	3,417,000	5.2%
21	Total Wholesale	3,246,853	3,417,000	3,417,000	5.2%
22	Total System	272,220,633	272,926,000	272,926,000	0.3%

(a) Revenue Under Existing Rates calculation:

(b) Reflects gradual decommissioning of the system.

	Fiscal Year Ending June 30						
	2017 Billings \$1,000	2017 Adjusted Billings (1) \$1,000	2018 Billings \$1,000	2018 Adjusted Billings (1) \$1,000	2019 Billings \$1,000	2019 Adjusted Billings (1) \$1,000	2019 Receipts \$1,000
Test Year Revenues under existing rates:	<u>LagRate-4</u>	1.56%	<u>LagRate-4</u>	9.08%	<u>LagRate-4</u>	85.90%	
Senior Citizens	4,923	4,923	5,037	5,037	4,975	4,975	4,808
Residential	164,443	164,443	168,895	168,895	167,073	167,073	161,416
Commercial	59,211	59,211	61,787	61,787	61,689	61,689	59,525
Industrial	3,273	3,273	3,425	3,425	3,427	3,427	3,306
Public Utilities	427	427	447	447	448	448	432
Housing Authority	6,093	6,093	6,372	6,372	6,383	6,383	6,156
Charities & Schools	5,658	5,658	5,928	5,928	5,939	5,939	5,728
Hospitals & Universities	7,249	7,249	7,600	7,600	7,614	7,614	7,344
Hand Billed	16,744	16,744	17,577	17,577	17,612	17,612	16,986
Scheduled (Flat Rate)	1	1	1	1	1	1	1
xxxxxxxxx	0	0	0	0	0	0	0
xxxxxxxxx	0	0	0	0	0	0	0 No Lag
Public Fire Protection	7,617	7,617	7,866	7,866	0	0	0 No Lag
Private Fire Protection	3,343	3,343	3,389	3,389	3,390	3,390	3,390 No Lag
Subtotal	278,982	278,982	288,324	288,324	278,551	278,551	269,092
Bucks County	0	0	0	0	0	0	0 0.08333 factor - One month lag
Aqua PA	3,339	3,339	3,364	3,364	3,364	3,364	3,364 0.08333 factor - One month lag
Total	282,320	282,320	291,688	291,688	281,914	281,914	272,455

(1) Adjusted billings after 2016 reflect an adjustment to General Service billings of 0.00%.

(b) Public high pressure fire system revenue under existing rates is included with standard pressure fire protection.

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
CPRATES - Water & Wastewater Proposed Rates	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-12

Reference A: Financial Planning Model - Customer
 Reference B: SCOS Lagrate-25

**FY 2019 PROPOSED RATES
 FOR GENERAL SERVICE**

Service Charges

Meter Size inches	Existing Rates			Proposed Rates		
	Water	Wastewater	Total	Water	Wastewater	Total
	\$/month	\$/month	Existing \$/month	\$/month	\$/month	Proposed \$/month
	<u>LagRate-2</u>	REF. A		<u>LagRate-10</u>	REF. B	
5/8	6.61	7.17	13.78	6.18	7.20	13.38
3/4	7.59	8.76	16.35	7.13	9.16	16.29
1	10.02	12.34	22.36	9.48	13.39	22.87
1 1/4	13.03	16.87	29.90	12.41	18.80	31.21
1 1/2	15.38	20.68	36.06	14.72	23.49	38.21
2	22.66	31.41	54.07	21.76	36.19	57.95
3	38.70	55.65	94.35	37.36	65.17	102.53
4	67.61	95.42	163.03	65.10	110.83	175.93
6	130.56	186.85	317.41	125.96	218.35	344.31
8	203.32	294.17	497.49	196.44	345.40	541.84
10	295.18	425.36	720.54	285.03	498.57	783.60
12	514.45	763.12	1,277.57	498.73	905.54	1,404.27

Quantity Charges

Water Usage	Existing \$/Mcf	Proposed \$/Mcf
	<u>LagRate-2</u>	<u>LagRate-10</u>
First 2 Mcf	43.08	43.93
Next 98 Mcf	37.67	37.78
Next 1,900 Mcf	29.31	29.28
Over 2,000 Mcf	28.51	28.48

Wastewater Usage

Per Mcf	30.55	31.76
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Surcharge Rates

BOD (\$/lb in excess of 250 mg/l)	0.350	0.407
SS (\$/lb in excess of 350 mg/l)	0.369	0.398

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WPRATES - Water Proposed Rates	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-13

TABLE W-18 and TABLE W-19

PROPOSED WATER RATES

Service Charge

Meter Size inches	Monthly Charge \$	FY 2020		FY 2021		FY 2022	
	LagRate-12						
5/8	6.18	6.40	103.56%	6.79	106.09%	#N/A	#N/A
3/4	7.13	7.37	103.37%	7.82	106.11%	#N/A	#N/A
1	9.48	9.77	103.06%	10.36	106.04%	#N/A	#N/A
1 1/4	12.41	12.74	102.66%	13.52	106.12%	#N/A	#N/A
1 1/2	14.72	15.09	102.51%	16.01	106.10%	#N/A	#N/A
2	21.76	22.27	102.34%	23.63	106.11%	#N/A	#N/A
3	37.36	38.16	102.14%	40.48	106.08%	#N/A	#N/A
4	65.10	66.56	102.24%	70.61	106.08%	#N/A	#N/A
6	125.96	128.66	102.14%	136.49	106.09%	#N/A	#N/A
8	196.44	200.54	102.09%	212.75	106.09%	#N/A	#N/A
10	285.03	291.04	102.11%	308.76	106.09%	#N/A	#N/A
12	498.73	508.41	101.94%	539.36	106.09%	#N/A	#N/A

Quantity Charge

Monthly Water Usage	Charge Per Mcf \$	FY 2020		FY 2021		FY 2022	
	LagRate-12						
First 2 Mcf	43.93	45.15	102.78%	47.90	106.09%	#N/A	#N/A
Next 98 Mcf	37.78	38.92	103.02%	41.29	106.09%	#N/A	#N/A
Next 1,900 Mcf	29.28	30.16	103.01%	32.00	106.10%	#N/A	#N/A
Over 2,000 Mcf	28.48	29.34	103.02%	31.13	106.10%	#N/A	#N/A

Private Fire Service

Size of Meter or Connection:	Monthly Charge \$	Prior to Lag Factor Rates-3	FY 2020		FY 2021		FY 2022	
	Rates-3*1.031(LagRate-9)							
4" or less	26.38	25.59	27.36	103.71%	29.03	106.10%	#N/A	#N/A
6"	48.51	47.06	50.28	103.65%	53.34	106.09%	#N/A	#N/A
8"	72.52	70.35	75.11	103.57%	79.68	106.08%	#N/A	#N/A
10"	106.90	103.70	110.75	103.60%	117.49	106.09%	#N/A	#N/A
12"	165.71	160.74	171.34	103.40%	181.77	106.09%	#N/A	#N/A

Public Fire Protection

Standard Pressure:	\$0	Annually	LagRate-11	0	0.00%	#N/A	#N/A	#N/A
High Pressure:	\$0	Annually	LagRate-11	0		0	0	

Mcf - thousand cubic feet

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
BTAB - BillTab Billing Percentages	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-14

Reference: LINKS - WREV11 PROJECTED CHECK 20111219.XLS

	(1)	(2)	(3)	(4)	(5)	(6)
	Total Water Service Charges	Total Water Volume Charges	Total Water Billings	Percent of Total Billings	Total Water Billings Excluding Senior Citizens	Percent of Total Billings Excluding Senior Citizens
	\$	\$	\$	%	\$	%
			(1)+(2)		(1)+(2)	
Senior Citizens	1,153,000	3,659,000	4,812,000	1.78%	-	0.00%
Residential	30,606,000	131,588,000	162,194,000	59.90%	162,194,000	69.65%
Commercial	4,545,000	55,413,000	59,958,000	22.14%	59,958,000	25.75%
Industrial	199,000	3,128,000	3,327,000	1.23%	3,327,000	1.43%
Public Utilities	41,000	394,000	435,000	0.16%		
Housing Authority	482,000	5,727,000	6,209,000	2.29%		
Charities & Schools	506,000	5,266,000	5,772,000	2.13%		
Hospitals & Universities	254,000	7,135,000	7,389,000	2.73%	7,389,000	3.17%
Hand Billed	191,000	16,893,000	17,084,000	6.31%		
xxxxxxxxxx	0	0	0	0.00%		
Scheduled (Flat Rate)	0	0	0	0.00%		
xxxxxxxxxx	0	0	0	0.00%		
Fire Protection (Private)	3,027,000	557,000	3,584,000	1.32%		
Fire Protection (Public)	0	0	0	0.00%		
	41,004,000	229,760,000	270,764,000		232,868,000	

File: WCOS17_19_ver8_rates.xls		Philadelphia Water Department (PWD)			DRAFT - for Discussion Only			Test Year 2019		Budget Yr 2017		Ver. 1a			
WSERVCHGS - Components of Water Service Charges		P.N. 135647.0100			February 12, 2018 0:56 a.m.							LagRate-15			
	Equivalent Bills	Equivalent Meters	Equivalent Services	FY 2018 Water Service Charge				FY 2019 Water Service Charge				FY 2020 Water Service Charge			
				Billing Costs \$	Metering Costs \$	Warranty Costs \$	Total Costs \$	Billing Costs \$	Metering Costs \$	Warranty Costs \$	Total Costs \$	Billing Costs \$	Metering Costs \$	Warranty Costs \$	Total Costs \$
Unit Costs				4.1197	1.8669	0.0000		4.1197	1.8669	0.0000		4.1197	1.8669	0.0000	
Units	Rates-2	Rates-2		\$/equiv bill	\$/equiv mtr/bill	\$/equiv srv/bill									
5/8 Inch Meter: 2018 COS Service Charge	Units-3	Units-4	Units-4											LagRate-13	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9 (a)	1.0	1.0	1.0	4.1197	1.8669	0.0000		4.1197	1.8669	0.0000		4.1197	1.8669	0.0000	
Adjusted COS Service Charge (Rounded)				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Times (100%-25%) Charities Discount				4.26	1.92	0.00	6.18	4.41	1.99	0.00	6.40	4.67	2.12	0.00	
				3.20	1.44	0.00	4.64	3.31	1.49	0.00	4.80	3.50	1.59	0.00	
														5.09	
3/4 Inch Meter: 2018 COS Service Charge	1.0	1.5	1.0	4.1197	2.8004	0.0000		4.1197	2.8004	0.0000		4.1197	2.8004	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				4.24	2.89	0.00	7.13	4.38	2.99	0.00	7.37	4.65	3.17	0.00	
Times (100%-25%) Charities Discount				3.18	2.17	0.00	5.35	3.29	2.24	0.00	5.53	3.49	2.38	0.00	
														5.87	
1 Inch Meter: 2018 COS Service Charge	1.1	2.5	1.1	4.5317	4.6673	0.0000		4.5317	4.6673	0.0000		4.5317	4.6673	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				4.67	4.81	0.00	9.48	4.78	4.99	0.00	9.77	5.07	5.29	0.00	
Times (100%-25%) Charities Discount				3.50	3.61	0.00	7.11	3.59	3.74	0.00	7.33	3.80	3.97	0.00	
														10.36	
														7.77	
1-1/4 Inch Me 2018 COS Service Charge	1.2	3.8	1.2	4.9436	7.0942	0.0000		4.9436	7.0942	0.0000		4.9436	7.0942	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				5.10	7.31	0.00	12.41	5.16	7.58	0.00	12.74	5.48	8.04	0.00	
Times (100%-25%) Charities Discount				3.83	5.48	0.00	9.31	3.87	5.69	0.00	9.56	4.11	6.03	0.00	
														13.52	
														10.14	
1-1/2 Inch Me 2018 COS Service Charge	1.2	5.0	1.2	4.9436	9.3345	0.0000		4.9436	9.3345	0.0000		4.9436	9.3345	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				5.10	9.62	0.00	14.72	5.12	9.97	0.00	15.09	5.43	10.58	0.00	
Times (100%-25%) Charities Discount				3.82	7.22	0.00	11.04	3.84	7.48	0.00	11.32	4.07	7.94	0.00	
														16.01	
														12.01	
2 Inch Meter: 2018 COS Service Charge	1.5	8.0	2.1	6.1796	14.9352	0.0000		6.1796	14.9352	0.0000		6.1796	14.9352	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				6.36	15.40	0.00	21.76	6.31	15.96	0.00	22.27	6.70	16.93	0.00	
Times (100%-25%) Charities Discount				4.77	11.55	0.00	16.32	4.73	11.97	0.00	16.70	5.02	12.70	0.00	
														23.63	
														17.72	
3 Inch Meter: 2018 COS Service Charge	2.0	15.0		8.2394	28.0035	0.0000		8.2394	28.0035	0.0000		8.2394	28.0035	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				8.49	28.87	0.00	37.36	8.24	29.92	0.00	38.16	8.73	31.75	0.00	
Times (100%-25%) Charities Discount				6.37	21.65	0.00	28.02	6.18	22.44	0.00	28.62	6.55	23.81	0.00	
														40.48	
														30.36	
4 Inch Meter: 2018 COS Service Charge	4.0	25.0		16.4788	46.6725	0.0000		16.4788	46.6725	0.0000		16.4788	46.6725	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				16.99	48.11	0.00	65.10	16.69	49.87	0.00	66.56	17.70	52.91	0.00	
Times (100%-25%) Charities Discount				12.75	36.08	0.00	48.83	12.52	37.40	0.00	49.92	13.28	39.68	0.00	
														70.61	
														52.96	
6 Inch Meter: 2018 COS Service Charge	7.0	50.0		28.8379	93.3450	0.0000		28.8379	93.3450	0.0000		28.8379	93.3450	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				29.73	96.23	0.00	125.96	28.91	99.75	0.00	128.66	30.66	105.83	0.00	
Times (100%-25%) Charities Discount				22.30	72.17	0.00	94.47	21.69	74.81	0.00	96.50	23.00	79.37	0.00	
														136.49	
														102.37	
8 Inch Meter: 2018 COS Service Charge	10.0	80.0		41.1970	149.3520	0.0000		41.1970	149.3520	0.0000		41.1970	149.3520	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				42.47	153.97	0.00	196.44	40.94	159.60	0.00	200.54	43.43	169.32	0.00	
Times (100%-25%) Charities Discount				31.85	115.48	0.00	147.33	30.71	119.70	0.00	150.41	32.57	126.99	0.00	
														212.75	
														159.56	
10 Inch Meter 2018 COS Service Charge	15.0	115.0		61.7955	214.6935	0.0000		61.7955	214.6935	0.0000		61.7955	214.6935	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				63.70	221.33	0.00	285.03	61.62	229.42	0.00	291.04	65.36	243.40	0.00	
Times (100%-25%) Charities Discount				47.77	166.00	0.00	213.77	46.21	172.07	0.00	218.28	49.02	182.55	0.00	
														308.76	
														231.57	
12 Inch Meter 2018 COS Service Charge	20.0	215.0		82.3940	401.3835	0.0000		82.3940	401.3835	0.0000		82.3940	401.3835	0.0000	
Times Combined Rate Increase and Lag Factor Calc from LagRate-9				1.0309	1.0309	1.0309		1.0686	1.0686	1.0686		1.1337	1.1337	1.1337	
Adjusted COS Service Charge (Rounded)				84.94	413.79	0.00	498.73	79.49	428.92	0.00	508.41	84.31	455.05	0.00	
Times (100%-25%) Charities Discount				63.71	310.34	0.00	374.05	59.62	321.69	0.00	381.31	63.23	341.29	0.00	
														539.36	
														404.52	

(a) Reference: LagRate-9 103.0900 * 1.0366 = 106.8631 and 103.0900 * 1.0366 * 1.0609 = 113.3694

File: WCOS17_19_ver8_rates.xls	Philadelphia Water Department (PWD)	DRAFT - for Discussion Only	Test Year	2019	Budget Yr	2017	Ver. 1a
WSERVCHGS1 - Summary of Components Water Service Charges	P.N. 135647.0100	February 12, 2018 0:56 a.m.					LagRate-16

Rate Components of Water Service Charges

Black & Veatch	Regular Rates				Discount Rates				Reference
	Metering	Billing	Warranty	Total	Metering	Billing	Warranty	Total	
	Costs \$/bill	Costs \$/bill	Costs \$/bill	\$/bill	Costs \$/bill	Costs \$/bill	Costs \$/bill	\$/bill	
FY 2018 Service Charges									
5/8 Inch Meter:	1.92	4.26	0.00	6.18	1.44	3.20	0.00	4.64	LagRate-15
3/4 Inch Meter:	2.89	4.24	0.00	7.13	2.17	3.18	0.00	5.35	LagRate-15
1 Inch Meter:	4.81	4.67	0.00	9.48	3.61	3.50	0.00	7.11	LagRate-15
1-1/4 Inch Meter:	7.31	5.10	0.00	12.41	5.48	3.83	0.00	9.31	LagRate-15
1-1/2 Inch Meter:	9.62	5.10	0.00	14.72	7.22	3.82	0.00	11.04	LagRate-15
2 Inch Meter:	15.40	6.36	0.00	21.76	11.55	4.77	0.00	16.32	LagRate-15
3 Inch Meter:	28.87	8.49	0.00	37.36	21.65	6.37	0.00	28.02	LagRate-15
4 Inch Meter:	48.11	16.99	0.00	65.10	36.08	12.75	0.00	48.83	LagRate-15
6 Inch Meter:	96.23	29.73	0.00	125.96	72.17	22.30	0.00	94.47	LagRate-15
8 Inch Meter:	153.97	42.47	0.00	196.44	115.48	31.85	0.00	147.33	LagRate-15
10 Inch Meter:	221.33	63.70	0.00	285.03	166.00	47.77	0.00	213.77	LagRate-15
12 Inch Meter:	413.79	84.94	0.00	498.73	310.34	63.71	0.00	374.05	LagRate-15
FY 2019 Service Charges									
5/8 Inch Meter:	1.99	4.41	0.00	6.40	1.49	3.31	0.00	4.80	LagRate-15
3/4 Inch Meter:	2.99	4.38	0.00	7.37	2.24	3.29	0.00	5.53	LagRate-15
1 Inch Meter:	4.99	4.78	0.00	9.77	3.74	3.59	0.00	7.33	LagRate-15
1-1/4 Inch Meter:	7.58	5.16	0.00	12.74	5.69	3.87	0.00	9.56	LagRate-15
1-1/2 Inch Meter:	9.97	5.12	0.00	15.09	7.48	3.84	0.00	11.32	LagRate-15
2 Inch Meter:	15.96	6.31	0.00	22.27	11.97	4.73	0.00	16.70	LagRate-15
3 Inch Meter:	29.92	8.24	0.00	38.16	22.44	6.18	0.00	28.62	LagRate-15
4 Inch Meter:	49.87	16.69	0.00	66.56	37.40	12.52	0.00	49.92	LagRate-15
6 Inch Meter:	99.75	28.91	0.00	128.66	74.81	21.69	0.00	96.50	LagRate-15
8 Inch Meter:	159.60	40.94	0.00	200.54	119.70	30.71	0.00	150.41	LagRate-15
10 Inch Meter:	229.42	61.62	0.00	291.04	172.07	46.21	0.00	218.28	LagRate-15
12 Inch Meter:	428.92	79.49	0.00	508.41	321.69	59.62	0.00	381.31	LagRate-15
FY 2020 Service Charges									
5/8 Inch Meter:	2.12	4.67	0.00	6.79	1.59	3.50	0.00	5.09	LagRate-15
3/4 Inch Meter:	3.17	4.65	0.00	7.82	2.38	3.49	0.00	5.87	LagRate-15
1 Inch Meter:	5.29	5.07	0.00	10.36	3.97	3.80	0.00	7.77	LagRate-15
1-1/4 Inch Meter:	8.04	5.48	0.00	13.52	6.03	4.11	0.00	10.14	LagRate-15
1-1/2 Inch Meter:	10.58	5.43	0.00	16.01	7.94	4.07	0.00	12.01	LagRate-15
2 Inch Meter:	16.93	6.70	0.00	23.63	12.70	5.02	0.00	17.72	LagRate-15
3 Inch Meter:	31.75	8.73	0.00	40.48	23.81	6.55	0.00	30.36	LagRate-15
4 Inch Meter:	52.91	17.70	0.00	70.61	39.68	13.28	0.00	52.96	LagRate-15
6 Inch Meter:	105.83	30.66	0.00	136.49	79.37	23.00	0.00	102.37	LagRate-15
8 Inch Meter:	169.32	43.43	0.00	212.75	126.99	32.57	0.00	159.56	LagRate-15
10 Inch Meter:	243.40	65.36	0.00	308.76	182.55	49.02	0.00	231.57	LagRate-15
12 Inch Meter:	455.05	84.31	0.00	539.36	341.29	63.23	0.00	404.52	LagRate-15