PUBLIC HEARING ON
PROPOSED WATER AND WASTEWATER RATES
2015

WATER DEPARTMENT
PHILADELPHIA, PENNSYLVANIA

BLACK & VEATCH CALCULATIONS
SUPPORTING EXHIBITS BV-E1, BV-E2 AND
BV-E3

FINPLAN15

DECEMBER 2015

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FINPLAN15.XLS

INDEX

INDEX TO BLACK & VEATCH CALCULATIONS SUPPORTING DECEMBER 2015 EXHIBITS BV-E1, BV-E2, AND BV-E3 FOR THE PUBLIC HEARING ON PROPOSED WATER AND WASTEWATER RATES 2015

The calculations supporting the December 2015 exhibits BV-E1, BV-E2 and BV-E3 are developed in three computer model workbook files: FINPLAN15.XLS, WCOS15_2017.XLS, and SCOS15_2017.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., Finplan2015.XLS) and the worksheet (e.g., Customer) that is printed.

The Finplan2015.XLS workbook file develops projected revenue requirements and cash flows for each utility and the combined utilities. The WCOS15_2017.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 SCOS15_2017.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:

- Exhibits Tables Reference Index – These pages provide calculation page references for the tables in Exhibits 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	2015	2016	2017	2018	2019	2020	2021
Index	3	4	5	6	7	8	9
Account - Small Decrease	-2.3%	-2.3%	-2.4%	-2.4%	-2.5%	-2.5%	-2.6%
Account - Small Growth	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
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		2015	2016	2017	2018	2019	2020	2021
Volume - Small Decrease (SC)		0.0%	-1.5%	-1.5%	-1.5%	-1.5%	-1.5%	-1.5%
Volume - Small Decrease		0.0%	-1.5%	-1.5%	-1.5%	-1.5%	-1.5%	-1.5%
Volume - Small Decrease with Adjustment		0.0%	-1.5%	-1.5%	-1.5%	-1.3%	-1.1%	-1.2%
Volume - Small Growth		0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Volume - Med Growth		0.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Volume - No Growth		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Volume - No Growth with Adjustment		0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.3%
AMI Theft Volume Adjustment	TRUE	0.0%	0.0%	0.0%	0.0%	0.221%	0.372%	0.314%
Projected Revenue		454,664	451,689	449,138	446,209	443,733	441,673	439,609
Original Projection		454,664	451,689	449,138	446,209	443,315	440,423	437,530
Impact		-	-	-	-	417	1,250	2,079
(Note may include impact of collection factor adjustment)								

Other Revenue							Assumptions - 3
	2015	2016	2017	2018	2019	2020	2021
Water	1.42%	1.45%	1.45%	1.45%	1.45%	1.45%	1.45%
Sewer	1.42%	1.45%	1.45%	1.45%	1.45%	1.45%	1.45%
Interest Income	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%
Misc City Revenues	2,109	1,960	1,960	1,960	1,960	1,960	1,960
Other	11,223	8,000	8,000	8,000	8,000	8,000	8,000
State & Federal Grants	1,083	1,000	1,000	1,000	1,000	1,000	1,000
Permits Issued by L&I (L&I)	3,840	3,000	2,480	2,480	2,480	2,480	2,480
Miscellaneous (Procurement)	327	300	300	300	300	300	500
Affordability Program Discount Adjustment	-	-	-	(16,100)	(16,800)	(17,600)	(18,600)

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%
Affordability Program Discount Adjustment	44.0%	56.0%

Water - Customer Billed Volume Per Account (Mcf/Account)

Assumptions - 4

	USE	Historical Averages				Historical Usage Per Account				
	2015	1 Year	2 Year	3 Year	5 Year	2011	2012	2013	2014	2015
Senior Citizens										
5/8" Meter	5.70	5.74	5.69	5.70	5.68	5.77	5.55	5.72	5.63	5.74
> 5/8" Meter	8.30	7.05	8.33	10.38	12.24	16.00	14.05	14.50	9.60	7.05
General Service (Residential)										
5/8" Meter	7.10	7.09	7.08	7.17	7.32	7.94	7.15	7.36	7.07	7.09
> 5/8" Meter	80.00	73.88	79.90	88.50	116.94	207.44	111.77	105.70	85.93	73.88
General Service (Commercial)										
5/8" Meter	11.30	11.50	11.29	11.36	9.05	0.00	11.16	11.49	11.08	11.50
> 5/8" Meter	146.00	148.49	146.19	149.53	119.51	0.00	148.97	156.22	143.89	148.49
General Service (Industrial)										
5/8" Meter	11.25	11.37	11.22	11.06	8.83	0.00	10.97	10.73	11.07	11.37
> 5/8" Meter	160.00	158.47	158.74	162.08	132.45	0.00	176.02	168.77	159.01	158.47
General Service (Public Utilities)										
5/8" Meter	10.20	8.96	10.20	11.34	9.25	0.00	12.26	13.60	11.45	8.96
> 5/8" Meter	111.50	124.31	111.45	112.46	87.58	0.00	100.51	114.49	98.59	124.31
General Service (Excluding Senior Citizens)										
5/8" Meter	NA	7.38	7.35	7.44	7.53	7.94	7.40	7.62	7.33	7.38
> 5/8" Meter	NA	118.78	120.59	126.60	144.92	207.44	137.38	138.61	122.40	118.78
General Service (Including Senior Citizens)										
5/8" Meter	NA	7.31	7.29	7.37	7.46	7.85	7.32	7.54	7.26	7.31
> 5/8" Meter	NA	118.75	120.55	126.55	144.88	207.40	137.33	138.55	122.35	118.75
PHA	29.00	30.25	29.00	28.57	29.00	30.59	28.69	27.72	27.75	30.25
Charities & Schools	76.60	73.67	76.61	77.76	95.26	164.32	78.69	80.07	79.55	73.67
Hospital/University	580.00	543.35	578.91	599.42	496.13	0.00	682.40	640.44	614.46	543.35
Hand Bill	2,100.00	2,125.74	2,096.87	2,113.26	1,666.02	0.00	1,990.33	2,146.03	2,068.00	2,125.74
City Leased Properties	123.00	128.35	122.83	113.43	88.58	0.00	102.61	94.62	117.31	128.35
Scheduled	10.70	10.35	10.68	9.72	6.98	0.00	5.75	7.80	11.00	10.35
City	244.30	250.04	244.28	246.02	247.57	252.98	246.80	249.50	238.52	250.04
Fire Service	2.70	2.82	2.73	3.43	3.29	1.53	4.65	4.84	2.64	2.82
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
	2015	2016	2017	2018	2019	2020	2021

NOT IN USE

Water - Calculated Billings Adjustment Factor							Assumptions - 6
	2015	2016	2017	2018	2019	2020	2021
Senior Citizens	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
General Service (Residential)	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
General Service (Commercial)	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
General Service (Industrial)	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
General Service (Public Utilities)	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
General Service (Excluding Senior Citizens)	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
PHA	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
Charities & Schools	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
Hospital/University	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
Hand Bill	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
City Leased Properties	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
Scheduled	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
City	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
Fire Service	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
Private Fire (Unmetered)	100.00%	99.50%	99.50%	99.50%	99.50%	99.50%	99.50%
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
	2015	2016	2017	2018	2019	2020	2021
NOT IN USE							

Sewer - Calculated Billings Adjustment Factor							Assumptions - 8
	2015	2016	2017	2018	2019	2020	2021
Senior Citizens	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
General Service (Residential)	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
General Service (Commercial)	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
General Service (Industrial)	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
General Service (Public Utilities)	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
General Service (Excluding Senior Citizens)	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
PHA	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Charities & Schools	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Hospital/University	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Hand Bill	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
City Leased Properties	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Scheduled	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Municipal	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Fire Service	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Sewer	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Groundwater (Non-City)	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
City Groundwater	100.00%	99.21%	99.21%	99.21%	99.21%	99.21%	99.21%
Stormwater	100.00%	100.00%	99.00%	99.00%	99.00%	99.00%	99.00%

Misc Municipal							Assumptions - 9
	2015	2016	2017	2018	2019	2020	2021
Not in Use							
See Other Revenue							

Collection Adjustment Factors								Assumptions - 10
		2015	2016	2017	2018	2019	2020	2021
Current Year		84.80%	84.30%	84.30%	84.30%	84.30%	84.30%	84.30%
First Year Prior		10.25%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Second Year Prior		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
AMI Revenue Adjustment								
Current Year	TRUE	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		454,664	451,689	449,138	446,209	443,733	441,673	439,609
Prior to Adjustment		454,664	451,689	449,138	446,209	443,315	440,423	437,530
Impact		0	0	0	0	417	1,250	2,079
Water - General Service Override		211,482						
Sewer - General Service Override		292,145						
Effective Months		6	12	12	12	12	12	12
Water Revenue Increase		0.00%	0.00%	5.00%	5.00%	4.00%	4.00%	5.50%
Wastewater Revenue Increase		0.00%	0.00%	5.70%	5.70%	5.20%	5.20%	5.60%
Offset Rate Compression		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
Revenue Increase Compression Factor								
July	96.60%	0.00%	96.60%	96.60%	96.60%	96.60%	96.60%	96.60%
Aug	96.50%	0.00%	96.50%	96.50%	96.50%	96.50%	96.50%	96.50%
Sep	96.35%	0.00%	96.35%	96.35%	96.35%	96.35%	96.35%	96.35%
Oct	96.10%	0.00%	96.10%	96.10%	96.10%	96.10%	96.10%	96.10%
Nov	95.69%	0.00%	95.69%	95.69%	95.69%	95.69%	95.69%	95.69%
Dec	95.05%	0.00%	95.05%	95.05%	95.05%	95.05%	95.05%	95.05%
Jan	94.15%	94.15%	94.15%	94.15%	94.15%	94.15%	94.15%	94.15%
Feb	93.03%	93.03%	93.03%	93.03%	93.03%	93.03%	93.03%	93.03%
Mar	91.21%	91.21%	91.21%	91.21%	91.21%	91.21%	91.21%	91.21%
Apr	86.90%	86.90%	86.90%	86.90%	86.90%	86.90%	86.90%	86.90%
May	72.46%	72.46%	72.46%	72.46%	72.46%	72.46%	72.46%	72.46%
Jun	30.56%	30.56%	30.56%	30.56%	30.56%	30.56%	30.56%	30.56%

Water Effective Increase							
July	0.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Aug	0.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Sep	0.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Oct	0.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Nov	0.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Dec	0.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Jan	100.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Feb	100.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Mar	100.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Apr	100.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
May	100.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Jun	100.00%	100.00%	105.00%	105.00%	104.00%	104.00%	105.50%
Water Compression Factor	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Wastewater Effective Increase							
July	0.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Aug	0.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Sep	0.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Oct	0.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Nov	0.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Dec	0.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Jan	100.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Feb	100.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Mar	100.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Apr	100.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
May	100.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Jun	100.00%	100.00%	105.70%	105.70%	105.20%	105.20%	105.60%
Wastewater Compression Factor	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Sewer Only - Billed Volume (Mcf)							Assumptions - 11
	2015	2016	2017	2018	2019	2020	2021
Municipal	247,108	232,000	232,000	232,000	232,000	232,000	232,000
Fire	2,627	2,800	2,800	2,800	2,800	2,800	2,800
Sewer Only	42,663	42,663	42,663	42,663	42,663	42,663	42,663
Groundwater (Non-City)	248,776	190,000	190,000	190,000	190,000	190,000	190,000
City Groundwater	0	0	0	0	0	0	0

Water Wholesale							Assumptions - 12
	2015	2016	2017	2018	2019	2020	2021
Bucks County							
Commodity Charge ($/Mcf)	1.218	1.708	1.708	1.708	1.708	1.708	1.708
Demand Charge ($/mgd of maximum demand)	109,095	135,048	135,048	135,048	135,048	135,048	135,048
Lump Sum Payment ($/year)	-	-	-	-	-	-	-
Usage (Mcf)	-	-	-	-	-	-	-
Max Demand (mgd)	-	-	-	-	-	-	-
Management Fee	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	0.00%
Aqua PA							
Commodity Charge ($/Mcf)	2.969	2.969	2.969	2.969	2.969	2.969	2.969
Lump Sum Payment ($/year)	3,030,000	3,030,000	3,030,000	3,030,000	3,030,000	3,030,000	3,030,000
Usage (Mcf)	129,410	110,000	110,000	110,000	110,000	110,000	110,000
Management Fee	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Surcharge							Assumptions - 13
	2015	2016	2017	2018	2019	2020	2021
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	0.350	0.350	0.350	0.350	0.350	0.350
SS	0.332	0.332	0.332	0.332	0.332	0.332	0.332
Actual							

Sewer Wholesale							Assumptions - 14
	2015	2016	2017	2018	2019	2020	2021
Abington							
Rates							
Volume ($/Mcf)	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)	186.3307	186	186	186	186	186	186
BOD ($/1,000 lbs.)	201.1057	201	201	201	201	201	201
Annual Lump Sum ($)	503,000	527,000	527,000	527,000	527,000	527,000	527,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	100,091	100,000	100,000	100,000	100,000	100,000	100,000
Capacity (cfs)	9.247	9.247	9.247	9.247	9.247	9.247	9.247
SS (1,000 lbs.)	1,068	1,100	1,100	1,100	1,100	1,100	1,100
BOD (1,000 lbs.)	1,295	1,100	1,100	1,100	1,100	1,100	1,100
Bensalem							
Rates							
Volume ($/Mcf)	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)	186.3307	186	186	186	186	186	186
BOD ($/1,000 lbs.)	201.1057	201	201	201	201	201	201
Annual Lump Sum ($)	93,000	93,000	93,000	93,000	93,000	93,000	93,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	171,935	175,000	175,000	175,000	175,000	175,000	175,000
Capacity (cfs)	11.740	11.740	11.740	11.740	12	12	12
SS (1,000 lbs.)	2,189	2,240	2,240	2,240	2,240	2,240	2,240
BOD (1,000 lbs.)	2,697	2,480	2,480	2,480	2,480	2,480	2,480

Bucks County							
Rates							
Volume ($/Mcf)	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)	186.3307	186	186	186	186	186	186
BOD ($/1,000 lbs.)	201.1057	201	201	201	201	201	201
Annual Lump Sum ($)	185,000	185,000	185,000	185,000	185,000	185,000	185,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	846,849	870,000	870,000	870,000	870,000	870,000	870,000
Capacity (cfs)	85.080	85	85	85	85	85	85
SS (1,000 lbs.)	11,614	9,700	9,700	9,700	9,700	9,700	9,700
BOD (1,000 lbs.)	10,732	9,600	9,600	9,600	9,600	9,600	9,600
Cheltenham							
Rates							
Volume ($/Mcf)	1.4478	1.4478	1.4478	1.4478	1.4478	1.4478	1.4478
Capacity ($/cfs)	4,993	4,993	4,993	4,993	4,993	4,993	4,993
SS ($/1,000 lbs.)	186.3307	186	186	186	186	186	186
BOD ($/1,000 lbs.)	201.1057	201	201	201	201	201	201
Annual Lump Sum ($)	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	356,825	350,000	350,000	350,000	350,000	350,000	350,000
Capacity (cfs)	20.750	21	21	21	21	21	21
SS (1,000 lbs.)	3,135	3,100	3,100	3,100	3,100	3,100	3,100
BOD (1,000 lbs.)	2,726	2,700	2,700	2,700	2,700	2,700	2,700
Lower Moreland							
Rates							
Volume ($/Mcf)	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)	186.3307	186.3307	186.3307	186.3307	186	186	186
BOD ($/1,000 lbs.)	201.1057	201.1057	201.1057	201.1057	201	201	201
Annual Lump Sum ($)	286,000	301,000	301,000	301,000	301,000	301,000	301,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%

Billing Units							
Volume (Mcf)	57,771	58,200	58,200	58,200	58,200	58,200	58,200
Capacity (cfs)	5.941	6	6	6	6	6	6
SS (1,000 lbs.)	593	600	600	600	600	600	600
BOD (1,000 lbs.)	447	450	450	450	450	450	450
Lower Southampton							
Rates							
Volume ($/Mcf)	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)	186.3307	186.3307	186.3307	186.3307	186	186	186
BOD ($/1,000 lbs.)	201.1057	201.1057	201.1057	201.1057	201	201	201
Annual Lump Sum ($)	1,357,000	1,397,000	1,397,000	1,397,000	1,397,000	1,397,000	1,397,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	255,403	270,000	270,000	270,000	270,000	270,000	270,000
Capacity (cfs)	15.790	16	16	16	16	16	16
SS (1,000 lbs.)	2,427	2,700	2,700	2,700	2,700	2,700	2,700
BOD (1,000 lbs.)	2,139	2,100	2,100	2,100	2,100	2,100	2,100
DELCORA							
Rates							
Volume ($/Mcf)	1.2626	1.2626	1.2626	1.2626	1.2626	1.2626	1.2626
Capacity ($/cfs)	5,365	5,365	5,365	5,365	5,365	5,365	5,365
SS ($/1,000 lbs.)	179.7959	180	180	180	180	180	180
BOD ($/1,000 lbs.)	199.1219	199	199	199	199	199	199
Annual Lump Sum ($)	43,000	437,000	437,000	437,000	437,000	437,000	437,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	1,110,372	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Capacity (cfs)	155.000	155	155	155	155	155	155
SS (1,000 lbs.)	12,729	13,100	13,100	13,100	13,100	13,100	13,100
BOD (1,000 lbs.)	11,305	11,100	11,100	11,100	11,100	11,100	11,100

Lower Merion							
Rates							
Volume ($/Mcf)	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026
Capacity ($/cfs)	5,487	5,487	5,487	5,487	5,487	5,487	5,487
SS ($/1,000 lbs.)	182.9871	182.9871	182.9871	182.9871	183	183	183
BOD ($/1,000 lbs.)	200.1492	200.1492	200.1492	200.1492	200	200	200
Annual Lump Sum ($)	126,000	126,000	126,000	126,000	126,000	126,000	126,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units							
Volume (Mcf)	357,220	360,000	360,000	360,000	360,000	360,000	360,000
Capacity (cfs)	31.570	32	32	32	32	32	32
SS (1,000 lbs.)	3,718	3,700	3,700	3,700	3,700	3,700	3,700
BOD (1,000 lbs.)	3,208	3,200	3,200	3,200	3,200	3,200	3,200
Springfield (less Wyndmoor)							
Rates							
Volume ($/Mcf)	1.6272	1.6272	1.6272	1.6272	1.6272	1.6272	1.6272
Capacity ($/cfs)	11,135	11,135	11,135	11,135	11,135	11,135	11,135
SS ($/1,000 lbs.)	182.9871	182.9871	182.9871	182.9871	183	183	183
BOD ($/1,000 lbs.)	200.1492	200.1492	200.1492	200.1492	200	200	200
Annual Lump Sum ($)	389,000	389,000	389,000	389,000	389,000	389,000	389,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	142,622	160,000	160,000	160,000	160,000	160,000	160,000
Capacity (cfs)	4.600	4.600	4.600	4.600	5	5	5
SS (1,000 lbs.)	1,845	1,700	1,700	1,700	1,700	1,700	1,700
BOD (1,000 lbs.)	1,598	1,800	1,800	1,800	1,800	1,800	1,800
Upper Darby							
Rates							
Volume ($/Mcf)	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026
Capacity ($/cfs)	5,487	5,487	5,487	5,487	5,487	5,487	5,487
SS ($/1,000 lbs.)	182.9871	182.9871	182.9871	182.9871	183	183	183
BOD ($/1,000 lbs.)	200.1492	200.1492	200.1492	200.1492	200	200	200
Annual Lump Sum ($)	43,000	43,000	43,000	43,000	43,000	43,000	43,000
Management Fee (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Billing Units							
Volume (Mcf)	463,520	470,000	470,000	470,000	470,000	470,000	470,000
Capacity (cfs)	35.000	35.000	35.000	35.000	35	35	35
SS (1,000 lbs.)	4,511	4,600	4,600	4,600	4,600	4,600	4,600
BOD (1,000 lbs.)	3,846	4,000	4,000	4,000	4,000	4,000	4,000
Springfield (Wyndmoor)							
Rates							
Volume ($/Mcf)	1.9608	1.9608	1.9608	1.9608	1.9608	1.9608	1.9608
Capacity ($/cfs)	12,951	12,951	12,951	12,951	12,951	12,951	12,951
SS ($/1,000 lbs.)	261.4507	261.4507	261.4507	261.4507	261	261	261
BOD ($/1,000 lbs.)	133.4719	133.4719	133.4719	133.4719	133	133	133
Annual Lump Sum ($)	138,000	138,000	138,000	138,000	138,000	138,000	138,000
Management Fee (%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units							
Volume (Mcf)	18,388	19,000	19,000	19,000	19,000	19,000	19,000
Capacity (cfs)	1.930	1.930	1.930	1.930	2	2	2
SS (1,000 lbs.)	160	130	130	130	130	130	130
BOD (1,000 lbs.)	122	100	100	100	100	100	100

O&M Escalation Factors							Assumptions - 15
	2015	2016	2017	2018	2019	2020	2021
Constant	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Labor	1.00%	2.50%	3.00%	3.00%	3.00%	3.00%	3.00%
Other Benefits	-5.20%	4.62%	4.45%	4.59%	6.94%	4.03%	5.00%
Pension			2.42%	1.66%	1.84%	1.43%	3.00%
Pension Obligations			0.00%	0.00%	0.00%	0.00%	0.00%
General	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Property Leases	3.00%	3.00%	-0.93%	4.76%	1.91%	1.92%	2.00%
Other 200	3.00%	3.00%	3.50%	3.50%	3.50%	3.50%	3.50%
Other 300	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Other 400	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Energy	5.00%	5.00%	0.00%	2.50%	2.50%	2.50%	2.50%
Chemicals	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%
Other	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

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

		Choose Discount	0
	0-Existing	1-Alternative	Use
Type of Discount	% of Discount	% of Discount	% 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 sized provided for Drop Down Lists

Capital Account Deposit								Assumptions - 21
		2015	2016	2017	2018	2019	2020	2021
		Base Year	Test Year	Calculation	Calculation	Calculation	Calculation	Calculation
Water System Net Plant Investment	41.06%	849,818,820	871,087,900	892,865,098	915,186,725	938,066,393	961,518,053	985,556,004
Wastewater System Net Plant Investment	58.94%	1,219,881,180	1,250,412,100	1,281,672,403	1,313,714,213	1,346,557,068	1,380,220,995	1,414,726,519
Total System Net Plant Investment		2,069,700,000	2,121,500,000	2,174,537,500	2,228,900,938	2,284,623,461	2,341,739,047	2,400,282,524
Estimated Increase in System Net Value	2.50%							
Capital Account Deposit %	1.00%							

Direct O&M Actual to Budget Factors

Assumptions - 22A

			Historical Averages			Actual to Budget Factor				
		Use	1 Year	3 Year	5 Year	2015	2014	2013	2012	2011
PWD Direct O&M		3 year average								
Human Resources and Administration										
Salaries & Wages	100	100.00%	98.04%	95.07%	92.70%	98.04%	97.33%	89.45%	87.49%	90.28%
Services	200	75.98%	78.04%	75.98%	73.75%	78.04%	79.36%	67.30%	67.42%	72.28%
Materials and Supplies	300	69.40%	59.66%	69.40%	68.31%	59.66%	82.01%	72.05%	60.95%	71.60%
Equipment	400	108.90%	98.33%	108.90%	86.58%	98.33%	171.52%	94.67%	77.82%	15.74%
Contributions	500	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			87.38%	86.75%	84.52%	87.38%	90.40%	81.82%	78.67%	82.92%
Finance										
Salaries & Wages	100	100.00%	87.78%	82.47%	81.19%	87.78%	84.77%	73.40%	86.63%	72.24%
Services	200	51.62%	65.70%	51.62%	70.92%	65.70%	58.28%	40.51%	127.14%	82.48%
SMIP/GARP	2xx	100.00%	113.15%	104.46%	103.48%	113.15%	96.54%	95.18%	99.50%	
Materials and Supplies	300	25.78%	5.28%	25.78%	50.99%	5.28%	15.26%	47.53%	79.57%	94.26%
Equipment	400	64.79%	0.00%	64.79%	68.09%	0.00%	92.95%	40.08%	87.97%	35.25%
Contributions	500	100.00%								
Transfers	800	62.12%	44.60%	62.12%	67.69%	44.60%	58.25%	85.62%	82.88%	72.95%
Subtotal Finance			72.04%	68.56%	75.33%	72.04%	66.44%	66.90%	98.57%	77.70%
Planning and Engineering										
Salaries & Wages	100	100.00%	97.38%	88.82%	90.81%	97.38%	82.27%	86.98%	85.86%	100.00%
Services	200	39.95%	60.29%	39.95%	53.88%	60.29%	31.24%	32.20%	53.19%	100.00%
Materials and Supplies	300	76.27%	51.55%	76.27%	83.22%	51.55%	59.36%	129.57%	91.26%	100.00%
Equipment	400	18.54%	24.77%	18.54%	47.14%	24.77%	12.48%	27.20%	35.99%	100.00%
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Planning and Engineering			81.42%	70.21%	77.83%	81.42%	61.55%	68.64%	75.87%	100.00%
Operations										
Salaries & Wages	100	100.00%	100.61%	95.21%	93.10%	100.61%	94.76%	90.17%	88.77%	91.04%
Services	200	88.35%	87.21%	88.35%	89.78%	87.21%	84.94%	93.44%	93.70%	90.97%
Power	220	80.71%	79.44%	80.71%	87.40%	79.44%	79.42%	83.02%	91.57%	103.98%
Materials and Supplies	300	87.49%	82.35%	87.49%	88.19%	82.35%	84.83%	95.48%	95.84%	82.45%
Chemicals	307	98.20%	94.32%	98.20%	93.18%	94.32%	104.31%	96.03%	89.94%	81.36%
Equipment	400	66.58%	77.30%	66.58%	62.64%	77.30%	59.18%	65.12%	66.72%	41.35%
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Operations			91.25%	90.59%	90.67%	91.25%	89.52%	91.02%	91.05%	90.54%

		Use	Historical Averages 1 Year	3 Year	5 Year	Actual to Budget Factor 2015	2014	2013	2012	2011
Planning & Environmental Services										
Salaries & Wages	100	100.00%	96.55%	99.12%	97.06%	96.55%	101.25%	99.99%	97.97%	88.82%
Services	200	95.08%	100.06%	95.08%	93.72%	100.06%	90.22%	94.19%	90.85%	91.82%
Materials and Supplies	300	73.84%	73.34%	73.84%	72.55%	73.34%	86.13%	63.69%	74.09%	67.31%
Equipment	400	50.63%	32.20%	50.63%	35.34%	32.20%	62.82%	50.59%	7.13%	29.04%
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Planning & Environmental Services			96.81%	94.56%	91.96%	96.81%	93.05%	93.50%	90.15%	84.88%
Public Affairs										
Salaries & Wages	100	100.00%	95.96%	93.76%	91.96%	95.96%	93.21%	91.69%	95.77%	82.04%
Services	200	90.51%	91.83%	90.51%	95.25%	91.83%	93.27%	86.21%	116.81%	105.76%
Materials and Supplies	300	51.09%	41.94%	51.09%	56.49%	41.94%	45.19%	68.57%	64.38%	66.14%
Equipment	400	70.16%	88.75%	70.16%	54.30%	88.75%	7.32%	114.41%	21.50%	27.21%
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Public Affairs			91.22%	89.94%	92.81%	91.22%	91.44%	86.93%	106.77%	93.63%
Water System Operating and Maintenance Expenses Summary										
Salaries & Wages	100		99.38%	95.24%	93.19%	99.38%	95.29%	90.83%	89.69%	90.27%
Services	200		88.17%	85.71%	88.19%	88.17%	84.14%	84.71%	95.50%	89.88%
Power	220		79.44%	80.71%	87.40%	79.44%	79.42%	83.02%	91.57%	103.98%
Materials and Supplies	300		77.94%	83.10%	84.45%	77.94%	81.10%	90.44%	91.84%	81.18%
Chemicals	307		94.32%	98.20%	93.18%	94.32%	104.31%	96.03%	89.94%	81.36%
Equipment	400		69.33%	62.89%	55.25%	69.33%	64.60%	55.62%	57.04%	36.50%
Contributions	500		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transfers	800		44.60%	62.12%	67.69%	44.60%	58.25%	85.62%	82.88%	72.95%
Total Water System Operating and Maintenance Expenses Summary			88.66%	87.85%	88.60%	88.66%	87.31%	87.58%	91.22%	88.43%
Human Resources & Admin and Finance										
Salaries & Wages	100	100.00%	95.76%	92.36%	90.33%	95.76%	94.60%	86.14%	87.34%	86.59%
Services	200	59.23%	71.18%	59.23%	71.74%	71.18%	65.77%	45.31%	106.00%	80.74%
Materials and Supplies	300	50.87%	45.30%	50.87%	60.59%	45.30%	47.69%	59.74%	70.10%	82.13%
Equipment	400	78.81%	95.86%	78.81%	73.56%	95.86%	102.98%	44.13%	86.02%	27.64%
Contributions	500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Transfers	800	62.12%	44.60%	62.12%	67.69%	44.60%	58.25%	85.62%	82.88%	72.95%
Subtotal Human Resources & Admin and Finance			67.79%	68.58%	74.65%	67.79%	70.57%	67.58%	91.03%	79.27%

Direct O&M Actual to Budget Factors — Assumptions - 22B

		Actual					Budget				
		2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
PWD Direct O&M											
Human Resources and Administration											
Salaries & Wages	100	$ 8,502,816	$ 7,650,763	$ 6,911,366	$ 6,591,224	$ 6,782,159	$ 8,673,039	$ 7,860,450	$ 7,726,550	$ 7,533,950	$ 7,512,500
Services	200	4,562,319	3,277,947	2,019,108	2,676,000	1,856,758	5,846,000	4,130,600	2,999,990	3,969,095	2,568,800
Materials and Supplies	300	725,233	632,835	575,822	474,539	579,242	1,215,550	771,700	799,164	778,565	809,000
Equipment	400	413,078	140,816	46,389	111,049	24,547	420,100	82,100	49,000	142,700	156,000
Contributions	500	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000
Transfers	800	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration		$ 14,203,446	$ 11,702,361	$ 9,552,685	$ 9,852,812	$ 9,242,706	$ 16,254,689	$ 12,944,850	$ 11,674,704	$ 12,524,310	$ 11,146,300
Finance											
Salaries & Wages	100	$ 2,170,853	$ 1,849,144	$ 1,472,571	$ 1,388,706	$ 1,393,850	$ 2,472,925	$ 2,181,400	$ 2,006,100	$ 1,602,950	$ 1,929,500
Services	200	$ 4,811,153	$ 4,366,100	$ 5,577,954	$ 9,206,767	$ 10,311,521	$ 7,322,500	$ 7,491,000	$ 13,768,110	$ 7,241,405	$ 12,501,800
SMIP/GARP	2xx	$ 11,598,134	$ 5,020,143	$ 4,925,776	$ 5,025,000	$ -	$ 10,250,000	$ 5,200,000	$ 5,175,000	$ 5,050,000	$ -
Materials and Supplies	300	$ 23,023	$ 124,596	$ 383,299	$ 598,960	$ 661,729	$ 436,200	$ 816,400	$ 806,436	$ 752,735	$ 702,000
Equipment	400	$ -	$ 521,252	$ 244,778	$ 527,642	$ 86,002	$ 10,800	$ 560,800	$ 610,800	$ 599,800	$ 244,000
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ 6,244,621	$ 7,714,419	$ 10,792,914	$ 9,074,729	$ 7,754,262	$ 14,000,000	$ 13,243,100	$ 12,605,000	$ 10,948,900	$ 10,630,000
Subtotal Finance		$ 24,847,784	$ 19,595,654	$ 23,397,293	$ 25,821,804	$ 20,207,364	$ 34,492,425	$ 29,492,700	$ 34,971,446	$ 26,195,790	$ 26,007,300
Planning and Engineering											
Salaries & Wages	100	$ 1,199,514	$ 1,043,846	$ 1,057,108	$ 1,028,722	$ 1,449,595	$ 1,231,738	$ 1,268,860	$ 1,215,300	$ 1,198,100	$ 1,449,595
Services	200	$ 297,188	$ 155,719	$ 235,838	$ 259,551	$ 528,000	$ 492,900	$ 498,500	$ 732,500	$ 488,000	$ 528,000
Materials and Supplies	300	$ 102,067	$ 105,252	$ 191,888	$ 133,233	$ 147,000	$ 198,000	$ 177,300	$ 148,100	$ 146,000	$ 147,000
Equipment	400	$ 14,614	$ 27,449	$ 30,333	$ 28,435	$ 228,000	$ 59,000	$ 220,000	$ 111,500	$ 79,000	$ 228,000
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Planning and Engineering		$ 1,613,383	$ 1,332,266	$ 1,515,167	$ 1,449,941	$ 2,352,595	$ 1,981,638	$ 2,164,660	$ 2,207,400	$ 1,911,100	$ 2,352,595
Operations											
Salaries & Wages	100	$ 71,789,745	$ 65,710,338	$ 63,390,240	$ 62,092,417	$ 62,637,659	$ 71,357,193	$ 69,343,900	$ 70,297,400	$ 69,949,000	$ 68,805,000
Services	200	$ 55,277,653	$ 55,165,835	$ 53,779,374	$ 49,900,039	$ 44,989,464	$ 63,381,100	$ 64,948,600	$ 57,556,100	$ 53,255,000	$ 49,453,000
Power	220	$ 20,427,534	$ 21,440,579	$ 24,375,674	$ 24,841,360	$ 27,311,199	$ 25,714,000	$ 26,994,900	$ 29,362,900	$ 27,128,000	$ 26,266,000
Materials and Supplies	300	$ 14,703,881	$ 14,625,464	$ 16,475,057	$ 15,651,859	$ 12,662,984	$ 17,855,400	$ 17,240,200	$ 17,255,800	$ 16,332,000	$ 15,358,000
Chemicals	307	$ 22,324,969	$ 24,446,114	$ 22,602,203	$ 20,239,205	$ 19,400,817	$ 23,668,950	$ 23,435,500	$ 23,537,400	$ 22,502,000	$ 23,845,000
Equipment	400	$ 1,219,613	$ 1,172,215	$ 994,870	$ 1,356,406	$ 549,906	$ 1,577,800	$ 1,980,700	$ 1,527,800	$ 2,033,000	$ 1,330,000
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Operations		$ 185,743,395	$ 182,560,545	$ 181,617,418	$ 174,081,286	$ 167,552,029	$ 203,554,443	$ 203,943,800	$ 199,537,400	$ 191,199,000	$ 185,057,000

		Actual					Budget				
		2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Planning & Environmental Services											
Salaries & Wages	100	$ 12,135,854	$ 11,080,774	$ 10,315,992	$ 9,163,710	$ 8,437,905	$ 12,569,537	$ 10,944,400	$ 10,316,700	$ 9,353,800	$ 9,500,405
Services	200	$ 22,388,075	$ 17,411,374	$ 18,442,417	$ 16,447,254	$ 15,276,152	$ 22,374,200	$ 19,299,800	$ 19,579,700	$ 18,102,800	$ 16,637,700
Materials and Supplies	300	$ 989,788	$ 1,015,983	$ 867,520	$ 962,010	$ 903,646	$ 1,349,600	$ 1,179,600	$ 1,362,100	$ 1,298,500	$ 1,342,500
Equipment	400	$ 187,954	$ 556,793	$ 470,735	$ 55,839	$ 672,252	$ 583,650	$ 886,400	$ 930,500	$ 783,400	$ 2,315,160
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Planning & Environmental Services		$ 35,701,671	$ 30,064,924	$ 30,096,664	$ 26,628,813	$ 25,289,955	$ 36,876,987	$ 32,310,200	$ 32,189,000	$ 29,538,500	$ 29,795,765
Public Affairs											
Salaries & Wages	100	$ 2,644,067	$ 2,260,265	$ 2,110,697	$ 2,110,095	$ 1,803,302	$ 2,755,277	$ 2,424,900	$ 2,301,900	$ 2,203,200	$ 2,198,000
Services	200	$ 8,001,034	$ 7,244,654	$ 6,591,039	$ 4,525,982	$ 3,091,251	$ 8,712,700	$ 7,767,700	$ 7,645,200	$ 3,874,500	$ 2,923,000
Materials and Supplies	300	$ 156,358	$ 168,011	$ 219,959	$ 206,542	$ 221,111	$ 372,800	$ 371,800	$ 320,800	$ 320,800	$ 334,300
Equipment	400	$ 13,757	$ 1,134	$ 17,734	$ 2,688	$ 3,293	$ 15,500	$ 15,500	$ 15,500	$ 12,500	$ 12,100
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Public Affairs		$ 10,815,216	$ 9,674,064	$ 8,939,429	$ 6,845,307	$ 5,118,957	$ 11,856,277	$ 10,579,900	$ 10,283,400	$ 6,411,000	$ 5,467,400
Water System Operating and Maintenance Expenses Summary											
Salaries & Wages	100	$ 98,442,849	$ 89,595,130	$ 85,257,975	$ 82,374,874	$ 82,504,470	$ 99,059,709	$ 94,023,910	$ 93,863,950	$ 91,841,000	$ 91,395,000
Services	200	95,337,422	87,621,629	86,645,730	83,015,593	76,053,146	108,129,400	104,136,200	102,281,600	86,930,800	84,612,300
Power	220	20,427,534	21,440,579	24,375,674	24,841,360	27,311,199	25,714,000	26,994,900	29,362,900	27,128,000	26,266,000
Materials and Supplies	300	16,700,350	16,672,141	18,713,545	18,027,143	15,175,712	21,427,550	20,557,000	20,692,400	19,628,600	18,692,800
Chemicals	307	22,324,969	24,446,114	22,602,203	20,239,205	19,400,817	23,668,950	23,435,500	23,537,400	22,502,000	23,845,000
Equipment	400	1,849,016	2,419,659	1,804,839	2,082,059	1,564,000	2,666,850	3,745,500	3,245,100	3,650,400	4,285,260
Contributions	500	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000
Transfers	800	6,244,621	7,714,419	10,792,914	9,074,729	7,754,262	14,000,000	13,243,100	12,605,000	10,948,900	10,630,000
Total Water System Operating and Maintenance Expenses Sun		**$ 261,326,761**	**$ 249,909,671**	**$ 250,192,879**	**$ 239,654,963**	**$ 229,763,606**	**$ 294,766,459**	**$ 286,236,110**	**$ 285,688,350**	**$ 262,729,700**	**$ 259,826,360**
Human Resources & Admin and Finance											
Salaries & Wages	100	$ 10,673,669	$ 9,499,907	$ 8,383,937	$ 7,979,930	$ 8,176,009	$ 11,145,964	$ 10,041,850	$ 9,732,650	$ 9,136,900	$ 9,442,000
Services	200	9,373,472	7,644,047	7,597,062	11,882,767	12,168,279	13,168,500	11,621,600	16,768,100	11,210,500	15,070,600
Materials and Supplies	300	748,256	757,431	959,121	1,073,499	1,240,971	1,651,750	1,588,100	1,605,600	1,531,300	1,511,000
Equipment	400	413,078	662,068	291,167	638,691	110,549	430,900	642,900	659,800	742,500	400,000
Contributions	500	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000
Transfers	800	6,244,621	7,714,419	10,792,914	9,074,729	7,754,262	14,000,000	13,243,100	12,605,000	10,948,900	10,630,000
Subtotal Human Resources & Admin and Finance		$ 27,453,096	$ 26,277,872	$ 28,024,202	$ 30,649,616	$ 29,450,070	$ 40,497,114	$ 37,237,550	$ 41,471,150	$ 33,670,100	$ 37,153,600

Direct O&M - Water and Sewer Allocation

Assumptions - 23

		2016 Budget Detail		Allocation		
				Water	Wastewater	Stormwater
PWD Direct O&M						
Human Resources and Administration						
Class 100 - xxxxxxxxxx		0	0.00%	31.00%	69.00%	0.00%
Class 100 - All Other		8,815,500	100.00%	31.00%	69.00%	0.00%
Class 100 - Total	100	8,815,500	100.00%	31.00%	69.00%	0.00%
Class 200 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 200 - All Other		5,222,100	100.00%	31.00%	69.00%	0.00%
Class 200 - Total	200	5,222,100	100.00%	31.00%	69.00%	0.00%
Class 300 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 300 - All Other		1,141,850	100.00%	31.00%	69.00%	0.00%
Class 300 - Total	300	1,141,850	100.00%	31.00%	69.00%	0.00%
Class 400 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 400 - All Other		634,600	100.00%	31.00%	69.00%	0.00%
Class 400 - Total	400	634,600	100.00%	31.00%	69.00%	0.00%
Class 500 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 500 - All Other		100,000	100.00%	31.00%	69.00%	0.00%
Class 500 - Total	500	100,000	100.00%	31.00%	69.00%	0.00%
Class 800 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 800 - All Other		0	100.00%	31.00%	69.00%	0.00%
Class 800 - Total	800	0	100.00%	31.00%	69.00%	0.00%
Subtotal Human Resources and Administration		15,914,050				

	2016 Budget Detail		Allocation		
			Water	Wastewater	Stormwater
Finance					
Class 100 - xxxxxxxxxx	0	0.00%	0.00%	0.00%	100.00%
Class 100 - All Other	2,550,200	100.00%	38.00%	62.00%	0.00%
Class 100 - Total	2,550,200	100.00%	38.00%	62.00%	0.00%
Stormwater Program - Residential	0	0.00%	0.00%	0.00%	100.00%
Stormwater Program - Non-Residential		0.00%	0.00%	0.00%	100.00%
Class 200 - Wastewater Collection Mains	0	0.00%	0.00%	100.00%	0.00%
Class 200 - Green Initiatives (LTCP)	0	0.00%	0.00%	50.00%	50.00%
Class 200 - Customer (Grants)	0	0.00%	44.00%	35.00%	21.00%
Class 200 - Customer (Basis2)	0	0.00%	33.40%	33.30%	33.30%
Class 200 - All Other	7,297,500	100.00%	38.00%	62.00%	0.00%
Class 200 - Total	7,297,500	100.00%	38.00%	62.00%	0.00%
Class 2xx - Wastewater Collection Mains	11,450,000	100.00%	0.00%	100.00%	0.00%
Class 2xx - All Other	0	0.00%	0.00%	100.00%	0.00%
Class 2xx - Total	11,450,000	100.00%	0.00%	100.00%	0.00%
Class 300 - xxxxxxxxxx	0	0.00%	0.00%	0.00%	100.00%
Class 300 - All Other	86,200	100.00%	38.00%	62.00%	0.00%
Class 300 - Total	86,200	100.00%	38.00%	62.00%	0.00%
Class 400 - xxxxxxxxxx	0	0.00%	0.00%	0.00%	100.00%
Class 400 - All Other	37,800	100.00%	38.00%	62.00%	0.00%
Class 400 - Total	37,800	100.00%	38.00%	62.00%	0.00%
Class 500 - xxxxxxxxxx	0	0.00%	0.00%	0.00%	100.00%
Class 500 - All Other	0	100.00%	38.00%	62.00%	0.00%
Class 500 - Total	0	100.00%	38.00%	62.00%	0.00%
Class 800 - xxxxxxxxxx	0	0.00%	0.00%	0.00%	100.00%
Class 800 - All Other	10,537,000	100.00%	36.00%	64.00%	0.00%
Class 800 - Total	10,537,000	100.00%	36.00%	64.00%	0.00%
Subtotal Finance	31,958,700				

		2016 Budget Detail		Allocation Water	Allocation Wastewater	Allocation Stormwater
Planning and Engineering						
Class 100 - Office of Watersheds		0	0.00%	15.00%	85.00%	0.00%
Class 100 - BLS		0	0.00%	40.00%	60.00%	0.00%
Class 100 - All Other (Plant Investment)		1,225,000	100.00%	40.00%	60.00%	0.00%
Class 100 - Total	100	1,225,000	100.00%	40.00%	60.00%	0.00%
Class 200 - Res Stormwater Program		0	0.00%	0.00%	0.00%	100.00%
Class 200 - Non-Res Stormwater Program		0	0.00%	0.00%	0.00%	100.00%
Class 200 - Wastewater Collection Mains		0	0.00%	-100.00%	100.00%	100.00%
Class 251 - CSO Compliance Program		0	0.00%	-100.00%	100.00%	100.00%
Class 200 - Office of Watersheds		0	0.00%	40.00%	60.00%	0.00%
Class 200 - BLS		0	0.00%	40.00%	60.00%	0.00%
Class 200 - All Other (Plant Investment)		497,500	100.00%	40.00%	60.00%	0.00%
Class 200 - Total	200	497,500	100.00%	40.00%	60.00%	0.00%
Class 300 - Office of Watersheds		0	0.00%	0.00%	0.00%	100.00%
Class 300 - BLS		0	0.00%	40.00%	60.00%	0.00%
Class 300 - All Other (Plant Investment)		187,500	100.00%	40.00%	60.00%	0.00%
Class 300 - Total	300	187,500	100.00%	40.00%	60.00%	0.00%
Class 400 - Office of Watersheds		0	0.00%	0.00%	0.00%	100.00%
Class 400 - BLS		0	0.00%	40.00%	60.00%	0.00%
Class 400 - All Other (Plant Investment)		59,000	100.00%	40.00%	60.00%	0.00%
Class 400 - Total	400	59,000	100.00%	40.00%	60.00%	0.00%
Class 500 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 500 - All Other		0	100.00%	40.00%	60.00%	0.00%
Class 500 - Total	500	0	100.00%	40.00%	60.00%	0.00%
Class 800 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 800 - All Other		0	100.00%	40.00%	60.00%	0.00%
Class 800 - Total	800	0	100.00%	40.00%	60.00%	0.00%
Subtotal Planning and Engineering		1,969,000				

		2016 Budget Detail	Allocation		
			Water	Wastewater	Stormwater
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-25 and Direct O&M-10			
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%

		2016 Budget Detail		Allocation Water	Allocation Wastewater	Allocation Stormwater
Planning & Environmental Services						
Class 100 - Office of Watersheds		3,807,569	29.23%	15.00%	85.00%	0.00%
Class 100 - BLS		6,755,949	51.87%	40.00%	60.00%	0.00%
Class 100 - P&R		2,461,182	18.90%	40.00%	60.00%	0.00%
Class 100 - Total	100	13,024,700	100.00%	32.69%	67.31%	0.00%
Class 200 - Res Stormwater Program		0	0.00%	0.00%	0.00%	100.00%
Class 200 - Non-Res Stormwater Program		1,145,000	4.53%	0.00%	0.00%	100.00%
Class 200 - Wastewater Collection Mains		600,000	2.38%	0.00%	100.00%	0.00%
Class 251 - CSO Compliance Program		0	0.00%	0.00%	0.00%	100.00%
Class 200 - All Other - Office of Watersheds		15,090,000	59.75%	40.00%	60.00%	0.00%
Class 200 - All Other - BLS		2,257,700	8.94%	40.00%	60.00%	0.00%
Class 200 - All Other - P&R		6,161,500	24.40%	40.00%	60.00%	0.00%
Class 200 - Total	200	25,254,200	100.00%	37.24%	58.23%	4.53%
Class 300 - Office of Watersheds		0	0.00%	0.00%	0.00%	100.00%
Class 300 - BLS		0	0.00%	40.00%	60.00%	0.00%
Class 300 - P&R		1,408,100	100.00%	40.00%	60.00%	0.00%
Class 300 - Total	300	1,408,100	100.00%	40.00%	60.00%	0.00%
Class 400 - Office of Watersheds		0	0.00%	0.00%	0.00%	100.00%
Class 400 - BLS		0	0.00%	40.00%	60.00%	0.00%
Class 400 - P&R		853,450	100.00%	40.00%	60.00%	0.00%
Class 400 - Total	400	853,450	100.00%	40.00%	60.00%	0.00%
Class 500 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 500 - All Other		0	100.00%	40.00%	60.00%	0.00%
Class 500 - Total	500	0	100.00%	40.00%	60.00%	0.00%
Class 800 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 800 - All Other		0	100.00%	40.00%	60.00%	0.00%
Class 800 - Total	800	0	100.00%	40.00%	60.00%	0.00%
Subtotal Planning & Environmental Services		40,540,450				

		2016 Budget Detail		Allocation		
				Water	Wastewater	Stormwater
Public Affairs						
Class 100 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 100 - All Other		2,831,100	100.00%	50.00%	50.00%	0.00%
Class 100 - Total	100	2,831,100	100.00%	50.00%	50.00%	0.00%
Class 200 - Stormwater Res		0	0.00%	0.00%	0.00%	100.00%
Class 200 - Stormwater Non-Res		0	0.00%	0.00%	0.00%	100.00%
Class 200 - Wastewater Collection Mains		550,000	6.10%	0.00%	100.00%	0.00%
Class 200 - All Other - A&G Volume		3,995,000	44.32%	50.00%	50.00%	0.00%
Class 200 - All Other - A&G Customer		2,830,000	31.40%	50.00%	50.00%	0.00%
Class 200 - All Other - A&G		1,638,200	18.18%	50.00%	50.00%	0.00%
Class 200 - Total	200	9,013,200	100.00%	46.95%	53.05%	0.00%
Class 300 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 300 - All Other		376,300	100.00%	50.00%	50.00%	0.00%
Class 300 - Total	300	376,300	100.00%	50.00%	50.00%	0.00%
Class 400 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 400 - All Other		15,500	100.00%	50.00%	50.00%	0.00%
Class 400 - Total	400	15,500	100.00%	50.00%	50.00%	0.00%
Class 500 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 500 - All Other		0	100.00%	50.00%	50.00%	0.00%
Class 500 - Total	500	0	100.00%	50.00%	50.00%	0.00%
Class 800 - xxxxxxxxxx		0	0.00%	0.00%	0.00%	100.00%
Class 800 - All Other		0	100.00%	50.00%	50.00%	0.00%
Class 800 - Total	800	0	100.00%	50.00%	50.00%	0.00%
Subtotal Public Affairs		12,236,100				

Direct O&M - Water and Sewer Allocation - Operations Class 100					Assumptions - 24
	2016		Allocation		
	Budget Detail		Water	Sanitary	Stormwater
Water Direct Costs					
Baxter Treatment Plant	3,006,109	4.03%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant	2,933,704	3.94%	100.00%	0.00%	0.00%
Belmont Treatment Plant	2,946,796	3.95%	100.00%	0.00%	0.00%
Conveyance Headquarters		0.00%	100.00%	0.00%	0.00%
Load Control	1,690,029	2.27%	100.00%	0.00%	0.00%
Distribution	14,163,159	19.01%	100.00%	0.00%	0.00%
Pumping	2,491,856	3.34%	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	6,463,364	8.67%	0.00%	100.00%	0.00%
SWWPCP	6,531,210	8.76%	0.00%	100.00%	0.00%
SEWPCP	3,617,585	4.85%	0.00%	100.00%	0.00%
Industrial Waste	1,169,123	1.57%	0.00%	100.00%	0.00%
Sewer Maintenance	9,361,864	12.56%	0.00%	100.00%	0.00%
Inlet Cleaning	4,624,570	6.21%	0.00%	100.00%	0.00%
Interceptors/Flow Control	3,973,671	5.33%	0.00%	100.00%	0.00%
Data & Flow Control	0	0.00%	0.00%	100.00%	0.00%
Collector System Support	892,159	1.20%	0.00%	100.00%	0.00%
Allocated Costs					
Treatment Headquarters (50/50)	424,505	0.57%	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)	4,666,927	6.26%	50.00%	50.00%	0.00%
Materials Management (50/50)	1,707,657	2.29%	50.00%	50.00%	0.00%
Customer Service (50/50)	1,391,789	1.87%	50.00%	50.00%	0.00%
Warranty Program		0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)	2,459,023	3.30%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)	0	0.00%	35.00%	65.00%	0.00%
Total	74,515,100	100.00%	43.69%	56.31%	0.00%

Direct O&M - Water and Sewer Allocation - Operations Power Costs **Assumptions - 25**

	2016 Budget Detail		Allocation		
			Water	Wastewater	Stormwater
Water Direct Costs					
Baxter Treatment Plant	125,000	0.45%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant	80,000	0.29%	100.00%	0.00%	0.00%
Belmont Treatment Plant	65,000	0.23%	100.00%	0.00%	0.00%
Conveyance Headquarters		0.00%	100.00%	0.00%	0.00%
Load Control	1,300,000	4.67%	100.00%	0.00%	0.00%
Distribution	0	0.00%	100.00%	0.00%	0.00%
Pumping	0	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	200,000	0.72%	0.00%	100.00%	0.00%
NEWPCP	400,000	1.44%	0.00%	100.00%	0.00%
SWWPCP	725,000	2.60%	0.00%	100.00%	0.00%
SEWPCP	210,000	0.75%	0.00%	100.00%	0.00%
Industrial Waste	0	0.00%	0.00%	100.00%	0.00%
Sewer Maintenance	100,000	0.36%	0.00%	100.00%	0.00%
Inlet Cleaning	0	0.00%	0.00%	100.00%	0.00%
Interceptors/Flow Control	700,000	2.51%	0.00%	100.00%	0.00%
Data & Flow Control	0	0.00%	0.00%	100.00%	0.00%
Collector System Support	0	0.00%	0.00%	100.00%	0.00%
Allocated Costs					
Treatment Headquarters (50/50)	0	0.00%	50.00%	50.00%	0.00%
Machine Shops (50/50)	0	0.00%	50.00%	50.00%	0.00%
Building Maintenance (50/50)	0	0.00%	50.00%	50.00%	0.00%
Security (50/50)	0	0.00%	50.00%	50.00%	0.00%
Operations Admin/Delinquencies/Plumbing. (50/50)	23,940,000	85.98%	50.00%	50.00%	0.00%
Materials Management (50/50)	0	0.00%	50.00%	50.00%	0.00%
Customer Service (50/50)	0	0.00%	50.00%	50.00%	0.00%
Warranty Program		0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)	0	0.00%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)	0	0.00%	35.00%	65.00%	0.00%
Total	27,845,000	100.00%	48.63%	51.37%	0.00%

Direct O&M - Water and Sewer Allocation - Operations Class 200 Excluding Power					Assumptions - 26
	2016		Allocation		
	Budget Detail		Water	Wastewater	Stormwater
Water Direct Costs					
Baxter Treatment Plant	1,421,000	2.18%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant	974,000	1.50%	100.00%	0.00%	0.00%
Belmont Treatment Plant	483,000	0.74%	100.00%	0.00%	0.00%
Conveyance Headquarters		0.00%	100.00%	0.00%	0.00%
Load Control	1,386,000	2.13%	100.00%	0.00%	0.00%
Distribution	1,146,000	1.76%	100.00%	0.00%	0.00%
Pumping	418,000	0.64%	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	0.00%	0.00%	100.00%	0.00%
Biosolids Processing	24,635,000	37.86%	0.00%	100.00%	0.00%
NEWPCP	10,545,000	16.21%	0.00%	100.00%	0.00%
SWWPCP	2,868,000	4.41%	0.00%	100.00%	0.00%
SEWPCP	979,000	1.50%	0.00%	100.00%	0.00%
Industrial Waste	62,000	0.10%	0.00%	100.00%	0.00%
Sewer Maintenance	3,005,300	4.62%	0.00%	100.00%	0.00%
Inlet Cleaning	45,400	0.07%	0.00%	100.00%	0.00%
Interceptors/Flow Control	3,593,000	5.52%	0.00%	100.00%	0.00%
Data & Flow Control	0	0.00%	0.00%	100.00%	0.00%
Collector System Support	8,200	0.01%	0.00%	100.00%	0.00%
Allocated Costs					
Treatment Headquarters (50/50)	263,000	0.40%	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)	7,078,800	10.88%	50.00%	50.00%	0.00%
Materials Management (50/50)	225,000	0.35%	50.00%	50.00%	0.00%
Customer Service (50/50)	3,705,000	5.69%	50.00%	50.00%	0.00%
Warranty Program		0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)	2,225,000	3.42%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)	0	0.00%	35.00%	65.00%	0.00%
Total	65,065,700	100.00%	19.33%	80.67%	0.00%

Direct O&M - Water and Sewer Allocation - Operations Chemical Costs					Assumptions - 27
	2016		Allocation		
	Budget Detail		Water	Wastewater	Stormwater
Water Direct Costs					
Baxter Treatment Plant	9,406,400	41.67%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant	5,306,000	23.50%	100.00%	0.00%	0.00%
Belmont Treatment Plant	4,575,000	20.27%	100.00%	0.00%	0.00%
Conveyance Headquarters		0.00%	100.00%	0.00%	0.00%
Load Control	0	0.00%	100.00%	0.00%	0.00%
Distribution	34,000	0.15%	100.00%	0.00%	0.00%
Pumping	3,000	0.01%	100.00%	0.00%	0.00%
Emergency & Support Services		0.00%	100.00%	0.00%	0.00%
Sewer Direct Costs					
Biosolids Engr Services	0	0.00%	0.00%	100.00%	0.00%
Biosolids Utilization	0	0.00%	0.00%	100.00%	0.00%
Biosolids Processing		0.00%	0.00%	100.00%	0.00%
NEWPCP	778,000	3.45%	0.00%	100.00%	0.00%
SWWPCP	465,000	2.06%	0.00%	100.00%	0.00%
SEWPCP	450,000	1.99%	0.00%	100.00%	0.00%
Industrial Waste	3,100	0.01%	0.00%	100.00%	0.00%
Sewer Maintenance	10,300	0.05%	0.00%	100.00%	0.00%
Inlet Cleaning	0	0.00%	0.00%	100.00%	0.00%
Interceptors/Flow Control	1,503,000	6.66%	0.00%	100.00%	0.00%
Data & Flow Control	0	0.00%	0.00%	100.00%	0.00%
Collector System Support	0	0.00%	0.00%	100.00%	0.00%
Allocated Costs					
Treatment Headquarters (50/50)	2,000	0.01%	50.00%	50.00%	0.00%
Machine Shops (50/50)	0	0.00%	50.00%	50.00%	0.00%
Building Maintenance (50/50)	0	0.00%	50.00%	50.00%	0.00%
Security (50/50)	0	0.00%	50.00%	50.00%	0.00%
Operations Admin/Delinquencies/Plumbing. (50/50)	0	0.00%	50.00%	50.00%	0.00%
Materials Management (50/50)	40,000	0.18%	50.00%	50.00%	0.00%
Customer Service (50/50)	0	0.00%	50.00%	50.00%	0.00%
Warranty Program		0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)	0	0.00%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)	0	0.00%	35.00%	65.00%	0.00%
Total	22,575,800	100.00%	85.69%	14.31%	0.00%

Direct O&M - Water and Sewer Allocation - Operations Class 300 Excluding Chemicals **Assumptions - 28**

	2016 Budget Detail		Allocation		
			Water	Wastewater	Stormwater
Water Direct Costs					
Baxter Treatment Plant	1,292,000	7.07%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant	909,000	4.97%	100.00%	0.00%	0.00%
Belmont Treatment Plant	579,000	3.17%	100.00%	0.00%	0.00%
Conveyance Headquarters		0.00%	100.00%	0.00%	0.00%
Load Control	131,000	0.72%	100.00%	0.00%	0.00%
Distribution	296,000	1.62%	100.00%	0.00%	0.00%
Pumping	501,000	2.74%	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	50,000	0.27%	0.00%	100.00%	0.00%
NEWPCP	1,856,000	10.15%	0.00%	100.00%	0.00%
SWWPCP	1,132,000	6.19%	0.00%	100.00%	0.00%
SEWPCP	1,406,000	7.69%	0.00%	100.00%	0.00%
Industrial Waste	46,700	0.26%	0.00%	100.00%	0.00%
Sewer Maintenance	705,400	3.86%	0.00%	100.00%	0.00%
Inlet Cleaning	116,200	0.64%	0.00%	100.00%	0.00%
Interceptors/Flow Control	672,500	3.68%	0.00%	100.00%	0.00%
Data & Flow Control	0	0.00%	0.00%	100.00%	0.00%
Collector System Support	2,100	0.01%	0.00%	100.00%	0.00%
Allocated Costs					
Treatment Headquarters (50/50)	8,100	0.04%	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)	786,100	4.30%	50.00%	50.00%	0.00%
Materials Management (50/50)	7,633,000	41.74%	50.00%	50.00%	0.00%
Customer Service (50/50)	33,000	0.18%	50.00%	50.00%	0.00%
Warranty Program		0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)	131,000	0.72%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)	0	0.00%	35.00%	65.00%	0.00%
Total	18,286,100	100.00%	43.77%	56.23%	0.00%

Direct O&M - Water and Sewer Allocation - Operations Class 400 **Assumptions - 29**

	2016 Budget Detail		Allocation		
			Water	Wastewater	Stormwater
Water Direct Costs					
Baxter Treatment Plant	558,000	31.03%	100.00%	0.00%	0.00%
Queen Lane Treatment Plant	35,000	1.95%	100.00%	0.00%	0.00%
Belmont Treatment Plant	47,000	2.61%	100.00%	0.00%	0.00%
Conveyance Headquarters	0	0.00%	100.00%	0.00%	0.00%
Load Control	30,000	1.67%	100.00%	0.00%	0.00%
Distribution	278,000	15.46%	100.00%	0.00%	0.00%
Pumping	41,000	2.28%	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	0.00%	0.00%	100.00%	0.00%
NEWPCP	212,000	11.79%	0.00%	100.00%	0.00%
SWWPCP	189,000	10.51%	0.00%	100.00%	0.00%
SEWPCP	169,000	9.40%	0.00%	100.00%	0.00%
Industrial Waste	5,000	0.28%	0.00%	100.00%	0.00%
Sewer Maintenance	48,500	2.70%	0.00%	100.00%	0.00%
Inlet Cleaning	29,500	1.64%	0.00%	100.00%	0.00%
Interceptors/Flow Control	13,000	0.72%	0.00%	100.00%	0.00%
Data & Flow Control	0	0.00%	0.00%	100.00%	0.00%
Collector System Support	0	0.00%	0.00%	100.00%	0.00%
Allocated Costs					
Treatment Headquarters (50/50)	5,000	0.28%	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)	108,000	6.01%	50.00%	50.00%	0.00%
Materials Management (50/50)	2,000	0.11%	50.00%	50.00%	0.00%
Customer Service (50/50)	17,000	0.95%	50.00%	50.00%	0.00%
Warranty Program		0.00%	50.00%	50.00%	0.00%
Meter Shop (50/50)	11,000	0.61%	50.00%	50.00%	0.00%
Automotive Maintenance (35/65)	0	0.00%	35.00%	65.00%	0.00%
Total	1,798,000	100.00%	58.98%	41.02%	0.00%

Inter Departmental O&M Actual to Budget Factors **Assumptions - 30**

		Use	Historical Averages 1 Year	3 Year	5 Year	Actual to Budget Factor 2015	2014	2013	2012	2011
PWD Inter Departmental O&M										
Division of Technology										
Salaries & Wages	100	81.64%	89.96%	81.64%	81.76%	89.96%	82.50%	72.12%	77.57%	86.37%
Services	200	89.53%	88.54%	89.53%	77.91%	88.54%	88.47%	91.82%	65.00%	54.84%
Materials and Supplies	300	76.76%	88.52%	76.76%	70.13%	88.52%	78.33%	59.32%	58.81%	58.42%
Equipment	400	0.00%								
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Division of Technology			88.97%	86.00%	78.50%	88.97%	85.88%	82.76%	68.38%	64.73%
Mayor's Office of Transportation & Utilities										
Salaries & Wages	100	96.99%	98.74%	96.99%	97.24%	98.74%	92.89%	100.00%	100.00%	
Services	200	96.00%		0.00%	0.00%		0.00%	0.00%		
Materials and Supplies	300	0.00%								
Equipment	400	0.00%								
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Mayor's Office of Transportation & Utilities			98.74%	77.93%	79.42%	98.74%	67.05%	71.91%	100.00%	
Police										
Salaries & Wages	100	100.00%								
Services	200	0.00%								
Materials and Supplies	300	0.00%								
Equipment	400	0.00%								
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Police										
Public Property										
Salaries & Wages	100	0.00%								
Services	200	100.00%	100.00%	100.00%	99.92%	100.00%	100.00%	100.00%	99.63%	100.00%
Materials and Supplies	300	0.00%								
Equipment	400	0.00%								
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Public Property			100.00%	100.00%	99.92%	100.00%	100.00%	100.00%	99.63%	100.00%

Inter Departmental O&M Actual to Budget Factors **Assumptions - 30**

		Actual					Budget				
		2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
PWD Inter Departmental O&M											
Division of Technology											
Salaries & Wages	100	$ 5,233,042	$ 4,621,214	$ 4,039,582	$ 3,994,808	$ 4,442,039	$ 5,816,911	$ 5,601,271	$ 5,601,271	$ 5,149,616	$ 5,142,942
Services	200	$ 10,226,939	$ 9,567,462	$ 9,214,801	$ 6,797,598	$ 5,734,828	$ 11,551,218	$ 10,814,511	$ 10,035,811	$ 10,457,725	$ 10,457,725
Materials and Supplies	300	$ 1,609,074	$ 944,117	$ 791,307	$ 737,735	$ 732,780	$ 1,817,650	$ 1,205,350	$ 1,334,050	$ 1,254,358	$ 1,254,358
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Division of Technology		$ 17,069,055	$ 15,132,793	$ 14,045,690	$ 11,530,141	$ 10,909,647	$ 19,185,779	$ 17,621,132	$ 16,971,132	$ 16,861,699	$ 16,855,025
Mayor's Office of Transportation & Utilities											
Salaries & Wages	100	$ 227,983	$ 208,176	$ 169,948	$ 56,160	$ -	$ 230,886	$ 224,100	$ 169,948	$ 56,160	$ -
Services	200	$ -	$ -	$ -	$ -	$ -	$ -	$ 86,400	$ 66,400	$ -	$ -
Materials and Supplies	300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Mayor's Office of Transportation & Utilities		$ 227,983	$ 208,176	$ 169,948	$ 56,160	$ -	$ 230,886	$ 310,500	$ 236,348	$ 56,160	$ -
Police											
Salaries & Wages	100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Services	200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Materials and Supplies	300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Police		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property											
Salaries & Wages	100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Services	200	$ 3,959,919	$ 3,786,428	$ 3,739,360	$ 3,725,560	$ 2,500,266	$ 3,959,919	$ 3,786,428	$ 3,739,360	$ 3,739,360	$ 2,500,266
Materials and Supplies	300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Public Property		$ 3,959,919	$ 3,786,428	$ 3,739,360	$ 3,725,560	$ 2,500,266	$ 3,959,919	$ 3,786,428	$ 3,739,360	$ 3,739,360	$ 2,500,266

			Historical Averages			Actual to Budget Factor				
		Use	1 Year	3 Year	5 Year	2015	2014	2013	2012	2011
Fleet Management										
Salaries & Wages	100	90.75%	87.65%	90.75%	88.15%	87.65%	91.82%	93.02%	86.93%	81.35%
Services	200	85.56%	99.95%	85.56%	86.35%	99.95%	96.63%	60.10%	84.40%	90.67%
Materials and Supplies	300	95.35%	99.01%	95.35%	97.59%	99.01%	98.86%	88.18%	92.60%	109.28%
Equipment	400	0.00%								
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Fleet Management			95.31%	92.14%	92.55%	95.31%	96.20%	84.83%	89.34%	97.01%
City Finance										
Salaries & Wages	100	0.00%								
Benefits	1xx	92.93%	90.91%	92.93%	94.26%	90.91%	94.73%	93.60%	89.02%	104.45%
Pension	191	100.00%	97.29%	83.44%	87.79%	97.29%	78.49%	76.13%	89.94%	103.87%
Pension Obligations	190	100.00%	97.57%	172.27%	147.53%	97.57%	215.87%	216.88%	102.90%	107.38%
Services	200	0.00%								
Materials and Supplies	300	0.00%								
Equipment	400	0.00%								
Contributions	500	100.00%	59.09%	76.75%	71.99%	59.09%	92.86%	78.31%	46.88%	82.83%
Transfers	800	0.00%								
Subtotal City Finance			92.14%	95.62%	95.35%	92.14%	98.90%	95.95%	88.03%	102.92%
Revenue										
Salaries & Wages	100	88.85%	87.81%	88.85%	88.79%	87.81%	86.71%	92.14%	87.72%	89.75%
Services	200	100.22%	99.92%	100.22%	98.21%	99.92%	100.80%	99.93%	95.47%	94.22%
Materials and Supplies	300	84.04%	98.42%	84.04%	75.38%	98.42%	87.32%	69.45%	58.19%	71.16%
Equipment	400	95.00%								
Contributions	500	100.00%	25.46%	24.05%	17.21%	25.46%	32.07%	11.33%	10.50%	5.67%
Transfers	800	0.00%								
Subtotal Revenue			91.36%	91.54%	90.45%	91.36%	90.33%	92.96%	87.90%	89.67%
Procurement										
Salaries & Wages	100	89.35%	78.66%	89.35%	86.92%	78.66%	90.90%	99.79%	66.43%	99.78%
Services	200	0.00%								
Materials and Supplies	300	0.00%								
Equipment	400	0.00%								
Contributions	500	0.00%								
Transfers	800	0.00%								
Subtotal Procurement			78.66%	89.35%	86.92%	78.66%	90.90%	99.79%	66.43%	99.78%

		Actual					Budget				
		2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Fleet Management											
Salaries & Wages	100	$ 2,602,612	$ 2,521,284	$ 2,554,406	$ 2,387,074	$ 2,233,948	$ 2,969,317	$ 2,745,986	$ 2,745,986	$ 2,745,986	$ 2,745,986
Services	200	$ 1,488,271	$ 1,438,785	$ 894,932	$ 1,256,788	$ 1,350,082	$ 1,489,000	$ 1,489,000	$ 1,489,000	$ 1,489,000	$ 1,489,000
Materials and Supplies	300	$ 4,232,497	$ 4,225,827	$ 3,769,562	$ 3,958,404	$ 4,671,274	$ 4,274,640	$ 4,274,640	$ 4,274,640	$ 4,274,640	$ 4,274,640
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Fleet Management		$ 8,323,380	$ 8,185,896	$ 7,218,900	$ 7,602,266	$ 8,255,304	$ 8,732,957	$ 8,509,626	$ 8,509,626	$ 8,509,626	$ 8,509,626
City Finance											
Salaries & Wages	100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Benefits	1xx	$ 48,293,131	$ 41,044,344	$ 40,369,391	$ 38,395,202	$ 42,279,349	$ 53,120,209	$ 43,330,000	$ 43,130,000	$ 43,130,000	$ 40,480,000
Pension	191	$ 40,861,335	$ 38,305,052	$ 35,507,147	$ 38,770,167	$ 32,719,112	$ 42,000,000	$ 48,800,000	$ 46,638,000	$ 43,106,000	$ 31,500,000
Pension Obligations	190	$ 11,415,451	$ 22,450,403	$ 20,452,252	$ 9,843,048	$ 9,449,462	$ 11,700,000	$ 10,400,000	$ 9,430,000	$ 9,566,000	$ 8,800,000
Services	200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Materials and Supplies	300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ 3,840,767	$ 6,036,098	$ 5,090,210	$ 3,046,915	$ 5,383,670	$ 6,500,000	$ 6,500,000	$ 6,500,000	$ 6,500,000	$ 6,500,000
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal City Finance		$ 104,410,684	$ 107,835,896	$ 101,418,999	$ 90,055,332	$ 89,831,593	$ 113,320,209	$ 109,030,000	$ 105,698,000	$ 102,302,000	$ 87,280,000
Revenue											
Salaries & Wages	100	$ 10,013,594	$ 9,701,251	$ 10,020,393	$ 9,729,716	$ 9,557,122	$ 11,404,254	$ 11,188,570	$ 10,874,716	$ 11,092,316	$ 10,649,066
Services	200	$ 4,241,117	$ 4,133,603	$ 4,020,068	$ 3,677,818	$ 3,371,322	$ 4,244,480	$ 4,100,780	$ 4,022,815	$ 3,852,510	$ 3,578,000
Materials and Supplies	300	$ 630,784	$ 688,157	$ 561,421	$ 525,300	$ 650,423	$ 640,920	$ 788,120	$ 808,425	$ 902,800	$ 913,980
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ 1,273	$ 481	$ 170	$ 315	$ 170	$ 5,000	$ 1,500	$ 1,500	$ 3,000	$ 3,000
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Revenue		$ 14,886,768	$ 14,523,492	$ 14,602,052	$ 13,933,149	$ 13,579,037	$ 16,294,654	$ 16,078,970	$ 15,707,456	$ 15,850,626	$ 15,144,046
Procurement											
Salaries & Wages	100	$ 60,866	$ 62,746	$ 68,882	$ 45,856	$ 69,074	$ 77,383	$ 69,028	$ 69,028	$ 69,028	$ 69,228
Services	200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Materials and Supplies	300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Procurement		$ 60,866	$ 62,746	$ 68,882	$ 45,856	$ 69,074	$ 77,383	$ 69,028	$ 69,028	$ 69,028	$ 69,228

			Historical Averages			Actual to Budget Factor				
		Use	1 Year	3 Year	5 Year	2015	2014	2013	2012	2011
Law										
Salaries & Wages	100	90.42%	85.29%	90.42%	93.74%	85.29%	90.15%	96.11%	99.18%	98.40%
Services	200	73.46%	44.77%	73.46%	82.53%	44.77%	96.99%	78.62%	97.21%	95.06%
Materials and Supplies	300	47.32%	18.60%	47.32%	64.19%	18.60%	38.74%	84.61%	79.00%	100.00%
Equipment	400	0.00%								
Contributions	500	100.00%								
Transfers	800	0.00%								
Subtotal Law			75.76%	86.14%	90.88%	75.76%	90.95%	92.06%	98.45%	97.71%
PWD Inter Departmental O&M Expenses Summary										
Salaries & Wages	100		88.14%	87.51%	87.55%	88.14%	86.73%	87.63%	86.37%	88.90%
Benefits	1xx		90.91%	92.93%	94.26%	90.91%	94.73%	93.60%	89.02%	104.45%
Pension	191		97.29%	83.44%	87.79%	97.29%	78.49%	76.13%	89.94%	103.87%
Pension Obligations	190		97.57%	172.27%	147.53%	97.57%	215.87%	216.88%	102.90%	107.38%
Services	200		92.20%	92.51%	86.34%	92.20%	93.46%	91.86%	79.73%	72.74%
Power	220									
Materials and Supplies	300		95.63%	89.60%	88.80%	95.63%	93.09%	79.85%	81.17%	94.01%
Chemicals	307									
Equipment	400									
Contributions	500		59.06%	76.73%	71.97%	59.06%	92.85%	78.30%	46.86%	82.79%
Transfers	800									
Total PWD Inter Departmental O&M Expenses Summary			91.73%	93.82%	92.74%	91.73%	96.24%	93.56%	86.38%	96.04%

		Actual					Budget				
		2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Law											
Salaries & Wages	100	$ 2,137,491	$ 2,192,613	$ 2,281,362	$ 2,286,502	$ 2,476,451	$ 2,506,206	$ 2,432,087	$ 2,373,754	$ 2,305,324	$ 2,516,764
Services	200	$ 309,631	$ 670,808	$ 543,724	$ 672,341	$ 657,417	$ 691,614	$ 691,614	$ 691,614	$ 691,614	$ 691,614
Materials and Supplies	300	$ 8,002	$ 16,663	$ 36,392	$ 33,976	$ 43,010	$ 43,010	$ 43,010	$ 43,010	$ 43,010	$ 43,010
Equipment	400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contributions	500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers	800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Law		$ 2,455,124	$ 2,880,084	$ 2,861,478	$ 2,992,819	$ 3,176,878	$ 3,240,830	$ 3,166,711	$ 3,108,378	$ 3,039,948	$ 3,251,388
PWD Inter Departmental O&M Expenses Summary											
Salaries & Wages	100	$ 20,275,588	$ 19,307,284	$ 19,134,573	$ 18,500,116	$ 18,778,634	$ 23,004,957	$ 22,261,042	$ 21,834,703	$ 21,418,430	$ 21,123,986
Benefits	1xx	48,293,131	41,044,344	40,369,391	38,395,202	42,279,349	53,120,209	43,330,000	43,130,000	43,130,000	40,480,000
Pension	191	40,861,335	38,305,052	35,507,147	38,770,167	32,719,112	42,000,000	48,800,000	46,638,000	43,106,000	31,500,000
Pension Obligations	190	11,415,451	22,450,403	20,452,252	9,843,048	9,449,462	11,700,000	10,400,000	9,430,000	9,566,000	8,800,000
Services	200	20,225,877	19,597,086	18,412,885	16,130,105	13,613,915	21,936,231	20,968,733	20,045,000	20,230,209	18,716,605
Power	220	-	-	-	-	-	-	-	-	-	-
Materials and Supplies	300	6,480,357	5,874,764	5,158,682	5,255,415	6,097,487	6,776,220	6,311,120	6,460,125	6,474,808	6,485,988
Chemicals	307	-	-	-	-	-	-	-	-	-	-
Equipment	400	-	-	-	-	-	-	-	-	-	-
Contributions	500	3,842,040	6,036,579	5,090,380	3,047,230	5,383,840	6,505,000	6,501,500	6,501,500	6,503,000	6,503,000
Transfers	800	-	-	-	-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Expenses Summary		**$ 151,393,779**	**$ 152,615,511**	**$ 144,125,309**	**$ 129,941,283**	**$ 128,321,799**	**$ 165,042,617**	**$ 158,572,395**	**$ 154,039,328**	**$ 150,428,447**	**$ 133,609,579**

Inter Departmental O&M - Water and Sewer Allocation **Assumptions - 31**

		2016 Budget Detail		Allocation		
				Water	Wastewater	Stormwater
PWD Inter Departmental O&M						
Division of Technology						
Class 100 - UBIS		642,557	10.26%	33.30%	33.40%	33.30%
Class 100 - All Other		5,622,732	89.74%	61.00%	39.00%	0.00%
Class 100 - Total	100	6,265,289	100.00%	58.16%	38.43%	3.42%
Class 200 - UBIS		6,199,400	42.15%	33.30%	33.40%	33.30%
Class 200 - All Other		8,507,097	57.85%	61.00%	39.00%	0.00%
Class 200 - Total	200	14,706,497	100.00%	49.32%	36.64%	14.04%
Class 300 - UBIS		67,200	31.08%	33.30%	33.40%	33.30%
Class 300 - All Other		149,000	68.92%	61.00%	39.00%	0.00%
Class 300 - Total	300	216,200	100.00%	52.39%	37.26%	10.35%
Class 400 - UBIS		561,900	31.06%	33.30%	33.40%	33.30%
Class 400 - All Other		1,247,050	68.94%	61.00%	39.00%	0.00%
Class 400 - Total	400	1,808,950	100.00%	52.40%	37.26%	10.34%
Class 500 - UBIS		0	0.00%	33.30%	33.40%	33.30%
Class 500 - All Other		0	100.00%	61.00%	39.00%	0.00%
Class 500 - Total	500	0	100.00%	61.00%	39.00%	0.00%
Class 800 - UBIS		0	0.00%	33.30%	33.40%	33.30%
Class 800 - All Other		0	100.00%	61.00%	39.00%	0.00%
Class 800 - Total	800	0	100.00%	61.00%	39.00%	0.00%
Subtotal Division of Technology		22,996,936				

	2016 Budget Detail	Allocation Water	Allocation Wastewater	Allocation 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				
Police				
	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 Police				
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				
City Finance				
	100	36.00%	64.00%	0.00%
	110	NA	NA	NA
	110	NA	NA	NA
	110	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				

	2016 Budget Detail	Allocation Water	Allocation Wastewater	Allocation Stormwater
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				
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**

		Averages Growth			Annual Growth						
	Use	1 Year	3 Year	5 Year	2015	2016	2017	2018	2019	2020	2021
WTP Sludge Costs	6.00%	8.02%	6.34%	6.08%		0.06%	4.77%	6.63%	5.40%	5.60%	8.02%

NOTE: ONLY REQUIRED FOR PROJECTIONS BEYOND FY 2021. PROJECTIONS THRU FY2021 REFLECT ALLOCATIONS FROM SCOS.

Liquidated Encumbrance Ratio **Assumptions - 33**

	Use	Historical Averages			Liquidated Encumbrance Ratio				
		1 Year	3 Year	5 Year	2015	2014	2013	2012	2011
Actual	12.00%	12.50%	19.23%	17.66%	12.50%	24.93%	20.45%	14.24%	16.11%
Budget	23,051,442	12.29%	12.08%	12.03%	12.29%	12.56%	11.37%	12.80%	11.08%

Ratio: Liquidated Encumbrances to Total Class 200 & 300 O&M

Liquidated Encumbrance Ratio **Assumptions - 33**

	Class 200 & 300 O&M					Liquidated Encumbrances				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Actual	$ 154,790,275	$ 150,180,463	$ 152,337,151	$ 146,123,301	$ 137,940,874	$ 19,351,000	$ 37,436,342	$ 31,148,000	$ 20,802,000	$ 22,225,000
Budget	178,939,900	175,123,600	175,874,300	156,189,400	153,416,100	$ 22,000,000	$ 22,000,000	$ 20,000,000	$ 20,000,000	$ 17,000,000

Liquidated Encumbrance Water/Sewer Allocation **Assumptions - 34**

		Averages Growth			Allocation of Class 200 & 300						
	Use	1 Year	3 Year	5 Year	2015	2016	2017	2018	2019	2020	2021
Direct Costs - Class 200 & 300											
Water	40.00%	37.05%	37.12%	37.12%	37.05%	37.60%	36.72%	36.67%	36.82%	36.83%	36.84%
Sewer	60.00%	62.95%	62.88%	62.88%	62.95%	62.40%	63.28%	63.33%	63.18%	63.17%	63.16%
Total	100.00%	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 **Assumptions - 34**

	Projected Class 200 & 300						
	2015	2016	2017	2018	2019	2020	2021
Direct Costs - Class 200 & 300							
Water	$ 62,386,588	$ 66,136,015	$ 69,603,339	$ 70,444,796	$ 72,335,111	$ 74,281,676	$ 76,190,689
Sewer	106,001,821	109,735,581	119,944,215	121,650,552	124,123,169	127,382,325	130,642,667
Total	$ 168,388,409	$ 175,871,596	$ 189,547,554	$ 192,095,348	$ 196,458,280	$ 201,664,001	$ 206,833,356

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%
Medium	4%
High	4%
Base Year	2017

TRANSFER TO GENERAL FUND ADJUSTMENT								Assumptions - 38
Description	Water	2015	2016	2017	2018	2019	2020	2021
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
Non-Discount	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)
Water & Sewer	1,050	1.050	14,127.81	14.128	10,136.00	10.136
SW Only	1,050	1.050	2,295.49	2.295	6,821.00	6.821
Discount Non-PHA						
Water & Sewer	1,050	1.050	46,926.43	46.926	26,439.00	26.439
SW Only	1,050	1.050	12,580.00	12.580	20,647.00	20.647
Discount PHA						
Water & Sewer	1,050	1.050	23,030.41	23.030	6,158.00	6.158
SW Only	1,050	1.050	1,087.96	1.088		0.000
City Owned						
Water & Sewer	1,050	1.050	144,603.13	144.603	7,842.00	7.842
SW Only	1,050	1.050	14,557.28	14.557		0.000

Average GA Per Parcel	Residential	Use	Non Residential	Use	Condominium	Use
Non-Discount	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)	(Sq Ft)	(1,000 Sq Ft)
Water & Sewer	2,110	2.110	22,410.87	22.411	15,060.00	15.060
SW Only	2,110	2.110	6,940.07	6.940	10,697.00	10.697
Discount Non-PHA						
Water & Sewer	2,110	2.110	90,855.70	90.856	55,948.00	55.948
SW Only	2,110	2.110	21,591.00	21.591	24,687.00	24.687
Discount PHA						
Water & Sewer	2,110	2.110	46,129.71	46.130	9,358.00	9.358
SW Only	2,110	2.110	4,209.87	4.210		0.000
City Owned						
Water & Sewer	2,110	2.110	482,117.70	482.118	8,543.00	8.543
SW Only	2,110	2.110	95,328.65	95.329		0.000

Average is for 2 years -FY 2014 and FY 2015 (as of March 2015)

STORMWATER DEDUCTIONS PROJECTIONS **Assumptions - 40**

Factor 1,000

	IA and GA For Use (1,000 Sq Ft)						Credit Projections -Source UOS Book & Credit Projections Book					
Total credits (Excluding Fairmount Park)	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	2021
Parcels	959	1,052	1,145	1,238	1,331	1,424	959	1,052	1,145	1,238	1,331	1,424
Impervious Area	88,919	97,969	107,203	117,038	126,985	137,059	88,919,108	97,969,298	107,202,618	117,037,948	126,985,278	137,058,608
Gross Area	258,313	274,570	290,926	307,786	324,646	341,506	258,312,656	274,569,596	290,925,666	307,785,736	324,645,816	341,505,886
Total credits (City Owned Fairmount Park)	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	2021
Parcels	1	1	1	1	1	1	1	1	1	1	1	1
Impervious Area	37	37	37	37	37	37	37,362	37,362	37,362	37,362	37,362	37,362
Gross Area	262	262	262	262	262	262	261,924	261,924	261,924	261,924	261,924	261,924

Choose Credit Allocation	0

	Use-Percent Allocation for projection of Credits			Existing (0)-Percent Allocation for projection of Credits			Alternative (1)-Percent Allocation for projection of Credits		
	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%
SW Only	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Discount Non-PHA									
Water & Sewer	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%
Discount PHA									
Water & Sewer	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%
City Owned									
Water & Sewer	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%
Non Residential									
Non-Discount									
Water & Sewer	50.1%	68.3%	49.2%	50.05%	68.27%	49.15%	0.0%	0.0%	0.0%
SW Only	25.5%	13.0%	24.7%	25.49%	13.03%	24.67%	0.0%	0.0%	0.0%
Discount Non-PHA									
Water & Sewer	17.4%	5.8%	12.4%	17.42%	5.82%	12.39%	0.0%	0.0%	0.0%
SW Only	1.4%	0.1%	0.1%	1.38%	0.13%	0.10%	0.0%	0.0%	0.0%
Discount PHA									
Water & Sewer	0.1%	0.0%	0.1%	0.12%	0.00%	0.10%	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%
City owned									
Water & Sewer	2.0%	9.7%	11.4%	1.96%	9.71%	11.39%	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%
Condominiums									
Non-Discount									
Water & Sewer	3.1%	2.7%	1.9%	3.11%	2.66%	1.90%	0.0%	0.0%	0.0%
SW Only	0.1%	0.1%	0.1%	0.12%	0.08%	0.10%	0.0%	0.0%	0.0%
Discount Non-PHA									
Water & Sewer	0.4%	0.3%	0.2%	0.35%	0.30%	0.20%	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%
Discount PHA									
Water & Sewer	0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	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%
City Owned									
Water & Sewer	0.0%	0.0%	0.0%	0.00%	0.00%	0.00%	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%

Appeals	Use	Average	2016	2015	2014	2013
Annual Impervious Area Loss Per Parcel (sf)	3.245	3,245	2,950	3,540	8,130	5,820
Annual Gross Area Loss Per Parcel (sf)	3.690	3,690	6,470	910	1,070	6,630

Projection	2016	2017	2018	2019	2020
# of Appeals	-10.00%	-8.00%	-6.00%	-5.00%	-5.00%

Exemptions	Use	To Use	2016	2015	2014	2013	Projection	2016	2017	2018	2019	2020
Residential Sideyards												
Impervious Area Per Parcel (sf)	0.368	368	368	372	355	364	# of Parcels	-10.00%	-8.00%	-6.00%	-5.00%	-5.00%
Gross Area Per Parcel (sf)	4.612	4,612	4,612	4,686	4,813	5,399						
City Owned Vacant Lots												
Impervious Area Per Parcel (sf)	1.122	1,122	1,122	1,012	997	972	# of Parcels	10.00%	10.00%	10.00%	10.00%	10.00%
Gross Area Per Parcel (sf)	8.374	8,374	8,374	7,956	7,971	7,871						
In Street Exempt Parcels												
Impervious Area Per Parcel (sf)	20.801	20,801	20,801	20,772	20,743	20,871						
Gross Area Per Parcel (sf)	26.575	26,575	26,575	26,512	26,446	26,442						

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
City Leased Properties	12.00
Scheduled	12.00
City	12.00
Fire Service	12.00
Public Fire (Hydrants)	12.00
Sewer Only	12.00
Groundwater	12.00

FINPLAN15.XLS

CUSTOMER

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Customer - 6	Water - Calculated Billings (prior to adjustment factor)
Customer - 7	Water - Retail - Billings Under Existing Rates
Customer - 8	Water - General Service Collections
Customer - 9	Water - Wholesale
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Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water - Accounts													**Customer - 1**
Senior Citizens													
5/8" Meter	Account - No Growth	18,545	18,797	19,153	19,230	19,518	20,188	20,188	20,188	20,188	20,188	20,188	20,188
> 5/8" Meter	Account - No Growth	2	2	4	5	5	4	4	4	4	4	4	4
Total Senior Citizens		18,547	18,799	19,157	19,235	19,523	20,192	20,192	20,192	20,192	20,192	20,192	20,192
General Service (Residential)													
5/8" Meter	Account - No Growth	435,464	437,808	424,599	410,750	410,553	403,992	403,992	403,992	403,992	403,992	403,992	403,992
> 5/8" Meter	Account - No Growth	9,653	9,610	3,463	3,587	4,263	4,827	4,827	4,827	4,827	4,827	4,827	4,827
Total General Service (Residential)		445,117	447,418	428,062	414,337	414,816	408,819	408,819	408,819	408,819	408,819	408,819	408,819
General Service (Commercial)													
5/8" Meter	Account - No Growth	-	-	27,620	27,381	27,978	27,872	27,872	27,872	27,872	27,872	27,872	27,872
> 5/8" Meter	Account - No Growth	-	-	5,948	5,936	6,356	6,570	6,570	6,570	6,570	6,570	6,570	6,570
Total General Service (Commercial)		-	-	33,568	33,317	34,334	34,442	34,442	34,442	34,442	34,442	34,442	34,442
General Service (Industrial)													
5/8" Meter	Account - No Growth	-	-	530	537	520	547	547	547	547	547	547	547
> 5/8" Meter	Account - No Growth	-	-	573	509	568	533	533	533	533	533	533	533
Total General Service (Industrial)		-	-	1,103	1,046	1,088	1,080	1,080	1,080	1,080	1,080	1,080	1,080
General Service (Public Utilities)													
5/8" Meter	Account - No Growth	-	-	34	34	37	44	44	44	44	44	44	44
> 5/8" Meter	Account - No Growth	-	-	64	74	82	83	83	83	83	83	83	83
Total General Service (Public Utilities)		-	-	98	108	119	127	127	127	127	127	127	127
General Service (Excluding Senior Citizens)													
5/8" Meter		435,464	437,808	452,783	438,702	439,088	432,455	432,455	432,455	432,455	432,455	432,455	432,455
> 5/8" Meter		9,653	9,610	10,048	10,106	11,269	12,013	12,013	12,013	12,013	12,013	12,013	12,013
Total General Service (excluding SC)		445,117	447,418	462,831	448,808	450,357	444,468	444,468	444,468	444,468	444,468	444,468	444,468
General Service (Including Senior Citizens)													
5/8" Meter		454,009	456,605	471,936	457,932	458,606	452,643	452,643	452,643	452,643	452,643	452,643	452,643
> 5/8" Meter		9,655	9,612	10,052	10,111	11,274	12,017	12,017	12,017	12,017	12,017	12,017	12,017
Total General Service (including SC)		463,664	466,217	481,988	468,043	469,880	464,660	464,660	464,660	464,660	464,660	464,660	464,660

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA	Account - No Growth	6,099	6,112	6,164	6,023	5,981	5,896	5,896	5,896	5,896	5,896	5,896	5,896
Charity and Schools	Account - No Growth	3,164	3,122	2,743	2,701	2,731	2,607	2,607	2,607	2,607	2,607	2,607	2,607
Hospital/University	Account - No Growth	-	-	397	409	427	502	502	502	502	502	502	502
Hand Bill	Account - No Growth	-	-	287	264	272	270	270	270	270	270	270	270
City Leased Properties	Account - No Growth	-	-	78	72	69	70	70	70	70	70	70	70
Scheduled	Account - No Growth	-	-	2	2	2	2	2	2	2	2	2	2
City	Account - No Growth	812	923	1,033	935	921	972	972	972	972	972	972	972
Fire Service	Account - No Growth	4,087	4,240	3,486	3,306	3,511	4,104	4,104	4,104	4,104	4,104	4,104	4,104
Fire Hydrants	Account - No Growth	25,208	25,324	25,353	25,321	25,364	25,364	25,364	25,364	25,364	25,364	25,364	25,364
Total		503,034	505,938	521,531	507,076	509,158	504,447	504,447	504,447	504,447	504,447	504,447	504,447
Fire Service (Unmetered)	Account - No Growth	3,934	4,176	5,424	5,567	6,528	7,498	7,498	7,498	7,498	7,498	7,498	7,498

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water Only													**Customer - 2**
Accounts													
Senior Citizens													
5/8" Meter	Account - No Growth	13	12	9	13	17	17	17	17	17	17	17	17
> 5/8" Meter	Account - No Growth	-	-	1	1	1	1	1	1	1	1	1	1
Total Senior Citizens		13	12	10	14	18	18	18	18	18	18	18	18
General Service (Residential)													
5/8" Meter	Account - No Growth	1,290	1,228	805	1,039	1,267	1,259	1,259	1,259	1,259	1,259	1,259	1,259
> 5/8" Meter	Account - No Growth	238	223	590	713	797	893	893	893	893	893	893	893
Total General Service (Residential)		1,528	1,451	1,395	1,752	2,064	2,152	2,152	2,152	2,152	2,152	2,152	2,152
General Service (Commercial)													
5/8" Meter	Account - No Growth	-	-	56	73	84	85	85	85	85	85	85	85
> 5/8" Meter	Account - No Growth	-	-	404	448	498	562	562	562	562	562	562	562
Total General Service (Commercial)		-	-	460	521	582	647	647	647	647	647	647	647
General Service (Industrial)													
5/8" Meter	Account - No Growth	-	-	2	3	3	3	3	3	3	3	3	3
> 5/8" Meter	Account - No Growth	-	-	31	36	38	40	40	40	40	40	40	40
Total General Service (Industrial)		-	-	33	39	41	43	43	43	43	43	43	43
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
Total General Service (Public Utilities)		-	-	2	3	3	3	3	3	3	3	3	3
General Service (Excluding Senior Citizens)													
5/8" Meter		1,290	1,228	863	1,115	1,354	1,347	1,347	1,347	1,347	1,347	1,347	1,347
> 5/8" Meter		238	223	1,027	1,200	1,336	1,498	1,498	1,498	1,498	1,498	1,498	1,498
Total General Service (excluding SC)		1,528	1,451	1,890	2,315	2,690	2,845	2,845	2,845	2,845	2,845	2,845	2,845
General Service (Including Senior Citizens)													
5/8" Meter		1,303	1,240	872	1,128	1,371	1,364	1,364	1,364	1,364	1,364	1,364	1,364
> 5/8" Meter		238	223	1,028	1,201	1,337	1,499	1,499	1,499	1,499	1,499	1,499	1,499
Total General Service (including SC)		1,541	1,463	1,900	2,329	2,708	2,863	2,863	2,863	2,863	2,863	2,863	2,863

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA	Account - No Growth	-	-	99	119	124	135	135	135	135	135	135	135
Charities & Schools	Account - No Growth	40	35	108	108	125	107	107	107	107	107	107	107
Hospital/University	Account - No Growth	-	-	46	44	52	71	71	71	71	71	71	71
Hand Bill	Account - No Growth	-	-	16	16	18	23	23	23	23	23	23	23
City Leased Properties	Account - No Growth	-	-	21	24	28	30	30	30	30	30	30	30
Scheduled	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City	Account - No Growth	24	36	101	100	91	110	110	110	110	110	110	110
Fire Service	Account - No Growth	-	-	3,397	3,221	3,430	4,030	4,030	4,030	4,030	4,030	4,030	4,030
Fire Hydrants	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Total		1,605	1,534	5,688	5,961	6,576	7,369	7,369	7,369	7,369	7,369	7,369	7,369
Billed Volume (Mcf)													
Senior Citizens													
5/8" Meter	Volume - No Growth	80	76	54	68	83	70	70	70	70	70	70	70
> 5/8" Meter	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Total Senior Citizens		80	76	54	68	83	70	70	70	70	70	70	70
General Service (Residential)													
5/8" Meter	Volume - No Growth	10,806	12,187	6,441	8,952	10,177	10,552	10,552	10,552	10,552	10,552	10,552	10,552
> 5/8" Meter	Volume - No Growth	65,633	82,399	1,552	3,461	2,962	3,198	3,198	3,198	3,198	3,198	3,198	3,198
Total General Service (Residential)		76,440	94,586	7,993	12,413	13,139	13,750	13,750	13,750	13,750	13,750	13,750	13,750
General Service (Commercial)													
5/8" Meter	Volume - No Growth	-	-	561	945	898	919	919	919	919	919	919	919
> 5/8" Meter	Volume - No Growth	-	-	11,501	16,150	18,169	26,384	26,384	26,384	26,384	26,384	26,384	26,384
Total General Service (Commercial)		-	-	12,062	17,095	19,067	27,303	27,303	27,303	27,303	27,303	27,303	27,303
General Service (Industrial)													
5/8" Meter	Volume - No Growth	-	-	20	28	48	39	39	39	39	39	39	39
> 5/8" Meter	Volume - No Growth	-	-	16,690	8,548	11,701	5,973	5,973	5,973	5,973	5,973	5,973	5,973
Total General Service (Industrial)		-	-	16,710	8,576	11,749	6,012	6,012	6,012	6,012	6,012	6,012	6,012
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
Total General Service (Public Utilities)		-	-	1	1	1	1	1	1	1	1	1	1
General Service (Excluding Senior Citizens)													
5/8" Meter		10,806	12,187	7,022	9,925	11,123	11,510	11,510	11,510	11,510	11,510	11,510	11,510
> 5/8" Meter		65,633	82,399	29,744	28,160	32,833	35,556	35,556	35,556	35,556	35,556	35,556	35,556
Total General Service (excluding SC)		76,440	94,586	36,766	38,085	43,956	47,066	47,066	47,066	47,066	47,066	47,066	47,066

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
General Service (Including Senior Citizens)													
5/8" Meter		10,887	12,263	7,076	9,993	11,206	11,580	11,580	11,580	11,580	11,580	11,580	11,580
> 5/8" Meter		65,633	82,399	29,744	28,160	32,833	35,556	35,556	35,556	35,556	35,556	35,556	35,556
Total General Service (including SC)		76,520	94,662	36,820	38,153	44,039	47,136	47,136	47,136	47,136	47,136	47,136	47,136
PHA	Volume - No Growth	-	-	-	12	23	28	28	28	28	28	28	28
Charities & Schools	Volume - No Growth	1,200	3,120	695	929	6,057	1,265	1,265	1,265	1,265	1,265	1,265	1,265
Hospital/University	Volume - No Growth	-	-	69	60	51	44	44	44	44	44	44	44
Hand Bill	Volume - No Growth	-	-	28,205	39,032	37,723	76,122	76,122	76,122	76,122	76,122	76,122	76,122
City Leased Properties	Volume - No Growth	-	-	2,211	2,431	3,652	4,295	4,295	4,295	4,295	4,295	4,295	4,295
Scheduled	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City	Volume - No Growth	2,245	2,473	1,852	1,939	1,660	2,053	2,053	2,053	2,053	2,053	2,053	2,053
Fire Service	Volume - No Growth	-	-	5,407	6,123	6,286	7,915	7,915	7,915	7,915	7,915	7,915	7,915
Fire Hydrants	Volume - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Total		79,965	100,255	75,259	88,679	99,491	138,858	138,858	138,858	138,858	138,858	138,858	138,858

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water - Billed Volume (Mcf)													**Customer - 3**
Senior Citizens													
5/8" Meter		105,481	108,404	106,297	110,057	109,915	115,925	113,255	111,640	110,025	108,410	106,795	105,179
> 5/8" Meter		37	32	56	73	48	28	33	33	33	33	33	33
Total Senior Citizens		105,518	108,436	106,353	110,129	109,963	115,954	113,288	111,673	110,058	108,443	106,828	105,213
General Service (Residential)													
5/8" Meter		3,478,101	3,477,410	3,034,519	3,021,077	2,901,905	2,864,109	2,823,904	2,783,505	2,743,106	2,706,746	2,674,427	2,642,108
> 5/8" Meter		2,000,567	1,993,526	387,069	379,139	366,322	356,604	386,160	386,160	386,160	387,013	388,453	389,673
Total General Service (Residential)		5,478,667	5,470,936	3,421,588	3,400,216	3,268,227	3,220,713	3,210,064	3,169,665	3,129,266	3,093,760	3,062,880	3,031,781
General Service (Commercial)													
5/8" Meter		-	-	308,177	314,585	310,005	320,503	310,215	305,477	301,018	297,116	293,771	290,148
> 5/8" Meter		-	-	886,072	927,296	914,581	975,555	959,220	959,220	959,220	961,340	964,916	967,946
Total General Service (Commercial)		-	-	1,194,249	1,241,882	1,224,586	1,296,058	1,269,435	1,264,697	1,260,238	1,258,455	1,258,687	1,258,093
General Service (Industrial)													
5/8" Meter		-	-	5,814	5,761	5,758	6,221	6,061	5,968	5,880	5,804	5,738	5,672
> 5/8" Meter		-	-	100,862	85,902	90,318	84,463	85,280	85,280	85,280	85,468	85,786	86,056
Total General Service (Industrial)		-	-	106,676	91,663	96,076	90,683	91,341	91,248	91,160	91,272	91,524	91,728
General Service (Public Utilities)													
5/8" Meter		-	-	417	462	424	394	442	436	429	422	416	410
> 5/8" Meter		-	-	6,433	8,472	8,085	10,318	9,255	9,255	9,255	9,255	9,255	9,255
Total General Service (Public Utilities)		-	-	6,850	8,934	8,508	10,712	9,697	9,690	9,684	9,677	9,671	9,665
General Service (Excluding Senior Citizens)													
5/8" Meter		3,478,101	3,477,410	3,348,928	3,341,886	3,218,091	3,191,226	3,140,622	3,095,385	3,050,433	3,010,088	2,974,352	2,938,338
> 5/8" Meter		2,000,567	1,993,526	1,380,435	1,400,809	1,379,306	1,426,940	1,439,915	1,439,915	1,439,915	1,443,076	1,448,410	1,452,929
Total General Service (excluding SC)		5,478,667	5,470,936	4,729,363	4,742,695	4,597,397	4,618,166	4,580,537	4,535,300	4,490,347	4,453,164	4,422,762	4,391,267
General Service (Including Senior Citizens)													
5/8" Meter		3,583,581	3,585,814	3,455,224	3,451,943	3,328,006	3,307,152	3,253,877	3,207,025	3,160,457	3,118,498	3,081,147	3,043,517
> 5/8" Meter		2,000,604	1,993,558	1,380,491	1,400,882	1,379,354	1,426,968	1,439,948	1,439,948	1,439,948	1,443,109	1,448,443	1,452,962
Total General Service (including SC)		5,584,185	5,579,372	4,835,716	4,852,824	4,707,360	4,734,120	4,693,825	4,646,973	4,600,405	4,561,607	4,529,590	4,496,479

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		189,555	186,964	176,852	166,971	165,984	178,327	170,984	170,984	170,984	170,984	170,984	170,984
Charities & Schools		486,877	513,022	215,860	216,268	217,250	192,057	199,696	199,696	199,696	199,696	199,696	199,696
Hospital/University		-	-	270,914	261,941	262,373	272,764	291,160	291,160	291,160	291,160	291,160	291,160
Hand Bill		-	-	571,226	566,551	562,496	573,950	567,000	567,000	567,000	567,000	567,000	567,000
City Leased Properties		-	-	8,004	6,813	8,095	8,984	8,610	8,610	8,610	8,610	8,610	8,610
Scheduled		-	-	12	16	22	21	21	21	21	21	21	21
City		255,050	233,500	254,944	233,283	219,674	243,041	237,460	237,460	237,460	237,460	237,460	237,460
Fire Service		11,852	6,471	16,208	15,986	9,277	11,569	11,081	11,081	11,081	11,081	11,081	11,081
Fire Hydrants		-	-	-	-	-	-	-	-	-	-	-	-
Total		6,527,519	6,519,329	6,349,734	6,320,652	6,152,531	6,214,832	6,179,837	6,132,985	6,086,417	6,047,619	6,015,602	5,982,491

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water - Billed Volume Per Account (Mcf/Account)													**Customer - 4**
Senior Citizens													
5/8" Meter	Volume - Small Decrease	5.69	5.77	5.55	5.72	5.63	5.74	5.61	5.53	5.45	5.37	5.29	5.21
> 5/8" Meter	Volume - No Growth	18.60	16.00	14.05	14.50	9.60	7.05	8.30	8.30	8.30	8.30	8.30	8.30
Total Senior Citizens		5.69	5.77	5.55	5.73	5.63	5.74	5.61	5.53	5.45	5.37	5.29	5.21
General Service (Residential)													
5/8" Meter	Volume - Small Decrease	7.99	7.94	7.15	7.36	7.07	7.09	6.99	6.89	6.79	6.70	6.62	6.54
> 5/8" Meter	Volume - No Growth with	207.24	207.44	111.77	105.70	85.93	73.88	80.00	80.00	80.00	80.18	80.48	80.73
Total General Service (Residential)		12.31	12.23	7.99	8.21	7.88	7.88	7.85	7.75	7.65	7.57	7.49	7.42
General Service (Commercial)													
5/8" Meter	Volume - Small Decrease	-	-	11.16	11.49	11.08	11.50	11.13	10.96	10.80	10.66	10.54	10.41
> 5/8" Meter	Volume - No Growth with	-	-	148.97	156.22	143.89	148.49	146.00	146.00	146.00	146.32	146.87	147.33
Total General Service (Commercial)		-	-	35.58	37.27	35.67	37.63	36.86	36.72	36.59	36.54	36.55	36.53
General Service (Industrial)													
5/8" Meter	Volume - Small Decrease	-	-	10.97	10.73	11.07	11.37	11.08	10.91	10.75	10.61	10.49	10.37
> 5/8" Meter	Volume - No Growth with	-	-	176.02	168.77	159.01	158.47	160.00	160.00	160.00	160.35	160.95	161.46
Total General Service (Industrial)		-	-	96.71	87.63	88.31	83.97	84.57	84.49	84.41	84.51	84.74	84.93
General Service (Public Utilities)													
5/8" Meter	Volume - Small Decrease	-	-	12.26	13.60	11.45	8.96	10.05	9.90	9.75	9.60	9.46	9.32
> 5/8" Meter	Volume - No Growth	-	-	100.51	114.49	98.59	124.31	111.50	111.50	111.50	111.50	111.50	111.50
Total General Service (Public Utilities)		-	-	69.89	82.73	71.50	84.35	76.35	76.30	76.25	76.20	76.15	76.10
General Service (Excluding Senior Citizens)													
5/8" Meter		7.99	7.94	7.40	7.62	7.33	7.38	7.26	7.16	7.05	6.96	6.88	6.79
> 5/8" Meter		207.24	207.44	137.38	138.61	122.40	118.78	119.86	119.86	119.86	120.13	120.57	120.95
Total General Service (excluding SC)		12.31	12.23	10.22	10.57	10.21	10.39	10.31	10.20	10.10	10.02	9.95	9.88
General Service (Including Senior Citizens)													
5/8" Meter		7.89	7.85	7.32	7.54	7.26	7.31	7.19	7.09	6.98	6.89	6.81	6.72
> 5/8" Meter		207.21	207.40	137.33	138.55	122.35	118.75	119.83	119.83	119.83	120.09	120.53	120.91
Total General Service (including SC)		12.04	11.97	10.03	10.37	10.02	10.19	10.10	10.00	9.90	9.82	9.75	9.68

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA	Volume - No Growth	31.08	30.59	28.69	27.72	27.75	30.25	29.00	29.00	29.00	29.00	29.00	29.00
Charities & Schools	Volume - No Growth	153.87	164.32	78.69	80.07	79.55	73.67	76.60	76.60	76.60	76.60	76.60	76.60
Hospital/University	Volume - No Growth	-	-	682.40	640.44	614.46	543.35	580.00	580.00	580.00	580.00	580.00	580.00
Hand Bill	Volume - No Growth	-	-	1,990.33	2,146.03	2,068.00	2,125.74	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00	2,100.00
City Leased Properties	Volume - No Growth	-	-	102.61	94.62	117.31	128.35	123.00	123.00	123.00	123.00	123.00	123.00
Scheduled	Volume - No Growth	-	-	5.75	7.80	11.00	10.35	10.70	10.70	10.70	10.70	10.70	10.70
City	Volume - No Growth	314.29	252.98	246.80	249.50	238.52	250.04	244.30	244.30	244.30	244.30	244.30	244.30
Fire Service	Volume - No Growth	2.90	1.53	4.65	4.84	2.64	2.82	2.70	2.70	2.70	2.70	2.70	2.70
Fire Hydrants	Volume - No Growth	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		12.98	12.89	12.18	12.46	12.08	12.32	12.25	12.16	12.07	11.99	11.93	11.86

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Water - Existing Rates													**Customer - 5**
Actual Rate													
Service Charge ($/bill)													
5/8"		$ 5.53	$ 5.94	$ 6.37	$ 6.12	$ 6.44	$ 6.46	$ 6.46	$ 6.46	$ 6.46	$ 6.46	$ 6.46	$ 6.46
3/4"		6.40	6.84	7.31	7.11	7.47	7.49	7.49	7.49	7.49	7.49	7.49	7.49
1"		8.49	9.05	9.65	9.51	9.97	9.98	9.98	9.98	9.98	9.98	9.98	9.98
1 1/4"		11.10	11.80	12.55	12.51	13.08	13.10	13.10	13.10	13.10	13.10	13.10	13.10
1 1/2"		13.16	13.95	14.81	14.89	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56
2"		19.45	20.57	21.82	22.10	23.06	23.05	23.05	23.05	23.05	23.05	23.05	23.05
3"		33.36	35.21	37.27	38.07	39.69	39.64	39.64	39.64	39.64	39.64	39.64	39.64
4"		58.14	61.45	65.10	66.21	69.05	69.00	69.00	69.00	69.00	69.00	69.00	69.00
6"		112.48	118.76	125.72	128.30	133.73	133.60	133.60	133.60	133.60	133.60	133.60	133.60
8"		175.37	185.05	195.78	200.33	208.72	208.47	208.47	208.47	208.47	208.47	208.47	208.47
10"		254.49	268.60	284.23	290.56	302.78	302.43	302.43	302.43	302.43	302.43	302.43	302.43
12"		445.03	468.83	495.30	510.02	530.87	530.00	530.00	530.00	530.00	530.00	530.00	530.00
14"		-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge ($/Mcf)													
0 - 2 Mcf		27.19	29.85	32.85	35.63	37.12	39.05	39.05	39.05	39.05	39.05	39.05	39.05
2 - 100 Mcf		21.93	24.13	26.62	28.64	30.20	31.54	31.54	31.54	31.54	31.54	31.54	31.54
100 - 2,000 Mcf		20.07	22.14	24.43	26.30	27.56	28.95	28.95	28.95	28.95	28.95	28.95	28.95
Over 2,000 Mcf		15.30	16.86	18.60	19.48	20.93	21.98	21.98	21.98	21.98	21.98	21.98	21.98
Private Fire Charge ($/bill)													
5/8"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
3/4"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
1"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
1 1/4"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
1 1/2"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
2"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
3"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
4"		20.26	21.95	23.77	22.38	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
6"		36.79	39.85	43.16	40.80	43.11	43.35	43.35	43.35	43.35	43.35	43.35	43.35
8"		54.39	58.90	63.78	60.53	63.93	64.27	64.27	64.27	64.27	64.27	64.27	64.27
10"		80.51	87.19	94.43	89.48	94.51	95.03	95.03	95.03	95.03	95.03	95.03	95.03
12"		120.50	130.48	141.32	135.39	142.90	143.61	143.61	143.61	143.61	143.61	143.61	143.61
14"		-	-	-	-	-	-	-	-	-	-	-	-
Public Fire Charge (Annual Charge)		6,056,000	6,498,000	6,951,000	7,391,000	7,874,000	8,162,000	8,162,000	8,162,000	8,162,000	8,162,000	8,162,000	8,162,000

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Effective Rate													
Effective Months													
Service Charge		12.00	12.00	12.00	6.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Volume Charge		11.50	11.50	11.50	5.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Service Charge													
5/8"		5.53	5.94	6.37	6.25	6.44	6.46	6.46	6.46	6.46	6.46	6.46	6.46
3/4"		6.40	6.84	7.31	7.21	7.47	7.49	7.49	7.49	7.49	7.49	7.49	7.49
1"		8.49	9.05	9.65	9.58	9.97	9.98	9.98	9.98	9.98	9.98	9.98	9.98
1 1/4"		11.10	11.80	12.55	12.53	13.08	13.10	13.10	13.10	13.10	13.10	13.10	13.10
1 1/2"		13.16	13.95	14.81	14.85	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56
2"		19.45	20.57	21.82	21.96	23.06	23.05	23.05	23.05	23.05	23.05	23.05	23.05
3"		33.36	35.21	37.27	37.67	39.69	39.64	39.64	39.64	39.64	39.64	39.64	39.64
4"		58.14	61.45	65.10	65.66	69.05	69.00	69.00	69.00	69.00	69.00	69.00	69.00
6"		112.48	118.76	125.72	127.01	133.73	133.60	133.60	133.60	133.60	133.60	133.60	133.60
8"		175.37	185.05	195.78	198.06	208.72	208.47	208.47	208.47	208.47	208.47	208.47	208.47
10"		254.49	268.60	284.23	287.40	302.78	302.43	302.43	302.43	302.43	302.43	302.43	302.43
12"		445.03	468.83	495.30	502.66	530.87	530.00	530.00	530.00	530.00	530.00	530.00	530.00
14"		-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge													
0 - 2 Mcf		27.19	29.74	32.73	34.12	37.06	38.97	39.05	39.05	39.05	39.05	39.05	39.05
2 - 100 Mcf		21.93	24.04	26.52	27.55	30.14	31.48	31.54	31.54	31.54	31.54	31.54	31.54
100 - 2,000 Mcf		20.07	22.05	24.33	25.29	27.51	28.89	28.95	28.95	28.95	28.95	28.95	28.95
Over 2,000 Mcf		15.30	16.80	18.53	19.00	20.87	21.94	21.98	21.98	21.98	21.98	21.98	21.98
Private Fire Charge													
5/8"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
3/4"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
1"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
1 1/4"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
1 1/2"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
2"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
3"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
4"		20.26	21.95	23.77	23.08	23.66	23.79	23.79	23.79	23.79	23.79	23.79	23.79
6"		36.79	39.85	43.16	41.98	43.11	43.35	43.35	43.35	43.35	43.35	43.35	43.35
8"		54.39	58.90	63.78	62.16	63.93	64.27	64.27	64.27	64.27	64.27	64.27	64.27
10"		80.51	87.19	94.43	91.96	94.51	95.03	95.03	95.03	95.03	95.03	95.03	95.03
12"		120.50	130.48	141.32	138.36	142.90	143.61	143.61	143.61	143.61	143.61	143.61	143.61
14"		-	-	-	-	-	-	-	-	-	-	-	-

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water - Calculated Billings (prior to adjustment factor)													**Customer - 6**
Senior Citizens													
5/8" Meter		3,044	3,390	3,672	3,859	4,146	4,516	4,445	4,399	4,352	4,305	4,259	4,212
> 5/8" Meter		1	1	2	2	2	1	1	1	1	1	1	1
Total Senior Citizens		3,045	3,391	3,674	3,861	4,148	4,517	4,447	4,400	4,354	4,307	4,260	4,214
General Service (Residential)													
5/8" Meter		120,592	131,508	128,801	130,753	136,103	139,563	138,260	136,730	135,201	133,824	132,600	131,376
> 5/8" Meter		54,659	59,523	13,063	13,350	14,177	14,611	15,758	15,758	15,758	15,790	15,845	15,891
Total General Service (Residential)		175,251	191,031	141,864	144,103	150,280	154,175	154,018	152,488	150,959	149,614	148,444	147,267
General Service (Commercial)													
5/8" Meter		-	-	10,670	11,138	11,929	12,738	12,418	12,262	12,114	11,985	11,875	11,755
> 5/8" Meter		-	-	26,526	28,711	30,981	34,436	33,956	33,956	33,956	34,026	34,145	34,245
Total General Service (Commercial)		-	-	37,196	39,849	42,910	47,174	46,375	46,218	46,070	46,011	46,019	46,000
General Service (Industrial)													
5/8" Meter		-	-	193	198	212	237	232	229	226	224	222	220
> 5/8" Meter		-	-	2,820	2,498	2,867	2,803	2,833	2,833	2,833	2,839	2,849	2,858
Total General Service (Industrial)		-	-	3,013	2,696	3,079	3,039	3,065	3,063	3,060	3,063	3,071	3,078
General Service (Public Utilities)													
5/8" Meter		-	-	14	16	16	16	18	18	17	17	17	17
> 5/8" Meter		-	-	203	272	287	372	338	338	338	338	338	338
Total General Service (Public Utilities)		-	-	217	288	303	388	356	355	355	355	355	354
General Service (Excluding Senior Citizens)													
5/8" Meter		120,592	131,508	139,678	142,104	148,259	152,555	150,928	149,239	147,558	146,050	144,713	143,367
> 5/8" Meter		54,659	59,523	42,612	44,831	48,313	52,221	52,886	52,886	52,886	52,994	53,177	53,331
Total General Service (excluding SC)		175,251	191,031	182,290	186,935	196,573	204,776	203,814	202,124	200,444	199,044	197,890	196,698
General Service (Including Senior Citizens)													
5/8" Meter		123,636	134,898	143,350	145,963	152,405	157,070	155,374	153,637	151,910	150,355	148,972	147,579
> 5/8" Meter		54,660	59,524	42,614	44,833	48,315	52,223	52,887	52,887	52,887	52,995	53,178	53,333
Total General Service (including SC)		178,296	194,422	185,964	190,797	200,720	209,293	208,261	206,524	204,797	203,351	202,150	200,912

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		4,676	5,050	5,283	5,180	5,580	6,212	5,989	5,989	5,989	5,989	5,989	5,989
Charities & Schools		8,888	10,196	5,027	5,205	5,687	5,281	5,476	5,476	5,476	5,476	5,476	5,476
Hospital/University		-	-	5,429	5,462	5,971	6,522	6,955	6,955	6,955	6,955	6,955	6,955
Hand Bill		-	-	13,835	14,209	15,395	16,458	16,292	16,292	16,292	16,292	16,292	16,292
City Leased Properties		-	-	225	200	250	285	275	275	275	275	275	275
Scheduled		-	-	1	1	1	1	1	1	1	1	1	1
City		5,624	5,711	6,872	6,515	6,692	7,720	7,566	7,566	7,566	7,566	7,566	7,566
Fire Service		252	151	417	427	270	353	339	339	339	339	339	339
Private Fire (Unmetered)		1,418	1,631	2,294	2,290	2,757	3,184	3,184	3,184	3,184	3,184	3,184	3,184
Public Fire Charge (Hydrants)		6,056	6,498	6,951	7,391	7,874	8,162	8,162	8,162	8,162	8,162	8,162	8,162
Total		205,210	223,659	232,297	237,677	251,197	263,470	262,501	260,764	259,037	257,590	256,390	255,152

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water - Retail - Billings Under Existing Rates													**Customer - 7**
Senior Citizens													
5/8" Meter		3,044	3,390	3,672	3,859	4,146	4,516	4,423	4,377	4,330	4,284	4,237	4,191
> 5/8" Meter		1	1	2	2	2	1	1	1	1	1	1	1
Total Senior Citizens		3,045	3,391	3,674	3,861	4,148	4,517	4,425	4,378	4,332	4,285	4,239	4,193
General Service (Residential)													
5/8" Meter		120,592	131,508	128,801	130,753	136,103	139,563	137,569	136,047	134,525	133,154	131,937	130,719
> 5/8" Meter		54,659	59,523	13,063	13,350	14,177	14,611	15,679	15,679	15,679	15,711	15,766	15,812
Total General Service (Residential)		175,251	191,031	141,864	144,103	150,280	154,175	153,248	151,726	150,204	148,866	147,702	146,530
General Service (Commercial)													
5/8" Meter		-	-	10,670	11,138	11,929	12,738	12,356	12,200	12,054	11,925	11,815	11,696
> 5/8" Meter		-	-	26,526	28,711	30,981	34,436	33,787	33,787	33,787	33,856	33,974	34,074
Total General Service (Commercial)		-	-	37,196	39,849	42,910	47,174	46,143	45,987	45,840	45,781	45,789	45,770
General Service (Industrial)													
5/8" Meter		-	-	193	198	212	237	231	228	225	223	221	219
> 5/8" Meter		-	-	2,820	2,498	2,867	2,803	2,819	2,819	2,819	2,825	2,835	2,843
Total General Service (Industrial)		-	-	3,013	2,696	3,079	3,039	3,050	3,047	3,045	3,048	3,056	3,062
General Service (Public Utilities)													
5/8" Meter		-	-	14	16	16	16	18	17	17	17	17	17
> 5/8" Meter		-	-	203	272	287	372	336	336	336	336	336	336
Total General Service (Public Utilities)		-	-	217	288	303	388	354	354	353	353	353	353
General Service (Excluding Senior Citizens)													
5/8" Meter		120,592	131,508	139,678	142,104	148,259	152,555	150,174	148,492	146,821	145,319	143,989	142,650
> 5/8" Meter		54,659	59,523	42,612	44,831	48,313	52,221	52,621	52,621	52,621	52,729	52,911	53,065
Total General Service (excluding SC)		175,251	191,031	182,290	186,935	196,573	204,776	202,795	201,114	199,442	198,048	196,900	195,715
General Service (Including Senior Citizens)													
5/8" Meter		123,636	134,898	143,350	145,963	152,405	157,070	154,597	152,869	151,151	149,603	148,227	146,841
> 5/8" Meter		54,660	59,524	42,614	44,833	48,315	52,223	52,623	52,623	52,623	52,730	52,912	53,066
Total General Service (including SC)		178,296	194,422	185,964	190,797	200,720	209,293	207,220	205,492	203,773	202,334	201,139	199,907

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		4,676	5,050	5,283	5,180	5,580	6,212	5,959	5,959	5,959	5,959	5,959	5,959
Charities & Schools		8,888	10,196	5,027	5,205	5,687	5,281	5,449	5,449	5,449	5,449	5,449	5,449
Hospital/University		-	-	5,429	5,462	5,971	6,522	6,920	6,920	6,920	6,920	6,920	6,920
Hand Bill		-	-	13,835	14,209	15,395	16,458	16,211	16,211	16,211	16,211	16,211	16,211
City Leased Properties		-	-	225	200	250	285	274	274	274	274	274	274
Scheduled		-	-	1	1	1	1	1	1	1	1	1	1
City		5,624	5,711	6,872	6,515	6,692	7,720	7,528	7,528	7,528	7,528	7,528	7,528
Fire Service		252	151	417	427	270	353	338	338	338	338	338	338
Private Fire (Unmetered)		1,418	1,631	2,294	2,290	2,757	2,374	3,168	3,168	3,168	3,168	3,168	3,168
Public Fire Charge (Hydrants)		6,056	6,498	6,951	7,391	7,874	8,162	8,162	8,162	8,162	8,162	8,162	8,162
Misc City		-	-	-	-	-	-	-	-	-	-	-	-
Total		205,210	223,659	232,297	237,677	251,197	262,661	261,229	259,501	257,783	256,343	255,148	253,917
									257,521				

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water - General Service Collections													**Customer - 8**
					216,991	229,273	238,034						
Total General Service Billings		191,860	209,668	215,763	221,053	233,604	244,052	242,034	240,306	238,588	237,148	235,953	234,721
Collection Factors													
Current Year		85.20%	80.60%	83.40%	83.30%	84.80%	84.80%	84.30%	84.30%	84.30%	84.30%	84.30%	84.30%
First Year Prior		9.28%	9.28%	8.93%	10.05%	10.20%	10.25%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Second Year Prior		2.00%	2.00%	2.00%	2.00%	2.35%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Collections		Actual	Actual	Actual	Actual	Actual	Calculated						
General Service		170,641	188,957	201,720	211,482	222,500	235,321	233,112	231,662	230,001	228,580	227,395	226,208
City		7,411	7,711	8,254	7,843	9,369	8,046	7,528	7,528	7,528	7,528	7,528	7,528
Public Fire		5,992	6,562	6,951	7,391	7,874	8,162	8,162	8,162	8,162	8,162	8,162	8,162
Private Fire		1,593	1,846	2,097	2,026	2,236	2,727	3,505	3,505	3,505	3,505	3,505	3,505
Total		185,637	205,076	219,021	228,742	241,979	254,257	252,307	250,858	249,196	247,776	246,590	245,404
General Service	Calculated			202,507	210,015	225,714	235,321						
General Service + Wholesale	Calculated			212,854	219,918	237,192	239,077						
General Service + Wholesale	Actual			212,741	221,394	234,037	239,758						
	Ratio			100%	99%	101%	100%						
Collections - Detail													
Senior Citizens							4,333	4,265	4,224	4,178	4,133	4,089	4,044
General Service (Residential)							149,026	147,611	146,313	144,859	143,549	142,404	141,273
General Service (Commercial)							45,199	44,474	44,325	44,165	44,097	44,095	44,078
General Service (Industrial)							2,947	2,937	2,935	2,932	2,935	2,942	2,948
General Service (Public Utilities)							366	343	341	340	340	340	340
PHA							5,944	5,756	5,744	5,739	5,739	5,739	5,739
Charities & Schools							5,165	5,235	5,244	5,247	5,247	5,247	5,247
Hospital/University							6,252	6,605	6,656	6,664	6,664	6,664	6,664
Hand Bill							15,818	15,619	15,616	15,611	15,611	15,611	15,611
City Leased Properties							271	264	264	264	264	264	264
Scheduled							1	1	1	1	1	1	1
City							8,046	7,528	7,528	7,528	7,528	7,528	7,528
Fire Service							353	338	338	338	338	338	338
Private Fire (Unmetered)							2,374	3,168	3,168	3,168	3,168	3,168	3,168
Public Fire Charge (Hydrants)							8,162	8,162	8,162	8,162	8,162	8,162	8,162
Misc City							-	-	-	-	-	-	-
Total							254,257	252,307	250,858	249,196	247,776	246,590	245,404

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Water - Wholesale													**Customer - 9**
Bucks County													
Commodity Charge ($/Mcf)		1.237	1.428	1.651	1.218	1.708	1.218	1.708	1.708	1.708	1.708	1.708	1.708
Demand Charge ($/mgd of maximum demand)		84,204	91,551	99,347	109,095	135,048	109,095	135,048	135,048	135,048	135,048	135,048	135,048
Lump Sum Payment ($/year)		3,930,563	3,003,000	3,036,000	2,784,100	3,226,000	-	-	-	-	-	-	-
Usage (Mcf)		749,759	761,203	646,968	535,749	535,000	-	-	-	-	-	-	-
Max Demand (mgd)		24.50	24.50	24.50	21.00	21.00	-	-	-	-	-	-	-
Management Fee		0.00%	0.00%	0.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	0.00%
Commodity ($1,000)		927	1,087	1,068	653	914	-	-	-	-	-	-	-
Demand ($1,000)		2,063	2,243	2,434	2,291	2,836	-	-	-	-	-	-	-
Lump Sum ($1,000)		3,931	3,003	3,036	2,784	3,226	-	-	-	-	-	-	-
Management Fee ($1,000)		-	-	-	687	837	-	-	-	-	-	-	-
Subtotal ($1,000)		6,921	6,333	6,538	6,415	7,813	-	-	-	-	-	-	-
Aqua PA													
Commodity Charge ($/Mcf)		2.506	2.828	3.217	2.448	2.698	2.969	2.969	2.969	2.969	2.969	2.969	2.969
Lump Sum Payment ($/year)		2,465,000	2,636,000	2,816,000	2,775,000	2,933,000	3,030,000	3,030,000	3,030,000	3,030,000	3,030,000	3,030,000	3,030,000
Usage (Mcf)		175,619	178,679	201,045	161,918	147,909	129,410	110,000	110,000	110,000	110,000	110,000	110,000
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)		440	505	647	396	399	384	327	327	327	327	327	327
Lump Sum ($1,000)		2,465	2,636	2,816	2,775	2,933	3,030	3,030	3,030	3,030	3,030	3,030	3,030
Management Fee ($1,000)		291	314	346	317	333	341	336	336	336	336	336	336
Subtotal ($1,000)		3,196	3,455	3,809	3,489	3,665	3,756	3,692	3,692	3,692	3,692	3,692	3,692
Total ($1,000)		10,117	9,788	10,347	9,904	11,478	3,756	3,692	3,692	3,692	3,692	3,692	3,692
Actual		10,181	9,928	11,001	9,912	11,537	3,750						

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Water - Revenue Summary													**Customer - 10**
Revenue ($1,000)													
General Service		170,641	188,957	201,720	211,482	222,500	235,321	233,112	231,662	230,001	228,580	227,395	226,208
City		7,411	7,711	8,254	7,843	9,369	8,046	7,528	7,528	7,528	7,528	7,528	7,528
Public Fire		5,992	6,562	6,951	7,391	7,874	8,162	8,162	8,162	8,162	8,162	8,162	8,162
Private Fire		1,593	1,846	2,097	2,026	2,236	2,727	3,505	3,505	3,505	3,505	3,505	3,505
Wholesale		10,117	9,788	10,347	9,904	11,478	3,756	3,692	3,692	3,692	3,692	3,692	3,692
Total		195,753	214,865	229,368	238,646	253,457	258,012	255,999	254,550	252,888	251,468	250,283	249,096

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sewer - Accounts													**Customer - 11**
Senior Citizens													
5/8" Meter		18,532	18,785	19,144	19,217	19,501	20,171	20,171	20,171	20,171	20,171	20,171	20,171
> 5/8" Meter		2	2	3	4	4	3	3	3	3	3	3	3
Total Senior Citizens		18,534	18,787	19,147	19,221	19,505	20,174	20,174	20,174	20,174	20,174	20,174	20,174
General Service (Residential)													
5/8" Meter		434,174	436,580	423,794	409,711	409,286	402,733	402,733	402,733	402,733	402,733	402,733	402,733
> 5/8" Meter		9,415	9,387	2,873	2,874	3,466	3,934	3,934	3,934	3,934	3,934	3,934	3,934
Total General Service (Residential)		443,589	445,967	426,667	412,585	412,752	406,667	406,667	406,667	406,667	406,667	406,667	406,667
General Service (Commercial)													
5/8" Meter		-	-	27,564	27,308	27,894	27,787	27,787	27,787	27,787	27,787	27,787	27,787
> 5/8" Meter		-	-	5,544	5,488	5,858	6,008	6,008	6,008	6,008	6,008	6,008	6,008
Total General Service (Commercial)		-	-	33,108	32,796	33,752	33,795	33,795	33,795	33,795	33,795	33,795	33,795
General Service (Industrial)													
5/8" Meter		-	-	528	534	517	544	544	544	544	544	544	544
> 5/8" Meter		-	-	542	473	530	493	493	493	493	493	493	493
Total General Service (Industrial)		-	-	1,070	1,007	1,047	1,037	1,037	1,037	1,037	1,037	1,037	1,037
General Service (Public Utilities)													
5/8" Meter		-	-	34	34	37	44	44	44	44	44	44	44
> 5/8" Meter		-	-	62	71	79	80	80	80	80	80	80	80
Total General Service (Public Utilities)		-	-	96	105	116	124	124	124	124	124	124	124
General Service (Excluding Senior Citizens)													
5/8" Meter		434,174	436,580	451,920	437,587	437,734	431,108	431,108	431,108	431,108	431,108	431,108	431,108
> 5/8" Meter		9,415	9,387	9,021	8,906	9,933	10,515	10,515	10,515	10,515	10,515	10,515	10,515
Total General Service (excluding SC)		443,589	445,967	460,941	446,493	447,667	441,623	441,623	441,623	441,623	441,623	441,623	441,623
General Service (Including Senior Citizens)													
5/8" Meter		452,706	455,365	471,064	456,804	457,235	451,279	451,279	451,279	451,279	451,279	451,279	451,279
> 5/8" Meter		9,417	9,389	9,024	8,910	9,937	10,518	10,518	10,518	10,518	10,518	10,518	10,518
Total General Service (including SC)		462,123	464,754	480,088	465,714	467,172	461,797	461,797	461,797	461,797	461,797	461,797	461,797

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		6,099	6,112	6,065	5,904	5,857	5,761	5,761	5,761	5,761	5,761	5,761	5,761
Charities & Schools		3,125	3,087	2,635	2,593	2,606	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Hospital/University		-	-	351	365	375	431	431	431	431	431	431	431
Hand Bill		-	-	271	248	254	247	247	247	247	247	247	247
City Leased Properties		-	-	57	48	41	40	40	40	40	40	40	40
Scheduled		-	-	2	2	2	2	2	2	2	2	2	2
City		787	887	932	835	830	862	862	862	862	862	862	862
Fire Service		53	64	89	85	81	74	74	74	74	74	74	74
Sewer Only	Account - No Growth	26	26	36	46	59	66	66	66	66	66	66	66
Groundwater (Non-City)	Account - No Growth	-	-	-	-	-	4	4	4	4	4	4	4
City Groundwater	Account - No Growth	-	-	4	5	5	5	5	5	5	5	5	5
Total		472,213	474,930	490,530	475,845	477,282	471,789	471,789	471,789	471,789	471,789	471,789	471,789

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sewer - Billed Volume (Mcf)													**Customer - 12**
Senior Citizens													
5/8" Meter		105,400	108,328	106,243	109,989	109,832	115,855	113,185	111,570	109,955	108,340	106,725	105,109
> 5/8" Meter		37	32	56	73	48	28	33	33	33	33	33	33
Total Senior Citizens		105,437	108,360	106,299	110,061	109,880	115,884	113,218	111,603	109,988	108,373	106,758	105,143
General Service (Residential)													
5/8" Meter		3,467,295	3,465,223	3,028,078	3,012,125	2,891,728	2,853,557	2,813,352	2,772,953	2,732,554	2,696,194	2,663,875	2,631,556
> 5/8" Meter		1,934,933	1,911,127	385,517	375,678	363,360	353,406	382,962	382,962	382,962	383,815	385,255	386,475
Total General Service (Residential)		5,402,228	5,376,351	3,413,595	3,387,803	3,255,088	3,206,963	3,196,314	3,155,915	3,115,516	3,080,010	3,049,130	3,018,031
General Service (Commercial)													
5/8" Meter		-	-	307,616	313,640	309,107	319,584	309,296	304,558	300,099	296,197	292,852	289,229
> 5/8" Meter		-	-	874,571	911,146	896,412	949,171	932,836	932,836	932,836	934,956	938,532	941,562
Total General Service (Commercial)		-	-	1,182,187	1,224,787	1,205,519	1,268,755	1,242,132	1,237,394	1,232,935	1,231,152	1,231,384	1,230,790
General Service (Industrial)													
5/8" Meter		-	-	5,794	5,733	5,710	6,182	6,022	5,929	5,841	5,765	5,699	5,633
> 5/8" Meter		-	-	84,172	77,354	78,617	78,490	79,307	79,307	79,307	79,495	79,813	80,083
Total General Service (Industrial)		-	-	89,966	83,087	84,327	84,671	85,329	85,236	85,148	85,260	85,512	85,716
General Service (Public Utilities)													
5/8" Meter		-	-	417	462	424	394	442	436	429	422	416	410
> 5/8" Meter		-	-	6,432	8,471	8,084	10,317	9,254	9,254	9,254	9,254	9,254	9,254
Total General Service (Public Utilities)		-	-	6,849	8,933	8,507	10,711	9,696	9,689	9,683	9,676	9,670	9,664
General Service (Excluding Senior Citizens)													
5/8" Meter		3,467,295	3,465,223	3,341,906	3,331,961	3,206,968	3,179,716	3,129,112	3,083,875	3,038,923	2,998,578	2,962,842	2,926,828
> 5/8" Meter		1,934,933	1,911,127	1,350,691	1,372,649	1,346,473	1,391,384	1,404,359	1,404,359	1,404,359	1,407,520	1,412,854	1,417,373
Total General Service (excluding SC)		5,402,228	5,376,351	4,692,597	4,704,610	4,553,441	4,571,100	4,533,471	4,488,234	4,443,281	4,406,098	4,375,696	4,344,201
General Service (Including Senior Citizens)													
5/8" Meter		3,572,695	3,573,551	3,448,148	3,441,950	3,316,800	3,295,572	3,242,297	3,195,445	3,148,877	3,106,918	3,069,567	3,031,937
> 5/8" Meter		1,934,970	1,911,159	1,350,747	1,372,722	1,346,521	1,391,412	1,404,392	1,404,392	1,404,392	1,407,553	1,412,887	1,417,406
Total General Service (including SC)		5,507,665	5,484,711	4,798,896	4,814,671	4,663,321	4,686,984	4,646,689	4,599,837	4,553,269	4,514,471	4,482,454	4,449,343

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		189,555	186,964	176,852	166,958	165,961	178,299	170,956	170,956	170,956	170,956	170,956	170,956
Charities & Schools		485,677	509,902	215,165	215,339	211,193	190,792	198,431	198,431	198,431	198,431	198,431	198,431
Hospital/University		-	-	270,845	261,881	262,322	272,720	291,116	291,116	291,116	291,116	291,116	291,116
Hand Bill		-	-	543,021	527,519	524,773	497,828	490,878	490,878	490,878	490,878	490,878	490,878
City Leased Properties		-	-	5,793	4,382	4,443	4,689	4,315	4,315	4,315	4,315	4,315	4,315
Scheduled		-	-	12	16	22	21	21	21	21	21	21	21
City		322,982	351,754	253,093	231,344	218,014	247,108	232,000	232,000	232,000	232,000	232,000	232,000
Fire Service		11,852	6,471	10,801	9,863	2,991	2,627	2,800	2,800	2,800	2,800	2,800	2,800
Sewer Only		86,957	62,142	32,453	57,061	76,652	42,663	42,663	42,663	42,663	42,663	42,663	42,663
Groundwater (Non-City)		-	-	-	-	-	248,776	190,000	190,000	190,000	190,000	190,000	190,000
City Groundwater		115,000	120,000	159,607	161,399	157,872	-	-	-	-	-	-	-
Total		6,719,688	6,721,944	6,466,536	6,450,432	6,287,563	6,372,505	6,269,869	6,223,017	6,176,449	6,137,651	6,105,634	6,072,524

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sewer - Billed Volume Per Account (Mcf/Account)													**Customer - 13**
Senior Citizens													
5/8" Meter		5.69	5.77	5.55	5.72	5.63	5.74	5.61	5.53	5.45	5.37	5.29	5.21
> 5/8" Meter		18.60	16.00	18.73	18.13	12.00	9.40	11.07	11.07	11.07	11.07	11.07	11.07
Total Senior Citizens		5.69	5.77	5.55	5.73	5.63	5.74	5.61	5.53	5.45	5.37	5.29	5.21
General Service (Residential)													
5/8" Meter		7.99	7.94	7.15	7.35	7.07	7.09	6.99	6.89	6.79	6.69	6.61	6.53
> 5/8" Meter		205.52	203.59	134.19	130.72	104.84	89.83	97.35	97.35	97.35	97.56	97.93	98.24
Total General Service (Residential)		12.18	12.06	8.00	8.21	7.89	7.89	7.86	7.76	7.66	7.57	7.50	7.42
General Service (Commercial)													
5/8" Meter		-	-	11.16	11.49	11.08	11.50	11.13	10.96	10.80	10.66	10.54	10.41
> 5/8" Meter		-	-	157.75	166.03	153.02	157.98	155.27	155.27	155.27	155.62	156.21	156.72
Total General Service (Commercial)		-	-	35.71	37.35	35.72	37.54	36.75	36.61	36.48	36.43	36.44	36.42
General Service (Industrial)													
5/8" Meter		-	-	10.97	10.74	11.04	11.36	11.07	10.90	10.74	10.60	10.48	10.36
> 5/8" Meter		-	-	155.30	163.54	148.33	159.21	160.87	160.87	160.87	161.25	161.89	162.44
Total General Service (Industrial)		-	-	84.08	82.51	80.54	81.65	82.28	82.19	82.11	82.22	82.46	82.66
General Service (Public Utilities)													
5/8" Meter		-	-	12.26	13.60	11.45	8.96	10.05	9.90	9.75	9.60	9.46	9.32
> 5/8" Meter		-	-	103.74	119.31	102.33	128.96	115.67	115.67	115.67	115.67	115.67	115.67
Total General Service (Public Utilities)		-	-	71.34	85.08	73.34	86.38	78.19	78.14	78.08	78.03	77.98	77.93
General Service (Excluding Senior Citizens)													
5/8" Meter		7.99	7.94	7.39	7.61	7.33	7.38	7.26	7.15	7.05	6.96	6.87	6.79
> 5/8" Meter		205.52	203.59	149.73	154.13	135.56	132.32	133.56	133.56	133.56	133.86	134.37	134.80
Total General Service (excluding SC)		12.18	12.06	10.18	10.54	10.17	10.35	10.27	10.16	10.06	9.98	9.91	9.84
General Service (Including Senior Citizens)													
5/8" Meter		7.89	7.85	7.32	7.53	7.25	7.30	7.18	7.08	6.98	6.88	6.80	6.72
> 5/8" Meter		205.48	203.55	149.68	154.07	135.51	132.29	133.52	133.52	133.52	133.82	134.33	134.76
Total General Service (including SC)													

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		31.08	30.59	29.16	28.28	28.34	30.95	29.67	29.67	29.67	29.67	29.67	29.67
Charities & Schools		155.44	165.18	81.66	83.05	81.04	76.32	79.37	79.37	79.37	79.37	79.37	79.37
Hospital/University		-	-	771.64	717.48	699.52	632.76	675.44	675.44	675.44	675.44	675.44	675.44
Hand Bill		-	-	2,003.77	2,127.09	2,066.03	2,015.50	1,987.36	1,987.36	1,987.36	1,987.36	1,987.36	1,987.36
City Leased Properties		-	-	101.62	91.28	108.36	117.23	107.88	107.88	107.88	107.88	107.88	107.88
Scheduled		-	-	5.75	7.80	11.00	10.35	10.70	10.70	10.70	10.70	10.70	10.70
City		410.27	396.57	271.56	277.06	262.67	286.67	269.14	269.14	269.14	269.14	269.14	269.14
Fire Service		223.63	101.11	121.36	116.03	36.93	35.49	37.84	37.84	37.84	37.84	37.84	37.84
Sewer Only		3,344.49	2,390.08	901.47	1,240.45	1,299.18	646.40	646.40	646.40	646.40	646.40	646.40	646.40
Groundwater (Non-City)		-	-	-	-	-	62,194.03	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00	47,500.00
City Groundwater		-	-	39,901.83	32,279.72	31,574.38	-	-	-	-	-	-	-
Total		14.23	14.15	13.18	13.56	13.17	13.51	13.29	13.19	13.09	13.01	12.94	12.87

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sewer - Existing Rates													**Customer - 14**
Actual Rate													
Service Charge ($/bill)													
5/8"		17.32	4.21	4.41	6.30	6.36	6.55	6.55	6.55	6.55	6.55	6.55	6.55
3/4"		84.55	14.90	15.21	7.72	7.81	8.04	8.04	8.04	8.04	8.04	8.04	8.04
1"		137.87	23.10	23.55	10.89	11.05	11.39	11.39	11.39	11.39	11.39	11.39	11.39
1 1/4"		207.02	33.68	34.30	14.92	15.16	15.64	15.64	15.64	15.64	15.64	15.64	15.64
1 1/2"		270.36	43.15	43.92	18.32	18.63	19.24	19.24	19.24	19.24	19.24	19.24	19.24
2"		430.32	67.77	68.92	27.86	28.35	29.31	29.31	29.31	29.31	29.31	29.31	29.31
3"		802.47	124.58	126.64	49.41	50.34	52.07	52.07	52.07	52.07	52.07	52.07	52.07
4"		1,341.03	209.66	213.19	84.67	86.21	89.15	89.15	89.15	89.15	89.15	89.15	89.15
6"		2,676.67	416.26	423.20	165.86	168.95	174.77	174.77	174.77	174.77	174.77	174.77	174.77
8"		4,276.22	662.36	673.29	261.21	266.14	275.38	275.38	275.38	275.38	275.38	275.38	275.38
10"		6,150.42	954.05	969.86	377.67	384.75	398.07	398.07	398.07	398.07	398.07	398.07	398.07
12"		11,455.30	1,759.12	1,787.53	678.16	691.38	715.77	715.77	715.77	715.77	715.77	715.77	715.77
14"		-	-	-	-	-	-	-	-	-	-	-	-
Volume Charge ($/Mcf)													
0 - 2 Mcf		20.51	21.30	22.14	24.74	26.19	28.07	28.07	28.07	28.07	28.07	28.07	28.07
2 - 100 Mcf		20.51	21.30	22.14	24.74	26.19	28.07	28.07	28.07	28.07	28.07	28.07	28.07
100 - 2,000 Mcf		20.51	21.30	22.14	24.74	26.19	28.07	28.07	28.07	28.07	28.07	28.07	28.07
Over 2,000 Mcf		20.51	21.30	22.14	24.74	26.19	28.07	28.07	28.07	28.07	28.07	28.07	28.07
Groundwater Volume Charge ($/Mcf)		8.59	8.79	8.98	9.66	10.13	10.76	10.76	10.76	10.76	10.76	10.76	10.76
Effective Rate													
Effective Months													
Service Charge		12.00	12.00	12.00	6.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Volume Charge		11.50	11.50	11.50	5.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Service Charge ($/bill)													
5/8"		17.32	4.21	4.41	5.36	6.36	6.55	6.55	6.55	6.55	6.55	6.55	6.55
3/4"		84.55	14.90	15.21	11.47	7.81	8.04	8.04	8.04	8.04	8.04	8.04	8.04
1"		137.87	23.10	23.55	17.22	11.05	11.39	11.39	11.39	11.39	11.39	11.39	11.39
1 1/4"		207.02	33.68	34.30	24.61	15.16	15.64	15.64	15.64	15.64	15.64	15.64	15.64
1 1/2"		270.36	43.15	43.92	31.12	18.63	19.24	19.24	19.24	19.24	19.24	19.24	19.24
2"		430.32	67.77	68.92	48.39	28.35	29.31	29.31	29.31	29.31	29.31	29.31	29.31
3"		802.47	124.58	126.64	88.03	50.34	52.07	52.07	52.07	52.07	52.07	52.07	52.07
4"		1,341.03	209.66	213.19	148.93	86.21	89.15	89.15	89.15	89.15	89.15	89.15	89.15
6"		2,676.67	416.26	423.20	294.53	168.95	174.77	174.77	174.77	174.77	174.77	174.77	174.77
8"		4,276.22	662.36	673.29	467.25	266.14	275.38	275.38	275.38	275.38	275.38	275.38	275.38
10"		6,150.42	954.05	969.86	673.77	384.75	398.07	398.07	398.07	398.07	398.07	398.07	398.07
12"		11,455.30	1,759.12	1,787.53	1,232.85	691.38	715.77	715.77	715.77	715.77	715.77	715.77	715.77
14"		-	-	-	-	-	-	-	-	-	-	-	-

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Volume Charge ($/Mcf)													
0 - 2 Mcf		20.51	21.27	22.11	23.33	26.13	27.99	28.07	28.07	28.07	28.07	28.07	28.07
2 - 100 Mcf		20.51	21.27	22.11	23.33	26.13	27.99	28.07	28.07	28.07	28.07	28.07	28.07
100 - 2,000 Mcf		20.51	21.27	22.11	23.33	26.13	27.99	28.07	28.07	28.07	28.07	28.07	28.07
Over 2,000 Mcf		20.51	21.27	22.11	23.33	26.13	27.99	28.07	28.07	28.07	28.07	28.07	28.07
Groundwater Volume Charge ($/Mcf)		8.59	8.78	8.97	9.29	10.11	10.73	10.76	10.76	10.76	10.76	10.76	10.76

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sewer - Calculated Billings (prior to adjustment factor)													**Customer - 15**
Senior Citizens													
5/8" Meter		4,510	2,440	2,521	2,851	3,269	3,621	3,572	3,538	3,504	3,470	3,436	3,402
> 5/8" Meter		4	1	2	2	1	1	1	1	1	1	1	1
Total Senior Citizens		4,514	2,441	2,523	2,853	3,270	3,622	3,573	3,539	3,505	3,471	3,437	3,403
General Service (Residential)													
5/8" Meter		161,353	95,751	89,363	96,606	106,796	111,531	110,626	109,492	108,358	107,337	106,430	105,523
> 5/8" Meter		68,241	45,226	9,949	9,783	10,238	10,691	11,548	11,548	11,548	11,572	11,613	11,647
Total General Service (Residential)		229,594	140,977	99,312	106,388	117,035	122,221	122,174	121,040	119,906	118,909	118,042	117,169
General Service (Commercial)													
5/8" Meter		-	-	8,259	9,073	10,206	11,130	10,866	10,733	10,608	10,498	10,404	10,303
> 5/8" Meter		-	-	23,587	24,228	25,297	28,524	28,140	28,140	28,140	28,199	28,300	28,385
Total General Service (Commercial)		-	-	31,846	33,300	35,503	39,654	39,006	38,873	38,748	38,698	38,704	38,688
General Service (Industrial)													
5/8" Meter		-	-	156	168	189	216	212	209	207	205	203	201
> 5/8" Meter		-	-	2,226	2,030	2,204	2,344	2,373	2,373	2,373	2,379	2,388	2,395
Total General Service (Industrial)		-	-	2,382	2,198	2,393	2,560	2,585	2,583	2,580	2,583	2,590	2,596
General Service (Public Utilities)													
5/8" Meter		-	-	11	13	14	14	16	16	16	15	15	15
> 5/8" Meter		-	-	217	258	250	332	303	303	303	303	303	303
Total General Service (Public Utilities)		-	-	228	271	264	346	319	318	318	318	318	318
General Service (Excluding Senior Citizens)													
5/8" Meter		161,353	95,751	97,788	105,860	117,205	122,891	121,719	120,449	119,188	118,055	117,052	116,041
> 5/8" Meter		68,241	45,226	35,979	36,298	37,990	41,891	42,364	42,364	42,364	42,453	42,603	42,730
Total General Service (excluding SC)		229,594	140,977	133,768	142,157	155,195	164,782	164,084	162,814	161,552	160,508	159,655	158,771
General Service (Including Senior Citizens)													
5/8" Meter		165,863	98,191	100,310	108,710	120,473	126,512	125,291	123,987	122,692	121,525	120,488	119,443
> 5/8" Meter		68,244	45,227	35,981	36,300	37,992	41,892	42,365	42,365	42,365	42,454	42,604	42,731
Total General Service (including SC)		234,107	143,417	136,291	145,010	158,465	168,404	167,657	166,353	165,057	163,979	163,092	162,174

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		6,462	4,313	4,263	4,224	4,633	5,262	5,079	5,079	5,079	5,079	5,079	5,079
Charities & Schools		17,651	9,731	4,955	4,750	4,750	4,611	4,783	4,783	4,783	4,783	4,783	4,783
Hospital/University		-	-	5,011	4,961	5,366	5,994	6,397	6,397	6,397	6,397	6,397	6,397
Hand Bill		-	-	12,576	12,674	13,929	14,153	13,997	13,997	13,997	13,997	13,997	13,997
City Leased Properties		-	-	179	133	132	147	137	137	137	137	137	137
Scheduled		-	-	0	0	1	1	1	1	1	1	1	1
City		12,732	8,560	6,748	6,124	6,122	7,374	6,969	6,969	6,969	6,969	6,969	6,969
Fire Service		243	138	239	230	78	74	79	79	79	79	79	79
Sewer Only		1,876	1,336	738	1,351	2,019	1,213	1,216	1,216	1,216	1,216	1,216	1,216
Groundwater (Non-City)		-	-	-	-	-	2,670	2,044	2,044	2,044	2,044	2,044	2,044
City Groundwater		988	1,054	1,432	1,500	1,596	-	-	-	-	-	-	-
Total		274,059	168,549	172,433	180,957	197,091	209,902	208,359	207,055	205,759	204,682	203,794	202,876

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sewer - Retail - Billings Under Existing Rates													**Customer - 16**
Senior Citizens													
5/8" Meter		4,510	2,440	2,521	2,851	3,269	3,621	3,544	3,510	3,476	3,442	3,409	3,375
> 5/8" Meter		4	1	2	2	1	1	1	1	1	1	1	1
Total Senior Citizens		4,514	2,441	2,523	2,853	3,270	3,622	3,545	3,511	3,477	3,443	3,410	3,376
General Service (Residential)													
5/8" Meter		161,353	95,751	89,363	96,606	106,796	111,531	109,747	108,622	107,497	106,485	105,585	104,685
> 5/8" Meter		68,241	45,226	9,949	9,783	10,238	10,691	11,456	11,456	11,456	11,480	11,520	11,554
Total General Service (Residential)		229,594	140,977	99,312	106,388	117,035	122,221	121,204	120,079	118,954	117,965	117,105	116,239
General Service (Commercial)													
5/8" Meter		-	-	8,259	9,073	10,206	11,130	10,780	10,648	10,524	10,415	10,322	10,221
> 5/8" Meter		-	-	23,587	24,228	25,297	28,524	27,917	27,917	27,917	27,976	28,075	28,160
Total General Service (Commercial)		-	-	31,846	33,300	35,503	39,654	38,696	38,564	38,440	38,391	38,397	38,380
General Service (Industrial)													
5/8" Meter		-	-	156	168	189	216	210	208	205	203	201	199
> 5/8" Meter		-	-	2,226	2,030	2,204	2,344	2,355	2,355	2,355	2,360	2,369	2,376
Total General Service (Industrial)		-	-	2,382	2,198	2,393	2,560	2,565	2,562	2,560	2,563	2,570	2,575
General Service (Public Utilities)													
5/8" Meter		-	-	11	13	14	14	16	16	15	15	15	15
> 5/8" Meter		-	-	217	258	250	332	300	300	300	300	300	300
Total General Service (Public Utilities)		-	-	228	271	264	346	316	316	316	316	315	315
General Service (Excluding Senior Citizens)													
5/8" Meter		161,353	95,751	97,788	105,860	117,205	122,891	120,753	119,493	118,241	117,118	116,123	115,120
> 5/8" Meter		68,241	45,226	35,979	36,298	37,990	41,891	42,028	42,028	42,028	42,116	42,265	42,390
Total General Service (excluding SC)		229,594	140,977	133,768	142,157	155,195	164,782	162,781	161,521	160,269	159,234	158,387	157,510
General Service (Including Senior Citizens)													
5/8" Meter		165,863	98,191	100,310	108,710	120,473	126,512	124,296	123,003	121,717	120,560	119,531	118,495
> 5/8" Meter		68,244	45,227	35,981	36,300	37,992	41,892	42,029	42,029	42,029	42,117	42,266	42,391
Total General Service (including SC)		234,107	143,417	136,291	145,010	158,465	168,404	166,325	165,032	163,746	162,677	161,797	160,886

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PHA		6,462	4,313	4,263	4,224	4,633	5,262	5,039	5,039	5,039	5,039	5,039	5,039
Charities & Schools		17,651	9,731	4,955	4,750	4,750	4,611	4,746	4,746	4,746	4,746	4,746	4,746
Hospital/University		-	-	5,011	4,961	5,366	5,994	6,346	6,346	6,346	6,346	6,346	6,346
Hand Bill		-	-	12,576	12,674	13,929	14,153	13,886	13,886	13,886	13,886	13,886	13,886
City Leased Properties		-	-	179	133	132	147	136	136	136	136	136	136
Scheduled		-	-	0	0	1	1	1	1	1	1	1	1
City		12,732	8,560	6,748	6,124	6,122	5,787	6,914	6,914	6,914	6,914	6,914	6,914
Fire Service		243	138	239	230	78	74	78	78	78	78	78	78
Sewer Only		1,876	1,336	738	1,351	2,019	1,213	1,207	1,207	1,207	1,207	1,207	1,207
Groundwater (non-City)		-	-	-	-	-	2,670	2,028	2,028	2,028	2,028	2,028	2,028
City Groundwater		988	1,054	1,432	1,500	1,596	-	-	-	-	-	-	-
Total		274,059	168,549	172,433	180,957	197,091	208,315	206,706	205,412	204,127	203,057	202,177	201,266
Total Excluding City & Fire		260,097	158,797	164,014	173,103	189,294	202,455	199,714	198,420	197,135	196,065	195,185	194,274

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sewer - Retail - Collections													**Customer - 17**
Total General Service Billings Excluding City & Fire		260,097	158,797	164,014	173,103	189,294	202,455	199,714	198,420	197,135	196,065	195,185	194,274
Collection Factors													
Current Year		85.20%	80.60%	83.40%	83.30%	84.80%	84.80%	84.30%	84.30%	84.30%	84.30%	84.30%	84.30%
First Year Prior		9.28%	9.28%	8.93%	10.05%	10.20%	10.25%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Second Year Prior		2.00%	2.00%	2.00%	2.00%	2.35%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Collections		Actual	Actual	Actual	Actual	Actual	Calculated						
General Service		271,259	182,584	170,514	179,320	195,038	194,546	192,390	191,289	190,021	188,965	188,090	187,213
City		15,811	11,615	14,563	7,624	7,718	5,787	6,914	6,914	6,914	6,914	6,914	6,914
Fire Protection		283	159	267	214	100	74	78	78	78	78	78	78
Total		287,353	194,358	185,345	187,158	202,857	200,407	199,382	198,281	197,013	195,957	195,082	194,205
General Service Calculated		261,704	161,998	150,923	163,854	182,033	194,546	192,390	191,289	190,021	188,965	174,942	187,213
Actual		271,259	182,584	170,514	179,320	195,038	208,551						
Ratio		96.5%	88.7%	88.5%	91.4%	93.3%	93.3%						
Collections - Detail													
Senior Citizens							3,464	3,416	3,387	3,353	3,321	3,288	3,256
General Service (Residential)							117,768	116,738	115,791	114,710	113,741	112,895	112,059
General Service (Commercial)							37,932	37,296	37,172	37,035	36,979	36,977	36,962
General Service (Industrial)							2,460	2,466	2,467	2,465	2,468	2,474	2,479
General Service (Public Utilities)							326	306	305	304	304	304	304
PHA							5,021	4,867	4,857	4,853	4,853	4,853	4,853
Charities & Schools							4,492	4,557	4,567	4,570	4,570	4,570	4,570
Hospital/University							5,732	6,057	6,104	6,111	6,111	6,111	6,111
Hand Bill							13,683	13,400	13,378	13,372	13,372	13,372	13,372
City Leased Properties							141	132	131	131	131	131	131
Scheduled							1	1	1	1	1	1	1
City							5,787	6,914	6,914	6,914	6,914	6,914	6,914
Fire Service							74	78	78	78	78	78	78
Sewer Only							1,263	1,179	1,162	1,162	1,162	1,162	1,162
Groundwater (non-City)							2,264	1,977	1,966	1,953	1,953	1,953	1,953
City Groundwater							-	-	-	-	-	-	-
Total		-	-	-	-	-	200,407	199,382	198,281	197,013	195,957	195,082	194,205

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sewer - Surcharge													**Customer - 18**
Surcharge Accounts		194	236	246	217	204	198	198	198	198	198	198	198
Account Growth		7	42	10	(29)	(13)	-	-	-	-	-	-	-
Billed lbs													
BOD		12,551,284	12,938,213	13,037,238	14,992,079	14,102,589	12,688,000	12,688,000	12,688,000	12,688,000	12,688,000	12,688,000	12,688,000
SS		2,976,914	3,123,529	2,834,636	3,691,430	2,030,223	2,577,250	2,577,250	2,577,250	2,577,250	2,577,250	2,577,250	2,577,250
lbs per Account													
BOD		64,697	54,823	52,997	69,088	69,130	64,000	64,000	64,000	64,000	64,000	64,000	64,000
SS		15,345	13,235	11,523	17,011	9,952	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Rate ($/lb)													
BOD		0.300	0.313	0.322	0.310	0.327	0.350	0.350	0.350	0.350	0.350	0.350	0.350
SS		0.305	0.315	0.310	0.292	0.310	0.332	0.332	0.332	0.332	0.332	0.332	0.332
Surcharge Revenue													
BOD		3,761	4,055	4,197	4,648	4,612	4,441	4,441	4,441	4,441	4,441	4,441	4,441
SS		908	983	880	1,078	629	856	856	856	856	856	856	856
Total		4,669	5,038	5,077	5,726	5,241	5,297	5,297	5,297	5,297	5,297	5,297	5,297
Actual - Input		4,576	5,481	5,110	5,656	4,252	3,407	4,000	4,000	4,000	4,000	4,000	4,000

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sewer - Wholesale													**Customer - 19**
Abington													
Rates													
Volume ($/Mcf)		1.4843	1.5893	1.7154	1.3415	1.4676	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)		7,348	7,638	8,007	8,712	9,378	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)		185.5215	194.1554	204.1477	160.6960	176.9354	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307
BOD ($/1,000 lbs.)		188.3766	201.1572	217.9484	176.7907	192.5663	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057
Annual Lump Sum ($)		498,000	498,000	498,000	503,000	503,000	503,000	527,000	527,000	527,000	527,000	527,000	527,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		117,245	98,059	114,622	97,815	102,068	100,091	100,000	100,000	100,000	100,000	100,000	100,000
Capacity (cfs)		9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247	9.247
SS (1,000 lbs.)		1,341	1,122	1,311	1,119	1,167	1,068	1,100	1,100	1,100	1,100	1,100	1,100
BOD (1,000 lbs.)		1,134	951	1,109	949	989	1,295	1,100	1,100	1,100	1,100	1,100	1,100
Billings													
Volume		174,026	155,845	196,623	131,219	149,794	153,989	153,850	153,850	153,850	153,850	153,850	153,850
Capacity		67,947	70,629	74,041	80,560	86,718	88,688	88,688	88,688	88,688	88,688	88,688	88,688
SS		248,702	217,748	267,560	179,774	206,535	198,964	204,964	204,964	204,964	204,964	204,964	204,964
BOD		213,666	191,323	241,752	167,735	190,519	260,357	221,216	221,216	221,216	221,216	221,216	221,216
Lump Sum		498,000	498,000	498,000	503,000	503,000	503,000	527,000	527,000	527,000	527,000	527,000	527,000
Management Fee		120,234	113,354	127,798	106,229	113,657	120,500	119,572	119,572	119,572	119,572	119,572	119,572
Total		1,322,575	1,246,899	1,405,774	1,168,516	1,250,224	1,325,499	1,315,290	1,315,290	1,315,290	1,315,290	1,315,290	1,315,290
Bensalem													
Rates													
Volume ($/Mcf)		1.4843	1.5893	1.7154	1.3415	1.4676	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)		7,348	7,638	8,007	8,712	9,378	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)		185.5215	194.1554	204.1477	160.6960	176.9354	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307
BOD ($/1,000 lbs.)		188.3766	201.1572	217.9484	176.7907	192.5663	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057
Annual Lump Sum ($)		321,655	85,000	85,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000
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)		196,088	159,115	178,606	170,990	180,864	171,935	175,000	175,000	175,000	175,000	175,000	175,000
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.)		2,237	2,056	2,212	2,316	2,204	2,189	2,240	2,240	2,240	2,240	2,240	2,240
BOD (1,000 lbs.)		2,287	2,248	2,263	2,218	2,525	2,697	2,480	2,480	2,480	2,480	2,480	2,480

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Billings													
Volume		291,053	252,881	306,380	229,383	265,436	264,521	269,238	269,238	269,238	269,238	269,238	269,238
Capacity		86,266	89,670	94,002	102,279	110,098	112,598	112,598	112,598	112,598	112,598	112,598	112,598
SS		415,103	399,239	451,543	372,098	389,985	407,878	417,381	417,381	417,381	417,381	417,381	417,381
BOD		430,746	452,189	493,171	392,054	486,157	542,362	498,742	498,742	498,742	498,742	498,742	498,742
Lump Sum		321,655	85,000	85,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000	93,000
Management Fee		154,482	127,898	143,010	118,881	134,468	142,036	139,096	139,096	139,096	139,096	139,096	139,096
Total		1,699,304	1,406,877	1,573,106	1,307,695	1,479,143	1,562,395	1,530,055	1,530,055	1,530,055	1,530,055	1,530,055	1,530,055
Bucks County													
Rates													
Volume ($/Mcf)		1.4843	1.5893	1.7154	1.3415	1.4676	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)		7,348	7,638	8,007	8,712	9,378	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)		185.5215	194.1554	204.1477	160.6960	176.9354	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307
BOD ($/1,000 lbs.)		188.3766	201.1572	217.9484	176.7907	192.5663	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057
Annual Lump Sum ($)		1,138,146	66,000	66,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		1,027,076	839,183	953,586	815,278	945,440	846,849	870,000	870,000	870,000	870,000	870,000	870,000
Capacity (cfs)		85.080	85.080	85.080	85.080	85.080	85.080	85.080	85.080	85.080	85.080	85.080	85.080
SS (1,000 lbs.)		9,974	8,080	7,255	7,640	9,887	11,614	9,700	9,700	9,700	9,700	9,700	9,700
BOD (1,000 lbs.)		8,715	8,335	7,921	9,024	9,067	10,732	9,600	9,600	9,600	9,600	9,600	9,600
Billings													
Volume		1,524,489	1,333,714	1,635,781	1,093,696	1,387,528	1,302,877	1,338,495	1,338,495	1,338,495	1,338,495	1,338,495	1,338,495
Capacity		625,168	649,841	681,236	741,217	797,880	816,002	816,002	816,002	816,002	816,002	816,002	816,002
SS		1,850,432	1,568,859	1,481,030	1,227,774	1,749,438	2,164,110	1,807,408	1,807,408	1,807,408	1,807,408	1,807,408	1,807,408
BOD		1,641,770	1,676,571	1,726,376	1,595,306	1,746,010	2,158,341	1,930,615	1,930,615	1,930,615	1,930,615	1,930,615	1,930,615
Lump Sum		1,138,146	66,000	66,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000
Management Fee		678,001	529,498	559,042	484,299	586,586	662,633	607,752	607,752	607,752	607,752	607,752	607,752
Total		7,458,006	5,824,483	6,149,465	5,327,292	6,452,442	7,288,963	6,685,272	6,685,272	6,685,272	6,685,272	6,685,272	6,685,272
Cheltenham													
Rates													
Volume ($/Mcf)		1.4200	1.5173	1.6314	1.2610	1.3815	1.4478	1.4478	1.4478	1.4478	1.4478	1.4478	1.4478
Capacity ($/cfs)		3,686	3,816	3,983	4,513	4,870	4,993	4,993	4,993	4,993	4,993	4,993	4,993
SS ($/1,000 lbs.)		185.5215	194.1554	204.1477	160.6960	176.9354	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307
BOD ($/1,000 lbs.)		188.3766	201.1572	217.9484	176.7907	192.5663	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057
Annual Lump Sum ($)		1,098,000	1,098,000	1,098,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000
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%

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Billing Units													
Volume (Mcf)		475,447	422,060	522,135	411,325	281,173	356,825	350,000	350,000	350,000	350,000	350,000	350,000
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.)		4,083	3,596	4,461	3,600	2,522	3,135	3,100	3,100	3,100	3,100	3,100	3,100
BOD (1,000 lbs.)		3,556	3,139	3,887	3,121	2,182	2,726	2,700	2,700	2,700	2,700	2,700	2,700
Billings													
Volume		675,134	640,392	851,811	518,681	388,441	516,612	506,730	506,730	506,730	506,730	506,730	506,730
Capacity		76,485	79,182	82,647	93,645	101,053	103,605	103,605	103,605	103,605	103,605	103,605	103,605
SS		757,516	698,227	910,657	578,476	446,223	584,232	577,625	577,625	577,625	577,625	577,625	577,625
BOD		669,893	631,527	847,268	551,794	420,206	548,260	542,985	542,985	542,985	542,985	542,985	542,985
Lump Sum		1,098,000	1,098,000	1,098,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000	1,119,000
Management Fee		393,243	377,679	454,846	343,391	296,991	344,605	341,993	341,993	341,993	341,993	341,993	341,993
Total		3,670,272	3,525,008	4,245,229	3,204,987	2,771,914	3,216,315	3,191,939	3,191,939	3,191,939	3,191,939	3,191,939	3,191,939
Lower Moreland													
Rates													
Volume ($/Mcf)		1.4843	1.5893	1.7154	1.3415	1.4676	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)		7,348	7,638	8,007	8,712	9,378	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)		185.5215	194.1554	204.1477	160.6960	176.9354	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307
BOD ($/1,000 lbs.)		188.3766	201.1572	217.9484	176.7907	192.5663	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057
Annual Lump Sum ($)		261,000	261,000	261,000	286,000	286,000	286,000	301,000	301,000	301,000	301,000	301,000	301,000
Management Fee (%)		12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		68,796	58,379	65,732	53,690	63,271	57,771	58,200	58,200	58,200	58,200	58,200	58,200
Capacity (cfs)		5.941	5.941	5.941	5.941	5.941	5.941	5.941	5.941	5.941	5.941	5.941	5.941
SS (1,000 lbs.)		704	598	670	548	647	593	600	600	600	600	600	600
BOD (1,000 lbs.)		530	450	504	412	486	447	450	450	450	450	450	450
Billings													
Volume		102,114	92,782	112,757	72,025	92,856	88,881	89,541	89,541	89,541	89,541	89,541	89,541
Capacity		43,654	45,377	47,570	51,758	55,715	56,980	56,980	56,980	56,980	56,980	56,980	56,980
SS		130,683	116,069	136,807	87,987	114,412	110,585	111,798	111,798	111,798	111,798	111,798	111,798
BOD		99,858	90,499	109,841	72,802	93,680	89,864	90,498	90,498	90,498	90,498	90,498	90,498
Lump Sum		261,000	261,000	261,000	286,000	286,000	286,000	301,000	301,000	301,000	301,000	301,000	301,000
Management Fee		76,477	72,687	80,157	68,469	77,120	75,877	77,978	77,978	77,978	77,978	77,978	77,978
Total		713,787	678,415	748,130	639,040	719,783	708,188	727,795	727,795	727,795	727,795	727,795	727,795
Lower Southampton													
Rates													
Volume ($/Mcf)		1.4843	1.5893	1.7154	1.3415	1.4676	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385	1.5385
Capacity ($/cfs)		7,348	7,638	8,007	8,712	9,378	9,591	9,591	9,591	9,591	9,591	9,591	9,591
SS ($/1,000 lbs.)		185.5215	194.1554	204.1477	160.6960	176.9354	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307	186.3307
BOD ($/1,000 lbs.)		188.3766	201.1572	217.9484	176.7907	192.5663	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057	201.1057
Annual Lump Sum ($)		64,000	64,000	64,000	1,150,000	1,254,000	1,357,000	1,397,000	1,397,000	1,397,000	1,397,000	1,397,000	1,397,000
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%

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Billing Units													
Volume (Mcf)		325,571	254,243	249,789	244,778	310,188	255,403	270,000	270,000	270,000	270,000	270,000	270,000
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.)		3,286	2,566	2,878	4,991	2,436	2,427	2,700	2,700	2,700	2,700	2,700	2,700
BOD (1,000 lbs.)		2,551	2,044	1,905	3,293	2,223	2,139	2,100	2,100	2,100	2,100	2,100	2,100
Billings													
Volume		483,245	404,069	428,489	328,370	455,233	392,938	415,395	415,395	415,395	415,395	415,395	415,395
Capacity		116,025	120,604	126,431	137,562	148,079	151,442	151,442	151,442	151,442	151,442	151,442	151,442
SS		609,588	498,292	587,623	801,998	431,016	452,143	503,093	503,093	503,093	503,093	503,093	503,093
BOD		480,488	411,159	415,168	582,239	428,071	430,155	422,322	422,322	422,322	422,322	422,322	422,322
Lump Sum		64,000	64,000	64,000	1,150,000	1,254,000	1,357,000	1,397,000	1,397,000	1,397,000	1,397,000	1,397,000	1,397,000
Management Fee		175,335	149,812	162,171	300,017	271,640	278,368	288,925	288,925	288,925	288,925	288,925	288,925
Total		1,928,681	1,647,936	1,783,881	3,300,187	2,988,039	3,062,045	3,178,177	3,178,177	3,178,177	3,178,177	3,178,177	3,178,177
DELCORA													
Rates													
Volume ($/Mcf)		1.5704	1.6373	1.2821	1.1331	1.2245	1.2626	1.2626	1.2626	1.2626	1.2626	1.2626	1.2626
Capacity ($/cfs)		6,426	6,660	5,635	4,907	5,262	5,365	5,365	5,365	5,365	5,365	5,365	5,365
SS ($/1,000 lbs.)		209.8048	219.4079	214.6076	155.8293	171.2878	179.7959	179.7959	179.7959	179.7959	179.7959	179.7959	179.7959
BOD ($/1,000 lbs.)		194.7073	208.4314	203.8065	174.4212	189.5825	199.1219	199.1219	199.1219	199.1219	199.1219	199.1219	199.1219
Annual Lump Sum ($)		-	-	-	43,000	43,000	43,000	437,000	437,000	437,000	437,000	437,000	437,000
Management Fee (%)		10.00%	10.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Billing Units													
Volume (Mcf)		1,471,380	1,212,631	1,364,247	1,113,594	1,292,169	1,110,372	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.)		13,455	13,717	13,788	12,443	14,026	12,729	13,100	13,100	13,100	13,100	13,100	13,100
BOD (1,000 lbs.)		11,274	11,756	11,371	10,302	11,783	11,305	11,100	11,100	11,100	11,100	11,100	11,100
Billings													
Volume		2,310,656	1,985,441	1,749,102	1,261,814	1,582,261	1,401,956	1,515,120	1,515,120	1,515,120	1,515,120	1,515,120	1,515,120
Capacity		996,030	1,032,300	873,425	760,585	815,610	831,575	831,575	831,575	831,575	831,575	831,575	831,575
SS		2,822,905	3,009,713	2,958,956	1,938,998	2,402,416	2,288,545	2,355,326	2,355,326	2,355,326	2,355,326	2,355,326	2,355,326
BOD		2,195,224	2,450,238	2,317,524	1,796,884	2,233,934	2,250,974	2,210,253	2,210,253	2,210,253	2,210,253	2,210,253	2,210,253
Lump Sum		-	-	-	43,000	43,000	43,000	437,000	437,000	437,000	437,000	437,000	437,000
Management Fee		832,481	847,769	947,881	696,154	849,266	817,926	881,913	881,913	881,913	881,913	881,913	881,913
Total		9,157,295	9,325,461	8,846,888	6,497,434	7,926,487	7,633,975	8,231,187	8,231,187	8,231,187	8,231,187	8,231,187	8,231,187

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Lower Merion													
Rates													
Volume ($/Mcf)		1.1679	1.2369	1.3238	1.1690	1.2633	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026
Capacity ($/cfs)		5,182	5,422	5,731	5,018	5,382	5,487	5,487	5,487	5,487	5,487	5,487	5,487
SS ($/1,000 lbs.)		197.2836	207.0710	218.7260	158.5951	174.3280	182.9871	182.9871	182.9871	182.9871	182.9871	182.9871	182.9871
BOD ($/1,000 lbs.)		172.2624	186.0610	204.9121	175.3211	190.5606	200.1492	200.1492	200.1492	200.1492	200.1492	200.1492	200.1492
Annual Lump Sum ($)		112,000	112,000	112,000	126,000	127,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		383,546	359,629	377,929	349,400	366,882	357,220	360,000	360,000	360,000	360,000	360,000	360,000
Capacity (cfs)		31.570	31.570	31.570	31.570	31.570	31.570	31.570	31.570	31.570	31.570	31.570	31.570
SS (1,000 lbs.)		3,988	3,742	3,944	3,653	3,830	3,718	3,700	3,700	3,700	3,700	3,700	3,700
BOD (1,000 lbs.)		3,433	3,234	3,416	3,172	3,310	3,208	3,200	3,200	3,200	3,200	3,200	3,200
Billings													
Volume		447,944	444,825	500,303	408,449	463,482	465,315	468,936	468,936	468,936	468,936	468,936	468,936
Capacity		163,596	171,173	180,928	158,418	169,910	173,225	173,225	173,225	173,225	173,225	173,225	173,225
SS		786,759	774,807	862,615	579,377	667,693	680,408	677,052	677,052	677,052	677,052	677,052	677,052
BOD		591,350	601,779	699,895	556,141	630,738	642,123	640,477	640,477	640,477	640,477	640,477	640,477
Lump Sum		112,000	112,000	112,000	126,000	127,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000
Management Fee		210,165	210,458	235,574	182,839	205,882	208,707	208,569	208,569	208,569	208,569	208,569	208,569
Total		2,311,813	2,315,042	2,591,314	2,011,224	2,264,706	2,295,777	2,294,259	2,294,259	2,294,259	2,294,259	2,294,259	2,294,259
Springfield (less Wyndmoor)													
Rates													
Volume ($/Mcf)		1.4478	1.5259	1.6213	1.4749	1.5786	1.6272	1.6272	1.6272	1.6272	1.6272	1.6272	1.6272
Capacity ($/cfs)		9,428	9,852	10,354	10,146	10,870	11,135	11,135	11,135	11,135	11,135	11,135	11,135
SS ($/1,000 lbs.)		197.2836	207.0710	218.7260	158.5951	174.3280	182.9871	182.9871	182.9871	182.9871	182.9871	182.9871	182.9871
BOD ($/1,000 lbs.)		172.2624	186.0610	204.9121	175.3211	190.5606	200.1492	200.1492	200.1492	200.1492	200.1492	200.1492	200.1492
Annual Lump Sum ($)		294,000	294,000	294,000	388,000	389,000	389,000	389,000	389,000	389,000	389,000	389,000	389,000
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)		187,034	152,066	195,918	148,680	176,441	142,622	160,000	160,000	160,000	160,000	160,000	160,000
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.)		2,818	1,776	2,093	1,527	1,727	1,845	1,700	1,700	1,700	1,700	1,700	1,700
BOD (1,000 lbs.)		2,464	1,382	1,556	2,050	1,757	1,598	1,800	1,800	1,800	1,800	1,800	1,800
Billings													
Volume		270,788	232,038	317,642	219,288	278,529	232,075	260,352	260,352	260,352	260,352	260,352	260,352
Capacity		43,369	45,319	47,628	46,672	50,002	51,221	51,221	51,221	51,221	51,221	51,221	51,221
SS		555,938	367,788	457,701	242,211	301,073	337,642	311,078	311,078	311,078	311,078	311,078	311,078
BOD		424,513	257,224	318,832	359,368	334,882	319,760	360,269	360,269	360,269	360,269	360,269	360,269
Lump Sum		294,000	294,000	294,000	388,000	389,000	389,000	389,000	389,000	389,000	389,000	389,000	389,000
Management Fee		190,633	143,564	172,296	150,665	162,418	159,564	164,630	164,630	164,630	164,630	164,630	164,630
Total		1,779,240	1,339,933	1,608,098	1,406,204	1,515,904	1,489,263	1,536,550	1,536,550	1,536,550	1,536,550	1,536,550	1,536,550

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Upper Darby													
Rates													
Volume ($/Mcf)		1.1679	1.2369	1.3238	1.1690	1.2633	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026	1.3026
Capacity ($/cfs)		5,182	5,422	5,731	5,018	5,382	5,487	5,487	5,487	5,487	5,487	5,487	5,487
SS ($/1,000 lbs.)		197.2836	207.0710	218.7260	158.5951	174.3280	182.9871	182.9871	182.9871	182.9871	182.9871	182.9871	182.9871
BOD ($/1,000 lbs.)		172.2624	186.0610	204.9121	175.3211	190.5606	200.1492	200.1492	200.1492	200.1492	200.1492	200.1492	200.1492
Annual Lump Sum ($)		37,000	37,000	37,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000
Management Fee (%)		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Billing Units													
Volume (Mcf)		571,000	464,000	512,225	437,580	509,725	463,520	470,000	470,000	470,000	470,000	470,000	470,000
Capacity (cfs)		35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
SS (1,000 lbs.)		5,557	4,516	4,985	4,259	4,961	4,511	4,600	4,600	4,600	4,600	4,600	4,600
BOD (1,000 lbs.)		4,738	3,850	4,250	3,631	4,229	3,846	4,000	4,000	4,000	4,000	4,000	4,000
Billings													
Volume		666,871	573,922	678,084	511,531	643,936	603,781	612,222	612,222	612,222	612,222	612,222	612,222
Capacity		181,370	189,770	200,585	175,630	188,370	192,045	192,045	192,045	192,045	192,045	192,045	192,045
SS		1,096,305	935,133	1,090,395	675,414	864,818	825,491	841,741	841,741	841,741	841,741	841,741	841,741
BOD		816,179	716,335	870,919	636,563	805,969	769,788	800,597	800,597	800,597	800,597	800,597	800,597
Lump Sum		37,000	37,000	37,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000	43,000
Management Fee		279,773	245,216	287,698	204,214	254,609	243,411	248,960	248,960	248,960	248,960	248,960	248,960
Total		3,077,498	2,697,375	3,164,681	2,246,351	2,800,702	2,677,516	2,738,565	2,738,565	2,738,565	2,738,565	2,738,565	2,738,565
Springfield (Wyndmoor)													
Rates													
Volume ($/Mcf)		1.7096	1.8250	1.9723	1.7579	1.8977	1.9608	1.9608	1.9608	1.9608	1.9608	1.9608	1.9608
Capacity ($/cfs)		10,028	10,489	11,103	11,938	12,748	12,951	12,951	12,951	12,951	12,951	12,951	12,951
SS ($/1,000 lbs.)		256.9935	269.4468	284.3272	229.6040	250.9098	261.4507	261.4507	261.4507	261.4507	261.4507	261.4507	261.4507
BOD ($/1,000 lbs.)		115.9064	123.6152	133.7348	118.1136	128.1883	133.4719	133.4719	133.4719	133.4719	133.4719	133.4719	133.4719
Annual Lump Sum ($)		120,000	120,000	120,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000
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)		24,335	19,828	22,707	18,475	19,785	18,388	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.)		132	112	125	106	112	160	130	130	130	130	130	130
BOD (1,000 lbs.)		105	89	99	85	89	122	100	100	100	100	100	100

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Billings													
Volume		41,603	36,186	44,785	32,477	37,546	36,055	37,255	37,255	37,255	37,255	37,255	37,255
Capacity		19,354	20,244	21,429	23,040	24,604	24,995	24,995	24,995	24,995	24,995	24,995	24,995
SS		33,848	30,185	35,426	24,365	28,061	41,814	33,989	33,989	33,989	33,989	33,989	33,989
BOD		12,155	11,052	13,278	10,012	11,442	16,273	13,347	13,347	13,347	13,347	13,347	13,347
Lump Sum		120,000	120,000	120,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000
Management Fee		27,235	26,120	28,190	27,347	28,758	30,856	29,710	29,710	29,710	29,710	29,710	29,710
Total		254,196	243,786	263,108	255,242	268,410	287,993	277,297	277,297	277,297	277,297	277,297	277,297
Billed Volume Summary (Mcf)													
Abington		117,245	98,059	114,622	97,815	102,068	100,091	100,000	100,000	100,000	100,000	100,000	100,000
Bensalem		196,088	159,115	178,606	170,990	180,864	171,935	175,000	175,000	175,000	175,000	175,000	175,000
Bucks County		1,027,076	839,183	953,586	815,278	945,440	846,849	870,000	870,000	870,000	870,000	870,000	870,000
Cheltenham		475,447	422,060	522,135	411,325	281,173	356,825	350,000	350,000	350,000	350,000	350,000	350,000
Lower Moreland		68,796	58,379	65,732	53,690	63,271	57,771	58,200	58,200	58,200	58,200	58,200	58,200
Lower Southampton		325,571	254,243	249,789	244,778	310,188	255,403	270,000	270,000	270,000	270,000	270,000	270,000
DELCORA		1,471,380	1,212,631	1,364,247	1,113,594	1,292,169	1,110,372	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Lower Merion		383,546	359,629	377,929	349,400	366,882	357,220	360,000	360,000	360,000	360,000	360,000	360,000
Springfield (less Wyndmoor)		187,034	152,066	195,918	148,680	176,441	142,622	160,000	160,000	160,000	160,000	160,000	160,000
Upper Darby		571,000	464,000	512,225	437,580	509,725	463,520	470,000	470,000	470,000	470,000	470,000	470,000
Springfield (Wyndmoor)		24,335	19,828	22,707	18,475	19,785	18,388	19,000	19,000	19,000	19,000	19,000	19,000
Total		4,847,517	4,039,194	4,557,496	3,861,607	4,248,005	3,880,996	4,032,200	4,032,200	4,032,200	4,032,200	4,032,200	4,032,200
By WPCP													
NE WPCP		2,210,222	1,831,040	2,084,470	1,793,877	1,883,004	1,788,874	1,823,200	1,823,200	1,823,200	1,823,200	1,823,200	1,823,200
SW WPCP		2,612,961	2,188,326	2,450,319	2,049,255	2,345,217	2,073,734	2,190,000	2,190,000	2,190,000	2,190,000	2,190,000	2,190,000
SE WPCP		24,335	19,828	22,707	18,475	19,785	18,388	19,000	19,000	19,000	19,000	19,000	19,000
Billings Summary													
Abington		1,339,683	1,220,131	1,433,486	1,175,552	1,079,428	1,325,499	1,315,290	1,315,290	1,315,290	1,315,290	1,315,290	1,315,290
Bensalem		1,554,095	1,447,024	1,797,944	1,722,599	1,560,644	1,562,395	1,530,055	1,530,055	1,530,055	1,530,055	1,530,055	1,530,055
Bucks County		7,295,679	7,032,982	7,820,704	6,447,843	6,795,793	7,288,963	6,685,272	6,685,272	6,685,272	6,685,272	6,685,272	6,685,272
Cheltenham		3,239,440	3,206,008	4,278,091	3,257,491	2,878,829	3,216,315	3,191,939	3,191,939	3,191,939	3,191,939	3,191,939	3,191,939
Lower Moreland		736,917	700,356	797,524	654,973	728,027	708,188	727,795	727,795	727,795	727,795	727,795	727,795
Lower Southampton		2,117,190	2,679,088	2,200,955	2,909,042	2,868,592	3,062,045	3,178,177	3,178,177	3,178,177	3,178,177	3,178,177	3,178,177
DELCORA		8,789,736	8,857,559	8,440,530	6,712,457	7,680,973	7,633,975	8,231,187	8,231,187	8,231,187	8,231,187	8,231,187	8,231,187
Lower Merion		2,816,586	2,376,781	2,804,665	2,390,651	2,594,719	2,295,777	2,294,259	2,294,259	2,294,259	2,294,259	2,294,259	2,294,259
Springfield (less Wyndmoor)		2,538,979	1,466,265	1,685,156	1,467,661	2,051,437	1,489,263	1,536,550	1,536,550	1,536,550	1,536,550	1,536,550	1,536,550
Upper Darby		3,389,507	2,726,033	3,451,100	2,316,463	3,059,522	2,677,516	2,738,565	2,738,565	2,738,565	2,738,565	2,738,565	2,738,565
Springfield (Wyndmoor)		251,619	238,807	232,623	248,596	261,047	287,993	277,297	277,297	277,297	277,297	277,297	277,297
Total		34,069,431	31,951,036	34,942,778	29,303,329	31,559,011	31,547,929	31,706,385	31,706,385	31,706,385	31,706,385	31,706,385	31,706,385
							33,221,384						
Actual		32,214,000	31,951,036	34,942,778	29,424,335	31,641,656	33,221,384	-	-				

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Wholesale Billing Summary By WPCP													
NE WPCP		16,283,005	16,285,590	18,328,704	16,167,500	15,911,313	17,163,405	16,628,527	16,628,527	16,628,527	16,628,527	16,628,527	16,628,527
SW WPCP		17,534,807	15,426,638	16,381,452	12,887,232	15,386,651	14,096,530	14,800,562	14,800,562	14,800,562	14,800,562	14,800,562	14,800,562
SE WPCP		251,619	238,807	232,623	248,596	261,047	287,993	277,297	277,297	277,297	277,297	277,297	277,297

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Sanitary and Stomwater Sewer - Revenue Summary													**Customer - 20**
					Sanitary Sewer General Service and SW Using Calculated Values								
Sanitary Sewer Collections													
General Service		271,259	182,584	170,514	163,854	182,033	194,546	192,390	191,289	190,021	188,965	188,090	187,213
City		15,811	11,615	14,563	7,624	7,718	5,787	6,914	6,914	6,914	6,914	6,914	6,914
Fire		283	159	267	214	100	74	78	78	78	78	78	78
Surcharge		4,576	5,481	5,110	5,656	4,252	3,407	4,000	4,000	4,000	4,000	4,000	4,000
Wholesale		32,214	31,951	34,943	29,424	31,642	33,221	31,706	31,706	31,706	31,706	31,706	31,706
Subtotal		324,143	231,790	225,397	206,773	225,744	237,036	235,088	233,987	232,719	231,663	230,789	229,911
Stormwater Collections													
Non-City		-	103,264	123,427	125,805	135,702	142,438	142,089	141,302	140,272	139,176	138,069	136,954
City		-	4,545	8,409	8,867	10,471	11,178	10,925	10,802	10,678	10,546	10,413	10,279
Subtotal		-	107,809	131,836	134,671	146,174	153,615	153,014	152,104	150,950	149,722	148,482	147,233
Total		324,143	339,599	357,234	341,444	371,918	390,651	388,102	386,091	383,669	381,385	379,270	377,144
General Service - Sanitary Sewer + Stormwater													
Actual					292,171	315,049	336,659			-	-	-	-
Calculated					289,659	317,735	336,984						
					99.1%	100.9%	100.1%						
City - Sanitary Sewer + Stormwater													
Actual					18,140	16,378	16,933						
Calculated					16,491	18,190	16,965						
					90.9%	111.1%	100.2%						
General Service - Water + Sanitary Sewer + Stormwater													
Actual					512,089	552,241	575,735						
Calculated					511,053	551,771	576,742						
					99.8%	99.9%	100.2%						
					(1,036)	(470)	1,007						

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Stormwater - Units of Service													**Customer - 21**
Number of Non- Exempt Parcels													
Residential (Includes Residential No-OPA Parcels)													
Non-Discount													
Water & Sewer	Account - No Growth	-	439,740	421,378	423,543	424,838	424,709	424,709	424,709	424,709	424,709	424,709	424,709
SW Only	Account - No Growth	-	11,345	12,646	11,108	10,567	10,309	10,309	10,309	10,309	10,309	10,309	10,309
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	5,124	20,003	19,918	20,120	20,747	20,747	20,747	20,747	20,747	20,747	20,747
SW Only	Account - No Growth	-	63	16	14	28	29	29	29	29	29	29	29
Discount PHA													
Water & Sewer	Account - No Growth	-	-	4,459	4,363	4,239	4,212	4,212	4,212	4,212	4,212	4,212	4,212
SW Only	Account - No Growth	-	-	273	227	189	181	181	181	181	181	181	181
City Owned													
Water & Sewer	Account - No Growth	-	-	117	99	86	102	102	102	102	102	102	102
SW Only	Account - No Growth	-	-	58	21	22	22	22	22	22	22	22	22
Subtotal		-	456,272	458,950	459,293	460,089	460,311	460,311	460,311	460,311	460,311	460,311	460,311
Non-Residential (Includes Non Residential No-OPA & Unknown No-OPA Parcels)													
Non-Discount													
Water & Sewer	Account - No Growth	-	33,303	32,155	32,049	32,044	32,095	32,095	32,095	32,095	32,095	32,095	32,095
SW Only	Account - No Growth	-	31,033	38,562	38,305	37,626	37,143	37,143	37,143	37,143	37,143	37,143	37,143
Discount Non-PHA (Includes Fairmount Park City Leased Parcels)													
Water & Sewer	Account - No Growth	-	2,303	1,979	1,982	1,949	1,933	1,933	1,933	1,933	1,933	1,933	1,933
SW Only	Account - No Growth	-	275	273	283	303	301	301	301	301	301	301	301
Discount PHA													
Water & Sewer	Account - No Growth	-	-	371	365	358	294	294	294	294	294	294	294
SW Only	Account - No Growth	-	-	976	973	982	1,049	1,049	1,049	1,049	1,049	1,049	1,049
City Owned (Includes Fairmount Park City Owned Parcels)													
Water & Sewer	Account - No Growth	-	-	447	460	458	458	458	458	458	458	458	458
SW Only	Account - No Growth	-	-	711	516	527	532	532	532	532	532	532	532
Subtotal		-	66,914	75,474	74,933	74,247	73,805	73,805	73,805	73,805	73,805	73,805	73,805
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	1,472	1,500	1,550	1,576	1,607	1,607	1,607	1,607	1,607	1,607	1,607
SW Only	Account - No Growth	-	17	34	27	24	27	27	27	27	27	27	27
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	3	31	32	30	33	33	33	33	33	33	33
SW Only	Account - No Growth	-	-	-	-	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	1	1	1	1	1	1	1	1	1
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	2	2	2	2	2	2	2	2	2	2
SW Only	Account - No Growth	-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	1,492	1,567	1,613	1,634	1,671	1,671	1,671	1,671	1,671	1,671	1,671
Total		-	524,678	535,991	535,839	535,970	535,787	535,787	535,787	535,787	535,787	535,787	535,787

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Number of Parcels-Credits													**Customer - 22**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	227	325	380	434	480	527	573	620	666	713
SW Only	Account - No Growth	-	-	171	233	215	221	244	268	292	316	339	363
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	93	137	161	151	167	183	199	216	232	248
SW Only	Account - No Growth	-	-	-	3	31	12	13	15	16	17	18	20
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	1	1	1	1	1	1	1	2	2
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	9	17	18	17	20	22	23	25	27	29
SW Only	Account - No Growth	-	-	1	-	-	-	-	-	-	-	-	-
Subtotal		-	-	501	716	806	836	925	1,016	1,104	1,195	1,284	1,375
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	7	16	19	27	30	33	36	39	41	44
SW Only	Account - No Growth	-	-	-	-	-	1	1	1	1	1	2	2
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	3	2	3	3	3	4	4	4	5	5
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	10	18	22	31	34	38	41	44	48	51
Total		-	-	511	734	828	867	959	1,054	1,145	1,239	1,332	1,426

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Number of Parcels-Appeals (Cumulative Annual Projection)													**Customer - 23**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	793	531	423	335	302	579	840	1,087	1,323	1,546
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	793	531	423	335	302	579	840	1,087	1,323	1,546
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	-	793	531	423	335	302	579	840	1,087	1,323	1,546

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Number of Exempt Parcels													**Customer - 24**
Residential Sideyards													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	929	1,146	1,286	1,393	96	185	268	347	422	494
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	929	1,146	1,286	1,393	96	185	268	347	422	494
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	8,926	(96)	(142)	(165)	(17)	(34)	(51)	(68)	(85)	(102)
Subtotal		-	-	8,926	(96)	(142)	(165)	(17)	(34)	(51)	(68)	(85)	(102)
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-						
SW Only	Account - No Growth	-	-	-	-	-	-						
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	-	9,855	1,050	1,144	1,228	79	151	217	279	337	392

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Number of Billable Parcels-After Exemptions													**Customer - 25**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	439,740	421,378	423,543	424,838	424,709	424,709	424,709	424,709	424,709	424,709	424,709
SW Only	Account - No Growth	-	11,345	12,646	11,108	10,567	10,309	10,213	10,124	10,041	9,962	9,887	9,815
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	5,124	20,003	19,918	20,120	20,747	20,747	20,747	20,747	20,747	20,747	20,747
SW Only	Account - No Growth	-	63	16	14	28	29	29	29	29	29	29	29
Discount PHA													
Water & Sewer	Account - No Growth	-	-	4,459	4,363	4,239	4,212	4,212	4,212	4,212	4,212	4,212	4,212
SW Only	Account - No Growth	-	-	273	227	189	181	181	181	181	181	181	181
City Owned													
Water & Sewer	Account - No Growth	-	-	117	99	86	102	102	102	102	102	102	102
SW Only	Account - No Growth	-	-	58	21	22	22	22	22	22	22	22	22
Subtotal		-	456,272	458,950	459,293	460,089	460,311	460,215	460,126	460,043	459,964	459,889	459,817
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	33,303	32,155	32,049	32,044	32,095	32,095	32,095	32,095	32,095	32,095	32,095
SW Only	Account - No Growth	-	31,033	38,562	38,305	37,626	37,143	37,143	37,143	37,143	37,143	37,143	37,143
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	2,303	1,979	1,982	1,949	1,933	1,933	1,933	1,933	1,933	1,933	1,933
SW Only	Account - No Growth	-	275	273	283	303	301	301	301	301	301	301	301
Discount PHA													
Water & Sewer	Account - No Growth	-	-	371	365	358	294	294	294	294	294	294	294
SW Only	Account - No Growth	-	-	976	973	982	1,049	1,049	1,049	1,049	1,049	1,049	1,049
City Owned													
Water & Sewer	Account - No Growth	-	-	447	460	458	458	458	458	458	458	458	458
SW Only	Account - No Growth	-	-	711	516	527	532	549	566	583	600	617	634
Subtotal		-	66,914	75,474	74,933	74,247	73,805	73,822	73,839	73,856	73,873	73,890	73,907
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	1,472	1,500	1,550	1,576	1,607	1,607	1,607	1,607	1,607	1,607	1,607
SW Only	Account - No Growth	-	17	34	27	24	27	27	27	27	27	27	27
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	3	31	32	30	33	33	33	33	33	33	33
SW Only	Account - No Growth	-	-	-	-	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	1	1	1	1	1	1	1	1	1
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	2	2	2	2	2	2	2	2	2	2
SW Only	Account - No Growth	-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	1,492	1,567	1,613	1,634	1,671	1,671	1,671	1,671	1,671	1,671	1,671
Total		-	524,678	535,991	535,839	535,970	535,787	535,708	535,636	535,570	535,508	535,450	535,395

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Number of Non-Exempt Accounts													**Customer - 26**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	440,807	422,442	424,709	426,047	425,935	425,935	425,935	425,935	425,935	425,935	425,935
SW Only	Account - No Growth	-	11,345	12,676	11,111	10,572	10,317	10,317	10,317	10,317	10,317	10,317	10,317
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	5,274	20,044	19,968	20,169	20,797	20,797	20,797	20,797	20,797	20,797	20,797
SW Only	Account - No Growth	-	63	16	14	28	29	29	29	29	29	29	29
Discount PHA													
Water & Sewer	Account - No Growth	-	5,274	4,586	4,484	4,359	4,345	4,345	4,345	4,345	4,345	4,345	4,345
SW Only	Account - No Growth	-	63	273	227	189	181	181	181	181	181	181	181
City Owned													
Water & Sewer	Account - No Growth	-	-	134	113	98	114	114	114	114	114	114	114
SW Only	Account - No Growth	-	-	58	21	22	22	22	22	22	22	22	22
Subtotal		-	462,826	460,229	460,647	461,484	461,740	461,740	461,740	461,740	461,740	461,740	461,740
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	39,056	37,742	37,662	37,708	37,764	37,764	37,764	37,764	37,764	37,764	37,764
SW Only	Account - No Growth	-	21,944	38,615	38,390	37,734	37,227	37,227	37,227	37,227	37,227	37,227	37,227
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	4,072	2,801	2,792	2,776	2,747	2,747	2,747	2,747	2,747	2,747	2,747
SW Only	Account - No Growth	-	275	273	283	309	304	304	304	304	304	304	304
Discount PHA													
Water & Sewer	Account - No Growth	-	4,072	1,138	1,134	1,520	1,454	1,454	1,454	1,454	1,454	1,454	1,454
SW Only	Account - No Growth	-	275	981	973	982	1,049	1,049	1,049	1,049	1,049	1,049	1,049
City Owned													
Water & Sewer	Account - No Growth	-	-	764	776	778	778	778	778	778	778	778	778
SW Only	Account - No Growth	-	-	714	518	532	536	536	536	536	536	536	536
Subtotal		-	69,694	83,028	82,528	82,339	81,859	81,859	81,859	81,859	81,859	81,859	81,859
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	3,547	3,254	3,348	3,448	3,525	3,525	3,525	3,525	3,525	3,525	3,525
SW Only	Account - No Growth	-	17	35	28	24	29	29	29	29	29	29	29
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	4	410	456	474	487	487	487	487	487	487	487
SW Only	Account - No Growth	-	-	-	-	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer	Account - No Growth	-	4	-	1	1	1	1	1	1	1	1	1
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	3	3	3	3	3	3	3	3	3	3
SW Only	Account - No Growth	-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	3,572	3,702	3,837	3,951	4,046	4,046	4,046	4,046	4,046	4,046	4,046
Total		-	536,092	546,959	547,012	547,774	547,645	547,645	547,645	547,645	547,645	547,645	547,645

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Accounts - Exemptions													
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	17	18	25	24	24	24	24	24	24	24
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	17	18	25	24	24	24	24	24	24	24
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	371	350	357	352	352	352	352	352	352	352	352
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	371	350	357	352	352	352	352	352	352	352	352
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	371	367	375	377	376	376	376	376	376	376	376

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Accounts - After Exemptions													
Residential													
Non-Discount													
Water & Sewer		-	440,807	422,442	424,709	426,047	425,935	425,935	425,935	425,935	425,935	425,935	425,935
SW Only		-	11,345	12,659	11,093	10,547	10,293	10,293	10,293	10,293	10,293	10,293	10,293
Discount Non-PHA													
Water & Sewer		-	5,274	20,044	19,968	20,169	20,797	20,797	20,797	20,797	20,797	20,797	20,797
SW Only		-	63	16	14	28	29	29	29	29	29	29	29
Discount PHA													
Water & Sewer		-	5,274	4,586	4,484	4,359	4,345	4,345	4,345	4,345	4,345	4,345	4,345
SW Only		-	63	273	227	189	181	181	181	181	181	181	181
City Owned													
Water & Sewer		-	-	134	113	98	114	114	114	114	114	114	114
SW Only		-	-	58	21	22	22	22	22	22	22	22	22
Subtotal		-	462,826	460,212	460,629	461,459	461,716	461,716	461,716	461,716	461,716	461,716	461,716
Non-Residential													
Non-Discount													
Water & Sewer		-	39,056	37,742	37,662	37,708	37,764	37,764	37,764	37,764	37,764	37,764	37,764
SW Only		-	21,573	38,265	38,033	37,382	36,875	36,875	36,875	36,875	36,875	36,875	36,875
Discount Non-PHA													
Water & Sewer		-	4,072	2,801	2,792	2,776	2,747	2,747	2,747	2,747	2,747	2,747	2,747
SW Only		-	275	273	283	309	304	304	304	304	304	304	304
Discount PHA													
Water & Sewer		-	4,072	1,138	1,134	1,520	1,454	1,454	1,454	1,454	1,454	1,454	1,454
SW Only		-	275	981	973	982	1,049	1,049	1,049	1,049	1,049	1,049	1,049
City Owned													
Water & Sewer		-	-	764	776	778	778	778	778	778	778	778	778
SW Only		-	-	714	518	532	536	536	536	536	536	536	536
Subtotal		-	69,323	82,678	82,171	81,987	81,507	81,507	81,507	81,507	81,507	81,507	81,507
Condominiums													
Non-Discount													
Water & Sewer		-	3,547	3,254	3,348	3,448	3,525	3,525	3,525	3,525	3,525	3,525	3,525
SW Only		-	17	35	28	24	29	29	29	29	29	29	29
Discount Non-PHA													
Water & Sewer		-	4	410	456	474	487	487	487	487	487	487	487
SW Only		-	-	-	-	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer		-	4	-	1	1	1	1	1	1	1	1	1
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer		-	-	3	3	3	3	3	3	3	3	3	3
SW Only		-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	3,572	3,702	3,837	3,951	4,046	4,046	4,046	4,046	4,046	4,046	4,046
Total		-	535,721	546,592	546,637	547,397	547,269	547,269	547,269	547,269	547,269	547,269	547,269

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Initial Impervious Area	Factored by 1000												**Customer - 27**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	466,107	447,516	448,838	449,589	448,928	445,944	445,944	445,944	445,944	445,944	445,944
SW Only	Account - No Growth	-	9,249	10,317	9,277	8,764	8,325	10,824	10,824	10,824	10,824	10,824	10,824
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	4,452	20,594	20,545	20,836	21,836	21,784	21,784	21,784	21,784	21,784	21,784
SW Only	Account - No Growth	-	54	22	19	44	48	30	30	30	30	30	30
Discount PHA													
Water & Sewer	Account - No Growth	-	-	3,144	3,080	3,002	2,971	4,423	4,423	4,423	4,423	4,423	4,423
SW Only	Account - No Growth	-	-	179	146	123	110	190	190	190	190	190	190
City Owned													
Water & Sewer	Account - No Growth	-	-	116	99	89	115	107	107	107	107	107	107
SW Only	Account - No Growth	-	-	31	15	12	12	23	23	23	23	23	23
Subtotal		-	479,862	481,919	482,019	482,459	482,345	483,325	483,325	483,325	483,325	483,325	483,325
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	514,464	446,581	446,996	452,982	453,495	453,432	453,432	453,432	453,432	453,432	453,432
SW Only	Account - No Growth	-	84,072	90,976	90,505	87,440	83,121	85,261	85,261	85,261	85,261	85,261	85,261
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	97,068	89,703	89,793	91,450	89,888	90,709	90,709	90,709	90,709	90,709	90,709
SW Only	Account - No Growth	-	3,471	4,244	4,040	3,699	3,860	3,787	3,787	3,787	3,787	3,787	3,787
Discount PHA													
Water & Sewer	Account - No Growth	-	-	5,850	5,837	6,433	6,423	6,771	6,771	6,771	6,771	6,771	6,771
SW Only	Account - No Growth	-	-	1,454	1,075	1,106	1,170	1,141	1,141	1,141	1,141	1,141	1,141
City Owned													
Water & Sewer	Account - No Growth	-	-	65,308	65,863	66,077	66,159	66,228	66,228	66,228	66,228	66,228	66,228
SW Only	Account - No Growth	-	-	10,447	7,625	7,588	7,903	7,744	7,744	7,744	7,744	7,744	7,744
Subtotal		-	699,076	714,563	711,734	716,775	712,019	715,073	715,073	715,073	715,073	715,073	715,073
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	14,605	14,134	14,692	14,769	17,845	16,289	16,289	16,289	16,289	16,289	16,289
SW Only	Account - No Growth	-	67	126	146	111	262	184	184	184	184	184	184
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	161	894	911	845	865	872	872	872	872	872	872
SW Only	Account - No Growth	-	-	-	-	21	21	21	21	21	21	21	21
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	6	6	6	6	6	6	6	6	6
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	16	16	16	16	16	16	16	16	16	16
SW Only	Account - No Growth	-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	14,833	15,170	15,772	15,768	19,015	17,388	17,388	17,388	17,388	17,388	17,388
Total		-	1,193,771	1,211,652	1,209,525	1,215,002	1,213,379	1,215,786	1,215,786	1,215,786	1,215,786	1,215,786	1,215,786
Check						**67,345**	**77,741**						

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Deductions: Impervious Area Credits	Factored by 1000												**Customer - 28**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	41,453	41,301	44,987	53,924	60,705	66,884	73,187	79,902	86,693	93,570
SW Only	Account - No Growth	-	-	6,807	9,847	9,851	9,887	11,586	12,765	13,969	15,250	16,546	17,859
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	2,699	3,299	4,538	4,577	5,175	5,702	6,239	6,812	7,391	7,977
SW Only	Account - No Growth	-	-	-	1	1	94	116	127	139	152	165	178
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	5,390	6,670	7,120	7,226	8,671	9,550	10,447	11,402	12,368	13,346
SW Only	Account - No Growth	-	-	2,355	-	-	-	-	-	-	-	-	-
Subtotal		-	-	58,706	61,119	66,495	75,708	86,253	95,028	103,981	113,517	123,162	132,929
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	239	361	613	1,796	2,365	2,606	2,852	3,113	3,378	3,646
SW Only	Account - No Growth	-	-	-	-	-	-	71	78	86	94	102	110
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	237	237	237	237	267	294	322	351	381	411
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	476	598	850	2,032	2,703	2,978	3,259	3,558	3,860	4,167
Total		-	-	59,181	61,716	67,345	77,741	88,956	98,007	107,240	117,075	127,023	137,096

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deductions: Impervious Area Appeals	Factored by 1000												**Customer - 29**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	4,617	4,315	1,498	808	978	1,878	2,725	3,528	4,292	5,017
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	4,617	4,315	1,498	808	978	1,878	2,725	3,528	4,292	5,017
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	-	4,617	4,315	1,498	808	978	1,878	2,725	3,528	4,292	5,017

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deductions: IA Exemptions (sf)	Factored by 1000												**Customer - 30**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	339	406	479	520	35	68	99	128	155	182
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	339	406	479	520	35	68	99	128	155	182
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	8,859	8,980	8,982	9,770	(19)	(38)	(57)	(76)	(95)	(114)
Subtotal		-	-	8,859	8,980	8,982	9,770	(19)	(38)	(57)	(76)	(95)	(114)
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	-	9,198	9,386	9,461	10,290	16	30	42	52	60	68

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Final Impervious Area													**Customer - 31**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	466,107	447,516	448,838	449,589	448,928	445,944	445,944	445,944	445,944	445,944	445,944
SW Only	Account - No Growth	-	9,249	10,317	9,277	8,764	8,325	10,789	10,756	10,725	10,696	10,669	10,642
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	4,452	20,594	20,545	20,836	21,836	21,784	21,784	21,784	21,784	21,784	21,784
SW Only	Account - No Growth	-	54	22	19	44	48	30	30	30	30	30	30
Discount PHA													
Water & Sewer	Account - No Growth	-	-	3,144	3,080	3,002	2,971	4,423	4,423	4,423	4,423	4,423	4,423
SW Only	Account - No Growth	-	-	179	146	123	110	190	190	190	190	190	190
City Owned													
Water & Sewer	Account - No Growth	-	-	116	99	89	115	107	107	107	107	107	107
SW Only	Account - No Growth	-	-	31	15	12	12	23	23	23	23	23	23
Subtotal		-	479,862	481,919	482,019	482,459	482,345	483,290	483,257	483,226	483,197	483,170	483,143
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	514,464	405,128	405,695	407,995	399,571	391,749	384,670	377,520	370,002	362,447	354,845
SW Only	Account - No Growth	-	84,072	84,169	80,658	77,589	73,234	73,675	72,496	71,292	70,011	68,715	67,402
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	97,068	87,004	86,494	86,912	85,311	85,534	85,007	84,470	83,897	83,318	82,732
SW Only	Account - No Growth	-	3,471	4,244	4,039	3,698	3,766	3,671	3,660	3,648	3,635	3,622	3,609
Discount PHA													
Water & Sewer	Account - No Growth	-	-	5,850	5,837	6,433	6,423	6,771	6,771	6,771	6,771	6,771	6,771
SW Only	Account - No Growth	-	-	1,454	1,075	1,106	1,170	1,141	1,141	1,141	1,141	1,141	1,141
City Owned													
Water & Sewer	Account - No Growth	-	-	59,918	59,193	58,957	58,933	57,557	56,678	55,781	54,826	53,860	52,882
SW Only	Account - No Growth	-	-	8,092	7,625	7,588	7,903	7,763	7,782	7,801	7,820	7,839	7,858
Subtotal		-	699,076	655,857	650,615	650,280	636,311	627,861	618,205	608,424	598,104	587,714	577,241
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	14,605	13,895	14,331	14,156	16,049	13,923	13,683	13,437	13,175	12,911	12,643
SW Only	Account - No Growth	-	67	126	146	111	262	113	106	98	91	83	75
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	161	657	674	608	628	606	579	551	521	492	461
SW Only	Account - No Growth	-	-	-	-	21	21	21	21	21	21	21	21
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	6	6	6	6	6	6	6	6	6
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	16	16	16	16	16	16	16	16	16	16
SW Only	Account - No Growth	-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	14,833	14,694	15,174	14,918	16,983	14,685	14,409	14,129	13,830	13,527	13,221
Total		-	1,193,771	1,152,471	1,147,809	1,147,657	1,135,638	1,125,835	1,115,871	1,105,779	1,095,130	1,084,411	1,073,605

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Initial Gross Area	Factored by 1000												**Customer - 32**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	933,952	901,285	904,048	905,532	904,984	896,136	896,136	896,136	896,136	896,136	896,136
SW Only	Account - No Growth	-	19,591	21,495	20,013	19,002	18,260	21,752	21,752	21,752	21,752	21,752	21,752
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	8,537	38,757	38,539	39,330	40,931	43,776	43,776	43,776	43,776	43,776	43,776
SW Only	Account - No Growth	-	113	57	55	105	104	61	61	61	61	61	61
Discount PHA													
Water & Sewer	Account - No Growth	-	8,537	5,031	4,923	4,805	4,814	8,887	8,887	8,887	8,887	8,887	8,887
SW Only	Account - No Growth	-	113	303	248	213	207	382	382	382	382	382	382
City Owned													
Water & Sewer	Account - No Growth	-	-	210	175	158	192	215	215	215	215	215	215
SW Only	Account - No Growth	-	-	61	22	26	23	46	46	46	46	46	46
Subtotal		-	970,842	967,199	968,021	969,170	969,514	971,256	971,256	971,256	971,256	971,256	971,256
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	1,023,922	747,895	723,403	721,477	714,560	719,277	719,277	719,277	719,277	719,277	719,277
SW Only	Account - No Growth	-	292,590	266,815	262,780	261,848	256,039	257,775	257,775	257,775	257,775	257,775	257,775
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	181,624	169,990	171,436	177,220	176,081	175,624	175,624	175,624	175,624	175,624	175,624
SW Only	Account - No Growth	-	6,922	6,766	6,669	6,392	5,952	6,499	6,499	6,499	6,499	6,499	6,499
Discount PHA													
Water & Sewer	Account - No Growth	-	181,624	12,158	12,045	12,861	12,780	13,562	13,562	13,562	13,562	13,562	13,562
SW Only	Account - No Growth	-	6,922	4,295	4,311	4,317	4,440	4,416	4,416	4,416	4,416	4,416	4,416
City Owned													
Water & Sewer	Account - No Growth	-	-	218,106	219,387	218,665	222,227	220,810	220,810	220,810	220,810	220,810	220,810
SW Only	Account - No Growth	-	-	56,634	48,838	49,420	51,458	50,715	50,715	50,715	50,715	50,715	50,715
Subtotal		-	1,693,603	1,482,660	1,448,869	1,452,201	1,443,537	1,448,678	1,448,678	1,448,678	1,448,678	1,448,678	1,448,678
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	22,771	21,785	22,320	22,289	24,774	24,201	24,201	24,201	24,201	24,201	24,201
SW Only	Account - No Growth	-	86	163	173	134	462	289	289	289	289	289	289
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	200	1,813	1,828	1,797	1,819	1,846	1,846	1,846	1,846	1,846	1,846
SW Only	Account - No Growth	-	-	-	-	25	25	25	25	25	25	25	25
Discount PHA													
Water & Sewer	Account - No Growth	-	200	-	9	9	9	9	9	9	9	9	9
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	17	17	17	17	17	17	17	17	17	17
SW Only	Account - No Growth	-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	23,257	23,778	24,349	24,271	27,107	26,388	26,388	26,388	26,388	26,388	26,388
Total		-	2,687,702	2,473,637	2,441,240	2,445,642	2,440,158	2,446,322	2,446,322	2,446,322	2,446,322	2,446,322	2,446,322

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Deductions: Gross Area Credits	Factored by 1000												**Customer - 33**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	92,993	102,837	115,706	113,965	126,961	134,951	142,990	151,277	159,563	167,850
SW Only	Account - No Growth	-	-	49,346	55,305	61,653	60,340	63,726	67,736	71,771	75,931	80,090	84,250
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	36,687	25,348	30,399	29,943	32,005	34,019	36,046	38,135	40,224	42,313
SW Only	Account - No Growth	-	-	-	68	184	294	258	275	291	308	325	342
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	336	336	336	258	275	291	308	325	342
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	5,939	17,715	23,771	24,330	29,684	31,535	33,398	35,319	37,239	39,159
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	184,965	201,609	232,050	229,209	252,892	268,791	284,787	301,276	317,766	334,255
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	317	1,239	1,834	3,604	4,908	5,217	5,528	5,848	6,168	6,489
SW Only	Account - No Growth	-	-	-	-	-	-	258	275	291	308	325	342
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	916	354	391	391	517	549	582	616	649	683
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	1,233	1,593	2,225	3,995	5,683	6,041	6,400	6,771	7,142	7,513
Total		-	-	186,198	203,202	234,275	233,204	258,575	274,832	291,188	308,048	324,908	341,768

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deductions: Gross Area Appeals (sf)	Factored by 1000												**Customer - 34**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	5,258	570	385	2,777	1,113	2,136	3,098	4,012	4,881	5,705
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	5,258	570	385	2,777	1,113	2,136	3,098	4,012	4,881	5,705
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	-	5,258	570	385	2,777	1,113	2,136	3,098	4,012	4,881	5,705

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deductions: GA Exemptions (sf)	Factored by 1000												**Customer - 35**
Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	5,016	5,516	6,026	6,551	444	853	1,237	1,602	1,948	2,278
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	5,016	5,516	6,026	6,551	444	853	1,237	1,602	1,948	2,278
Non-Residential													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	70,563	70,729	69,743	72,415	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	(142)	(285)	(427)	(569)	(712)	(854)
Subtotal		-	-	70,563	70,729	69,743	72,415	(142)	(285)	(427)	(569)	(712)	(854)
Condominiums													
Non-Discount													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount Non-PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Discount PHA													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
SW Only	Account - No Growth	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-	-
Total		-	-	75,578	76,245	75,769	78,966	302	568	810	1,033	1,236	1,424

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Final Gross Area (sf)	Factored by 1000												**Customer - 36**
Residential													
Non-Discount													
Water & Sewer		-	933,952	901,285	904,048	905,532	904,984	896,136	896,136	896,136	896,136	896,136	896,136
SW Only		-	19,591	21,495	20,013	19,002	18,260	21,308	20,899	20,515	20,150	19,804	19,474
Discount Non-PHA													
Water & Sewer		-	8,537	38,757	38,539	39,330	40,931	43,776	43,776	43,776	43,776	43,776	43,776
SW Only		-	113	57	55	105	104	61	61	61	61	61	61
Discount PHA													
Water & Sewer		-	8,537	5,031	4,923	4,805	4,814	8,887	8,887	8,887	8,887	8,887	8,887
SW Only		-	113	303	248	213	207	382	382	382	382	382	382
City Owned													
Water & Sewer		-	-	210	175	158	192	215	215	215	215	215	215
SW Only		-	-	61	22	26	23	46	46	46	46	46	46
Subtotal		-	970,842	967,199	968,021	969,170	969,514	970,812	970,403	970,019	969,654	969,308	968,978
Non-Residential													
Non-Discount													
Water & Sewer		-	1,023,922	654,902	620,566	605,771	600,595	591,203	582,190	573,189	563,988	554,832	545,722
SW Only		-	292,590	217,470	207,476	200,196	195,699	194,049	190,039	186,004	181,844	177,685	173,526
Discount Non-PHA													
Water & Sewer		-	181,624	133,303	146,087	146,821	146,138	143,619	141,605	139,578	137,489	135,400	133,311
SW Only		-	6,922	6,766	6,601	6,208	5,658	6,241	6,224	6,208	6,191	6,174	6,157
Discount PHA													
Water & Sewer		-	181,624	12,158	11,709	12,525	12,444	13,304	13,288	13,271	13,254	13,237	13,221
SW Only		-	6,922	4,295	4,311	4,317	4,440	4,416	4,416	4,416	4,416	4,416	4,416
City Owned													
Water & Sewer		-	-	212,168	201,672	194,894	197,897	191,126	189,275	187,412	185,491	183,571	181,650
SW Only		-	-	56,634	48,838	49,420	51,458	50,857	51,000	51,142	51,284	51,427	51,569
Subtotal		-	1,693,603	1,297,695	1,247,261	1,220,151	1,214,328	1,194,815	1,178,036	1,161,220	1,143,959	1,126,743	1,109,572
Condominiums													
Non-Discount													
Water & Sewer		-	22,771	21,467	21,081	20,454	21,170	19,293	18,985	18,674	18,353	18,033	17,713
SW Only		-	86	163	173	134	462	31	14	(2)	(19)	(36)	(53)
Discount Non-PHA													
Water & Sewer		-	200	897	1,474	1,406	1,428	1,330	1,297	1,264	1,231	1,197	1,163
SW Only		-	-	-	-	25	25	25	25	25	25	25	25
Discount PHA													
Water & Sewer		-	200	-	9	9	9	9	9	9	9	9	9
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer		-	-	17	17	17	17	17	17	17	17	17	17
SW Only		-	-	-	1	-	-	-	-	-	-	-	-
Subtotal		-	23,257	22,545	22,756	22,045	23,111	20,705	20,347	19,987	19,616	19,245	18,875
Total		-	2,687,702	2,287,438	2,238,038	2,211,367	2,206,954	2,186,332	2,168,786	2,151,226	2,133,229	2,115,297	2,097,425
									(17,546)	(17,560)	(17,997)	(17,932)	(17,872)

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Stormwater - Existing Rates													**Customer - 37**
Actual Rate													
Service Charge Based Rates ($/bill) [Including Billing & Collection Charge]													
5/8"		13.22	13.48	13.66	12.29	13.58	13.58	13.58	13.58	13.58	13.58	13.58	13.58
3/4"		70.17	72.79	74.72	86.03	82.56	82.56	82.56	82.56	82.56	82.56	82.56	82.56
1"		115.58	119.91	123.06	142.20	136.42	136.42	136.42	136.42	136.42	136.42	136.42	136.42
1 1/4"		174.53	181.08	185.81	215.21	206.41	206.41	206.41	206.41	206.41	206.41	206.41	206.41
1 1/2"		228.74	237.33	243.51	282.62	271.04	271.04	271.04	271.04	271.04	271.04	271.04	271.04
2"		364.98	378.67	388.52	451.12	432.59	432.59	432.59	432.59	432.59	432.59	432.59	432.59
3"		682.35	707.99	726.36	844.30	809.53	809.53	809.53	809.53	809.53	809.53	809.53	809.53
4"		1,138.85	1,181.65	1,212.33	1,405.97	1,348.04	1,348.04	1,348.04	1,348.04	1,348.04	1,348.04	1,348.04	1,348.04
6"		2,275.29	2,360.82	2,422.05	2,810.17	2,694.27	2,694.27	2,694.27	2,694.27	2,694.27	2,694.27	2,694.27	2,694.27
8"		3,637.57	3,774.31	3,872.17	4,495.21	4,309.78	4,309.78	4,309.78	4,309.78	4,309.78	4,309.78	4,309.78	4,309.78
10"		5,230.51	5,427.13	5,567.85	6,461.07	6,194.53	6,194.53	6,194.53	6,194.53	6,194.53	6,194.53	6,194.53	6,194.53
12"		9,759.34	10,126.37	10,388.56	12,077.86	11,579.52	11,579.52	11,579.52	11,579.52	11,579.52	11,579.52	11,579.52	11,579.52
14"		-	-	-	-	-	-	-	-	-	-	-	-
Parcel Area Based Rates													
Billing & Collection Charge ($/bill)													
Residential		2.42	2.49	2.60	1.59	1.65	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Non-Residential		2.46	2.53	2.65	1.98	2.15	2.19	2.19	2.19	2.19	2.19	2.19	2.19
Condominium		2.46	2.53	2.65	1.98	2.15	2.19	2.19	2.19	2.19	2.19	2.19	2.19
IA/GA Charges													
Residential IA/GA Charge ($/bill)		10.80	10.99	11.06	10.51	11.80	12.46	12.46	12.46	12.46	12.46	12.46	12.46
IA Rate ($/500 sf)													
Non-Residential		4.077	4.145	4.169	4.001	4.497	4.746	4.746	4.746	4.746	4.746	4.746	4.746
Condominium		4.077	4.145	4.169	4.001	4.497	4.746	4.746	4.746	4.746	4.746	4.746	4.746
GA Rate ($/500 sf)													
Non-Residential		0.516	0.526	0.528	0.500	0.560	0.590	0.590	0.590	0.590	0.590	0.590	0.590
Condominium		0.516	0.526	0.528	0.500	0.560	0.590	0.590	0.590	0.590	0.590	0.590	0.590

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Effective Rate													
Effective Months													
Service Charge		12.00	12.00	12.00	6.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Volume Charge		11.50	11.50	11.50	5.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Phase-in													
Meter Based Charges		0%	75%	50%	25%	0%	0%	0%	0%	0%	0%	0%	0%
Parcel Based Charges		0%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%
Service Charge Based Rates ($/bill)													
5/8"		-	10.11	6.83	3.24	-	-	-	-	-	-	-	-
3/4"		-	54.59	37.36	20.09	-	-	-	-	-	-	-	-
1"		-	89.93	61.53	33.16	-	-	-	-	-	-	-	-
1 1/4"		-	135.81	92.91	50.13	-	-	-	-	-	-	-	-
1 1/2"		-	178.00	121.76	65.77	-	-	-	-	-	-	-	-
2"		-	284.00	194.26	104.96	-	-	-	-	-	-	-	-
3"		-	530.99	363.18	196.33	-	-	-	-	-	-	-	-
4"		-	886.24	606.17	327.29	-	-	-	-	-	-	-	-
6"		-	1,770.62	1,211.03	654.03	-	-	-	-	-	-	-	-
8"		-	2,830.73	1,936.09	1,045.92	-	-	-	-	-	-	-	-
10"		-	4,070.35	2,783.93	1,503.62	-	-	-	-	-	-	-	-
12"		-	7,594.78	5,194.28	2,808.30	-	-	-	-	-	-	-	-
14"		-	-	-	-	-	-	-	-	-	-	-	-
Parcel Area Based Rates													
Effective Billing & Collection Charge ($/bill)													
Residential		-	0.62	1.30	1.57	1.65	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Non-Residential		-	0.63	1.33	1.74	2.15	2.19	2.19	2.19	2.19	2.19	2.19	2.19
Condominium		-	0.63	1.33	1.74	2.15	2.19	2.19	2.19	2.19	2.19	2.19	2.19
Effective IA/GA Charges													
Residential IA/GA Charge ($/bill)		-	2.75	5.53	8.11	11.75	12.43	12.46	12.46	12.46	12.46	12.46	12.46
IA Rate ($/500 sf)													
Non-Residential		1.019	1.036	2.084	3.069	4.476	4.736	4.746	4.746	4.746	4.746	4.746	4.746
Condominium		1.019	1.036	2.084	3.069	4.476	4.736	4.746	4.746	4.746	4.746	4.746	4.746
GA Rate ($/500 sf)													
Non-Residential		0.129	0.131	0.264	0.386	0.558	0.589	0.590	0.590	0.590	0.590	0.590	0.590
Condominium		0.129	0.131	0.264	0.386	0.558	0.589	0.590	0.590	0.590	0.590	0.590	0.590

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Stormwater - Calculated Billings (prior to adjustment factor)													**Customer - 38**
Service Charge Based Rates ($/bill)													
Senior Citizens													
5/8" Meter		-	1,709	1,177	561	-	-	-	-	-	-	-	-
> 5/8" Meter		-	0	0	0	-	-	-	-	-	-	-	-
Total Senior Citizens		-	1,709	1,177	561	-	-	-	-	-	-	-	-
General Service (Excluding Senior Citizens)													
5/8" Meter		-	52,966	37,039	17,033	-	-	-	-	-	-	-	-
> 5/8" Meter		-	25,673	16,876	8,996	-	-	-	-	-	-	-	-
Total General Service (excluding SC)		-	78,639	53,915	26,029	-	-	-	-	-	-	-	-
General Service (Including Senior Citizens)													
5/8" Meter		-	54,675	38,216	17,594	-	-	-	-	-	-	-	-
> 5/8" Meter		-	25,673	16,876	8,996	-	-	-	-	-	-	-	-
Total General Service (including SC)		-	80,349	55,092	26,591	-	-	-	-	-	-	-	-
PHA		-	1,743	1,177	590	-	-	-	-	-	-	-	-
Charities & Schools		-	6,625	3,867	2,050	-	-	-	-	-	-	-	-
Hospital/University		-	-	1,484	833	-	-	-	-	-	-	-	-
Hand Bill		-	-	1,632	807	-	-	-	-	-	-	-	-
City Leased Properties		-	-	143	65	-	-	-	-	-	-	-	-
Scheduled		-	-	0	0	-	-	-	-	-	-	-	-
City		-	4,545	3,266	1,580	-	-	-	-	-	-	-	-
Fire Service		-	-	-	-	-	-	-	-	-	-	-	-
Sewer Only		-	61	58	40	-	-	-	-	-	-	-	-
Total		-	93,322	66,720	32,555	-	-	-	-	-	-	-	-

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Billing & Collection Charges (Accounts)													
Residential													
Non-Discount													
Water & Sewer		-	3,293	6,590	8,008	8,436	8,638	8,638	8,638	8,638	8,638	8,638	8,638
SW Only		-	85	198	209	209	209	209	209	209	209	209	209
Discount Non-PHA													
Water & Sewer		-	30	235	282	300	316	316	316	316	316	316	316
SW Only		-	0	0	0	0	0	0	0	0	0	0	0
Discount PHA													
Water & Sewer		-	37	68	80	82	84	84	84	84	84	84	84
SW Only		-	0	4	4	4	3	3	3	3	3	3	3
City Owned													
Water & Sewer		-	-	2	2	2	2	2	2	2	2	2	2
SW Only		-	-	1	0	0	0	0	0	0	0	0	0
Subtotal		-	3,445	7,098	8,587	9,033	9,254	9,254	9,254	9,254	9,254	9,254	9,254
Non-Residential													
Non-Discount													
Water & Sewer		-	296	600	785	973	992	992	992	992	992	992	992
SW Only		-	167	614	800	974	978	978	978	978	978	978	978
Discount Non-PHA													
Water & Sewer		-	23	33	44	54	54	54	54	54	54	54	54
SW Only		-	2	3	4	6	6	6	6	6	6	6	6
Discount PHA													
Water & Sewer		-	29	17	22	37	36	36	36	36	36	36	36
SW Only		-	2	15	19	24	26	26	26	26	26	26	26
City Owned													
Water & Sewer		-	-	12	16	20	20	20	20	20	20	20	20
SW Only		-	-	11	11	14	14	14	14	14	14	14	14
Subtotal		-	519	1,306	1,701	2,101	2,128	2,128	2,128	2,128	2,128	2,128	2,128
Condominiums													
Non-Discount													
Water & Sewer		-	27	52	70	89	93	93	93	93	93	93	93
SW Only		-	0	1	1	1	1	1	1	1	1	1	1
Discount Non-PHA													
Water & Sewer		-	0	5	7	9	10	10	10	10	10	10	10
SW Only		-	-	-	-	0	0	0	0	0	0	0	0
Discount PHA													
Water & Sewer		-	0	-	0	0	0	0	0	0	0	0	0
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer		-	-	0	0	0	0	0	0	0	0	0	0
SW Only		-	-	-	0	-	-	-	-	-	-	-	-
Subtotal		-	27	57	78	99	103	103	103	103	103	103	103
Total		-	3,992	8,461	10,366	11,233	11,485	11,485	11,485	11,485	11,485	11,485	11,485

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
GA/IA Charges (Parcels)													
Residential													
Non-Discount													
Water & Sewer		-	14,488	27,955	41,199	59,883	63,362	63,502	63,502	63,502	63,502	63,502	63,502
SW Only		-	374	839	1,080	1,489	1,538	1,527	1,514	1,501	1,489	1,478	1,468
Discount Non-PHA													
Water & Sewer		-	127	995	1,453	2,127	2,321	2,327	2,327	2,327	2,327	2,327	2,327
SW Only		-	2	1	1	3	3	3	3	3	3	3	3
Discount PHA													
Water & Sewer		-	-	281	403	568	597	598	598	598	598	598	598
SW Only		-	-	17	21	25	26	26	26	26	26	26	26
City Owned													
Water & Sewer		-	-	8	10	12	15	15	15	15	15	15	15
SW Only		-	-	4	2	3	3	3	3	3	3	3	3
Subtotal		-	14,990	30,100	44,169	64,111	67,866	68,002	67,989	67,976	67,964	67,953	67,942
Non-Residential													
Non-Discount													
Water & Sewer		-	16,015	24,412	35,636	51,937	53,900	52,993	52,059	51,117	50,131	49,141	48,146
SW Only		-	3,012	5,587	7,865	11,014	11,089	11,140	10,948	10,754	10,549	10,343	10,135
Discount Non-PHA													
Water & Sewer		-	2,239	3,897	5,794	8,476	8,821	8,832	8,766	8,698	8,627	8,556	8,483
SW Only		-	81	191	269	360	381	380	379	378	376	375	374
Discount PHA													
Water & Sewer		-	544	351	512	816	861	912	911	911	911	911	911
SW Only		-	21	95	113	168	186	183	183	183	183	183	183
City Owned													
Water & Sewer		-	-	4,341	6,230	8,942	9,494	9,262	9,136	9,007	8,871	8,734	8,596
SW Only		-	-	763	1,015	1,476	1,625	1,604	1,609	1,613	1,617	1,621	1,625
Subtotal		-	21,912	39,638	57,434	83,189	86,356	85,306	83,991	82,662	81,266	79,863	78,452
Condominiums													
Non-Discount													
Water & Sewer		-	435	831	1,251	1,794	2,123	1,859	1,827	1,795	1,761	1,726	1,691
SW Only		-	2	7	12	14	36	13	12	11	10	9	8
Discount Non-PHA													
Water & Sewer		-	3	29	48	63	69	66	63	60	58	55	52
SW Only		-	-	-	-	2	2	2	2	2	2	2	2
Discount PHA													
Water & Sewer		-	1	-	1	1	1	1	1	1	1	1	1
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer		-	-	1	1	2	2	2	2	2	2	2	2
SW Only		-	-	-	0	-	-	-	-	-	-	-	-
Subtotal		-	441	868	1,313	1,876	2,233	1,943	1,908	1,871	1,833	1,794	1,755
Total		-	37,342	70,606	102,915	149,176	156,455	155,251	153,887	152,510	151,064	149,611	148,149

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Parcel Area Based Charges (Billing & Collection + GA/IA)													
Residential													
Non-Discount													
Water & Sewer (5/8" - 2320)		-	17,781	34,545	49,206	68,319	72,000	72,140	72,140	72,140	72,140	72,140	72,140
SW Only		-	459	1,037	1,290	1,699	1,747	1,736	1,723	1,711	1,699	1,687	1,677
Discount Non-PHA													
Water & Sewer (Senior Citizen: 2317)		-	156	1,230	1,735	2,427	2,638	2,643	2,643	2,643	2,643	2,643	2,643
SW Only		-	2	1	1	3	4	4	4	4	4	4	4
Discount PHA													
Water & Sewer		-	37	349	483	650	681	682	682	682	682	682	682
SW Only		-	0	21	25	29	29	29	29	29	29	29	29
City Owned													
Water & Sewer		-	-	10	12	14	18	18	18	18	18	18	18
SW Only		-	-	5	2	4	4	4	4	4	4	4	4
Subtotal		-	18,435	37,198	52,756	73,144	77,120	77,256	77,243	77,230	77,218	77,207	77,196
Non-Residential													
Non-Discount													
Water & Sewer (>5/8": 2321)		-	16,311	25,012	36,421	52,910	54,892	53,986	53,052	52,110	51,123	50,133	49,138
SW Only		-	3,179	6,201	8,665	11,988	12,067	12,118	11,927	11,733	11,528	11,321	11,113
Discount Non-PHA													
Water & Sewer		-	2,262	3,930	5,838	8,530	8,875	8,886	8,820	8,753	8,681	8,610	8,538
SW Only		-	83	195	273	366	387	386	385	384	382	381	380
Discount PHA													
Water & Sewer		-	573	368	534	853	897	948	948	948	947	947	947
SW Only		-	23	110	132	192	212	209	209	209	209	209	209
City Owned													
Water & Sewer		-	-	4,353	6,246	8,962	9,515	9,283	9,156	9,028	8,892	8,755	8,616
SW Only		-	-	775	1,025	1,490	1,639	1,618	1,623	1,627	1,631	1,635	1,639
Subtotal		-	22,431	40,944	59,135	85,290	88,484	87,434	86,119	84,790	83,394	81,991	80,580
Condominiums													
Non-Discount													
Water & Sewer		-	462	883	1,321	1,883	2,216	1,952	1,920	1,888	1,853	1,819	1,784
SW Only		-	2	8	13	14	37	14	13	12	11	10	9
Discount Non-PHA													
Water & Sewer		-	4	34	55	72	78	75	73	70	67	64	61
SW Only		-	-	-	-	2	2	2	2	2	2	2	2
Discount PHA													
Water & Sewer		-	1	-	1	1	1	1	1	1	1	1	1
SW Only		-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer		-	-	1	1	2	2	2	2	2	2	2	2
SW Only		-	-	-	0	-	-	-	-	-	-	-	-
Subtotal		-	468	925	1,390	1,975	2,336	2,046	2,011	1,975	1,936	1,898	1,858
Total		-	41,334	79,067	113,281	160,409	167,940	166,736	165,372	163,994	162,548	161,096	159,634

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Stormwater Charge-Non City													
Water & Sewer		-	126,364	129,805	126,569	135,644	142,277	141,313	140,278	139,234	138,139	137,039	135,934
SW Only		-	3,747	7,573	10,400	14,293	14,485	14,498	14,292	14,083	13,864	13,643	13,422
Total Stormwater Charge-City													
Water & Sewer		-	4,545	7,630	7,839	8,978	9,534	9,302	9,176	9,048	8,912	8,774	8,636
SW Only		-	-	780	1,028	1,494	1,643	1,622	1,626	1,631	1,635	1,639	1,643
Total		-	134,656	145,787	145,836	160,409	167,940	166,736	165,372	163,994	162,548	161,096	159,634
Actual					133,222	148,612	151,255	164,452					
					109.47%	107.94%	111.03%	101.39%					

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Stormwater - Retail - Billings Under Existing Rates (after adjustment factor)													**Customer - 39**
Section provided to allow for actual billings input													
Total Stormwater Charge-Non City													
Water & Sewer		-	126,364	129,805	126,569	135,644	142,277	141,313	140,278	139,234	138,139	137,039	135,934
SW Only		-	3,747	7,573	10,400	14,293	14,485	14,498	14,292	14,083	13,864	13,643	13,422
Total		-	130,111	137,378	136,969	149,937	156,763	155,811	154,570	153,316	152,002	150,682	149,355
CAP Reduction													
Water & Sewer		-	-	(1,084)	(2,206)	(4,175)	(3,779)	(3,190)	(3,101)	(3,012)	(2,924)	(2,835)	(2,746)
SW Only		-	-	(63)	(181)	(440)	(385)	(327)	(316)	(305)	(293)	(282)	(271)
Total (a)		-	-	(1,147)	(2,387)	(4,615)	(4,164)	(3,517)	(3,417)	(3,317)	(3,217)	(3,117)	(3,017)
Data Source: PWD SWDB													
Total Stormwater Charge-Non City													
Water & Sewer		-	126,364	128,721	124,364	131,469	138,498	138,124	137,177	136,221	135,215	134,204	133,188
SW Only		-	3,747	7,509	10,219	13,853	14,100	14,171	13,976	13,778	13,570	13,361	13,151
Total		-	130,111	136,231	134,582	145,322	152,599	152,294	151,153	149,999	148,785	147,565	146,338

(a) Source Data: PWD Assistance Program Data

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Stormwater - Retail - Collections													**Customer - 40**
Total Stormwater Charge-Non City													
Water & Sewer		-	126,364	128,721	124,364	131,469	138,498	138,124	137,177	136,221	135,215	134,204	133,188
SW Only		-	3,747	7,509	10,219	13,853	14,100	14,171	13,976	13,778	13,570	13,361	13,151
Total Stormwater Charge-City													
Water & Sewer		-	4,545	7,630	7,839	8,978	9,534	9,302	9,176	9,048	8,912	8,774	8,636
SW Only		-	-	780	1,028	1,494	1,643	1,622	1,626	1,631	1,635	1,639	1,643
Total		-	134,656	144,640	143,449	155,794	163,776	163,219	161,955	160,677	159,331	157,979	156,617
Collection Factors													
Water & Sewer (Excludes AMI Adjustment)													
Current Year		85.20%	80.60%	83.40%	83.30%	84.80%	84.80%	84.30%	84.30%	84.30%	84.30%	84.30%	84.30%
First Year Prior		9.28%	9.28%	8.93%	10.05%	10.20%	10.25%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Second Year Prior		2.00%	2.00%	2.00%	2.00%	2.35%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
SW Only													
Current Year		54.00%	37.75%	56.45%	57.40%	53.80%	53.80%	53.80%	53.80%	53.80%	53.80%	53.80%	53.80%
First Year Prior		8.70%	8.70%	14.68%	9.87%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%
Second Year Prior		2.40%	2.40%	2.40%	3.72%	2.19%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%
Effective													
Current Year			76.69%	77.15%	76.31%	76.34%	76.34%	76.01%	76.05%	76.08%	76.12%	76.16%	76.21%
First Year Prior			8.95%	8.71%	9.42%	9.38%	9.42%	9.22%	9.22%	9.22%	9.23%	9.23%	9.23%
Second Year Prior			1.94%	1.90%	2.00%	2.18%	1.89%	1.89%	1.89%	1.89%	1.89%	1.90%	1.90%
City													
Current Year		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
First Year Prior		0.00%	0.00%	0.00%	0.00%	0.00%	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%	0.00%	0.00%	0.00%	0.00%	0.00%
Collections-Non City													
Water & Sewer			101,850	118,638	119,059	127,196	133,409	132,917	132,223	131,315	130,352	129,380	128,402
Stormwater Only			1,414	4,789	6,746	8,507	9,028	9,172	9,079	8,957	8,824	8,689	8,552
Subtotal-Non City			103,264	123,427	125,805	135,702	142,438	142,089	141,302	140,272	139,176	138,069	136,954
Collections-City													
Water & Sewer			4,545	7,630	7,839	8,978	9,534	9,302	9,176	9,048	8,912	8,774	8,636
Stormwater Only			-	780	1,028	1,494	1,643	1,622	1,626	1,631	1,635	1,639	1,643
Subtotal-City			4,545	8,409	8,867	10,471	11,178	10,925	10,802	10,678	10,546	10,413	10,279
Total		-	107,809	131,836	134,671	146,174	153,615	153,014	152,104	150,950	149,722	148,482	147,233

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Actual-Non City													
Water & Sewer		-	-	-	-	-	-						
Stormwater Only		-	-	-	-	-	-						
Actual-City													
Water & Sewer		-	-	-	-	-	-						
Stormwater Only		-	-	-	-	-	-						
Actual			100,106	116,495	112,850	120,011	128,107						
Check			103%	106%	111%	113%	111%						

Description	Escalation	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detail Stormwater - Retail - Collections													**Customer - 41**
Residential													
Non-Discount													
Water & Sewer (5/8" Meter - 2320)	x	-	57,022	66,019	63,787	66,373	69,384	69,381	69,468	69,471	69,471	69,471	69,471
SW Only	x	-	173	653	860	1,049	1,118	1,126	1,119	1,110	1,103	1,095	1,088
Discount Non-PHA													
Water & Sewer (5/8" Meter - 2317)	x	-	1,504	2,174	2,192	2,349	2,531	2,540	2,545	2,545	2,545	2,545	2,545
SW Only	x	-	1	1	1	2	2	2	2	2	2	2	2
Discount PHA													
Water & Sewer	x	-	30	294	439	608	653	656	657	657	657	657	657
SW Only	x	-	0	12	16	18	19	19	19	19	19	19	19
City Owned													
Water & Sewer		-	-	10	12	14	18	18	18	18	18	18	18
SW Only		-	-	5	2	4	4	4	4	4	4	4	4
Subtotal		-	58,730	69,168	67,309	70,416	73,729	73,745	73,831	73,826	73,818	73,811	73,804
Non-Residential													
Non-Discount													
Water & Sewer (adj for CAP) (>5/8 Meter	x	-	33,889	39,314	41,880	46,830	49,221	48,907	48,210	47,400	46,541	45,674	44,802
SW Only (adj for CAP)	x	-	1,200	3,932	5,594	7,085	7,487	7,628	7,543	7,432	7,308	7,182	7,054
Discount Non-PHA													
Water & Sewer (2332 & 2333)	x	-	7,163	8,534	8,375	8,341	8,575	8,549	8,501	8,438	8,370	8,301	8,232
SW Only	x	-	31	122	179	225	246	250	250	249	248	247	246
Discount PHA													
Water & Sewer (PHA - 2331)	x	-	1,867	1,496	1,138	874	870	906	912	912	912	912	912
SW Only	x	-	9	65	88	117	134	135	136	136	136	136	136
City Owned													
Water & Sewer (2337)		-	4,545	7,619	7,826	8,962	9,515	9,283	9,156	9,028	8,892	8,755	8,616
SW Only		-	-	775	1,025	1,490	1,639	1,618	1,623	1,627	1,631	1,635	1,639
Subtotal		-	48,703	61,857	66,105	73,924	77,687	77,276	76,331	75,222	74,038	72,842	71,637
Condominiums													
Non-Discount													
Water & Sewer	x	-	372	777	1,198	1,753	2,099	1,905	1,858	1,822	1,789	1,756	1,722
SW Only	x	-	1	5	8	9	21	11	9	8	7	6	6
Discount Non-PHA													
Water & Sewer	x	-	3	29	49	68	75	73	70	68	65	62	60
SW Only	x	-	-	-	-	1	1	1	1	1	1	1	1
Discount PHA													
Water & Sewer	x	-	1	0	0	1	1	1	1	1	1	1	1
SW Only	x	-	-	-	-	-	-	-	-	-	-	-	-
City Owned													
Water & Sewer		-	-	1	1	2	2	2	2	2	2	2	2
SW Only		-	-	-	0	-	-	-	-	-	-	-	-
Subtotal		-	376	812	1,257	1,833	2,199	1,993	1,942	1,902	1,866	1,829	1,792
Total		-	107,809	131,836	134,671	146,174	153,615	153,014	152,104	150,950	149,722	148,482	147,233

Description	Escalation	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Collections-Non City													
Water & Sewer		-	101,850	118,638	119,059	127,196	133,409	132,917	132,223	131,315	130,352	129,380	128,402
Check		-	-	-	-	-	-	-	-	-	-	-	-
Stormwater Only		-	1,414	4,789	6,746	8,507	9,028	9,172	9,079	8,957	8,824	8,689	8,552
Check		-	-	-	-	-	-	-	-	-	-	-	-
Collections-City													
Water & Sewer		-	4,545	7,630	7,839	8,978	9,534	9,302	9,176	9,048	8,912	8,774	8,636
Check		-	-	-	-	-	-	-	-	-	-	-	-
Stormwater Only		-	-	780	1,028	1,494	1,643	1,622	1,626	1,631	1,635	1,639	1,643
		-	-	-	-	-	-	-	-	-	-	-	-

FINPLAN15.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 Tab - 1a

SELECTED BILL TAB DISTRIBUTION

Year Choose: 2014

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	City Leased	Scheduled	City	Fire Service	Private Fire (Unmetered)	Total
Water Accounts												
Meters	450,357	19,523	5,981	2,731	427	272	69	2	921	3,511	6,528	
5/8	439,106	19,518	5,747	1,283	47	12	16	2	210	79	58	466,078
3/4	48	-	-	-	-	-	-	-	5	-	18	71
1	5,200	3	66	339	28	15	8	-	118	40	582	6,399
1 1/4	-	-	-	-	-	-	-	-	-	-	-	-
1 1/2	1,792	1	8	167	13	11	6	-	70	19	123	2,210
2	2,512	1	63	260	54	37	12	-	232	515	1,424	5,111
3	720	-	37	249	90	71	7	-	125	162	227	1,688
4	475	-	27	325	101	78	12	-	73	857	1,272	3,221
6	352	-	24	86	81	33	5	-	57	1,347	2,046	4,031
8	130	-	9	20	10	12	2	-	18	419	667	1,287
10	17	-	-	2	3	3	1	-	13	63	94	196
12	5	-	-	-	-	-	-	-	-	9	16	30
14	-	-	-	-	-	-	-	-	-	-	-	-
Total	450,357	19,523	5,981	2,731	427	272	69	2	921	3,511	6,528	490,322
Volume	4,597,397	109,963	165,984	217,250	262,373	562,496	8,095	22	219,674	9,277		
0 - 2 Mcf	3,062,916	102,178	59,605	39,032	7,205	5,370	443	22	12,016	737		3,289,523
2 - 100 Mcf	1,250,876	7,732	63,405	155,394	136,220	155,553	3,225	-	74,152	3,087		1,849,644
100 - 2,000 Mcf	272,393	53	42,974	22,825	118,947	289,261	1,142	-	122,669	5,453		875,717
Over 2,000 Mcf	2,450	-	-	-	-	112,312	3,285	-	10,837	-		128,884
Total	4,588,635	109,963	165,984	217,250	262,373	562,496	8,095	22	219,674	9,277		6,143,768

2015 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/ University	Hand Bill	City Leased	Scheduled	City	Fire Service	Private Fire (Unmetered)	Total
Water Accounts		Fiscal Year	2015									
Meters												
5/8	432,207	20,183	5,636	1,239	49	11	17	2	228	76	64	459,712
3/4	62	0	0	0	0	0	0	0	6	0	30	98
1	5,632	2	71	326	34	14	7	0	124	42	877	7,129
1 1/4	-	0	0	0	0	0	0	0	0	0	0	-
1 1/2	1,821	1	25	159	14	10	7	0	70	36	164	2,307
2	2,655	1	68	251	61	37	15	0	231	764	1,827	5,910
3	748	0	38	228	107	72	8	0	131	177	228	1,737
4	512	0	26	304	123	74	15	0	77	951	1,312	3,394
6	389	0	25	80	94	36	6	0	64	1,484	2,102	4,280
8	144	0	9	18	12	13	2	0	22	465	686	1,371
10	16	0	0	2	4	4	1	0	14	69	95	205
12	6	0	0	0	0	0	0	0	0	10	17	33
14	-	0	0	0	0	0	0	0	0	0		-
Total	444,192	20,187	5,898	2,607	498	271	78	2	967	4,074	7,402	486,176
Volume	INPUT REFLECTS FY 2014 DISTRIBUTION											
0 - 2 Mcf	3,117,445	105,015	61,082	36,865	7,624	5,505	818	22	12,433	684		3,347,493
2 - 100 Mcf	1,279,525	7,947	64,976	146,768	144,143	159,462	5,961	0	76,727	2,865		1,888,373
100 - 2,000 Mcf	277,821	54	44,039	21,558	125,865	296,530	2,112	0	126,928	5,060		899,968
Over 2,000 Mcf	2,493	0	0	0	0	115,135	6,071	0	11,214	0		134,912
Total	4,677,283	113,016	170,098	205,190	277,633	576,632	14,962	22	227,301	8,609		6,270,746

Source Documents:
Meter Distribution: RFC Report 1B
Volume Distribution: RFC Report 2

2014 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	City Leased	Scheduled	City	Fire Service	Private Fire (Unmetered)	Total
Water Accounts		Fiscal Year	2014									
Meters												
5/8	439,105	19,518	5,747	1,283	47	12	17	2	210	79	58	466,078
3/4	48	0	0	0	0	0	0	0	5	0	18	71
1	5,200	3	66	339	28	15	8	0	118	40	582	6,399
1 1/4	-	0	0	0	0	0	0	0	0	0	0	-
1 1/2	1,792	1	8	167	13	11	6	0	70	19	123	2,210
2	2,512	1	63	260	54	37	13	0	232	515	1,423	5,110
3	720	0	37	249	90	71	7	0	125	162	227	1,688
4	475	0	27	325	101	78	13	0	73	857	1,271	3,220
6	352	0	24	86	81	33	5	0	57	1,347	2,045	4,030
8	130	0	9	20	10	12	2	0	18	419	667	1,287
10	17	0	0	2	3	3	1	0	13	63	94	196
12	5	0	0	0	0	0	0	0	0	9	16	30
14	-	0	0	0	0	0	0	0	0	0	0	-
Total	450,356	19,523	5,981	2,731	427	272	72	2	921	3,510	6,524	490,319
Volume												
0 - 2 Mcf	3,117,445	105,015	61,082	36,865	7,624	5,505	818	22	12,433	684		3,347,493
2 - 100 Mcf	1,279,525	7,947	64,976	146,768	144,143	159,462	5,961	0	76,727	2,865		1,888,373
100 - 2,000 Mcf	277,821	54	44,039	21,558	125,865	296,530	2,112	0	126,928	5,060		899,968
Over 2,000 Mcf	2,493	0	0	0	0	115,135	6,071	0	11,214	0		134,912
Total	4,677,283	113,016	170,098	205,190	277,633	576,632	14,962	22	227,301	8,609		6,270,746

Source Documents:
Meter Distribution: RFC Report 1B
Volume Distribution: RFC Report 2

2013 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	City Leased	Scheduled	City	Fire Service	Fire Hydrants	Total
Water Accounts		Year Choose:	2013									
Meters												
5/8	438,834	19,234	5,815	1,249	50	12	17	2	244	66	0	465,523
3/4	28	0	0	0	0	0	0	0	6	0	0	34
1	4,619	3	65	344	24	16	8	0	119	35	0	5,233
1 1/4	-	0	0	0	0	0	0	0	0	0	0	-
1 1/2	1,643	1	9	169	12	10	6	0	70	15	0	1,935
2	2,277	1	59	265	53	34	13	0	230	323	0	3,255
3	678	0	37	250	87	69	6	0	126	171	0	1,424
4	437	0	28	321	94	75	13	0	74	844	0	1,886
6	326	0	24	85	76	32	4	0	69	1,362	0	1,978
8	113	0	9	19	10	12	1	0	25	422	0	611
10	14	0	0	2	4	4	1	0	14	64	0	103
12	5	0	0	0	0	0	0	0	1	9	0	15
14	-	0	0	0	0	0	0	0	0	0	0	-
Total	448,974	19,239	6,046	2,704	410	264	69	2	978	3,311	-	481,997

Source Documents:
Meter Distribution: RFC Report 1B

2012 Data

Description	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	City Leased	Scheduled	City	Fire Service	Fire Hydrants	Total
Water Accounts		Year Choose:	2012									
Meters												
5/8	452,892	19,155	5,969	1,277	47	15	14	2	295	53	0	479,719
3/4	49	0	0	0	0	0	0	0	7	0	0	56
1	4,536	2	47	346	22	16	8	0	129	33	0	5,139
1 1/4	-	0	0	0	0	0	0	0	0	0	0	-
1 1/2	1,647	1	11	171	11	11	7	0	73	13	0	1,945
2	2,257	1	58	266	53	41	14	0	247	239	0	3,176
3	664	0	36	252	84	72	6	0	135	192	0	1,441
4	431	0	29	322	94	80	14	0	80	923	0	1,973
6	319	0	25	90	74	32	5	0	73	1,496	0	2,114
8	114	0	9	19	9	14	1	0	26	462	0	654
10	19	0	0	2	3	6	1	0	15	69	0	115
12	4	0	0	0	0	0	0	0	1	10	0	15
14	-	0	0	0	0	0	0	0	0	0	0	-
Total	462,932	19,159	6,184	2,745	397	287	70	2	1,081	3,490	-	496,347

Source Documents:
Meter Distribution: RFC Report 1B

Water

Bill Tab - 1b

SELECTED BILL TAB DISTRIBUTION Year Choose: 2014

Description	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
						Year Choose:	2014		
Meters	92.11%	7.62%	0.24%	0.03%	414,816	34,334	1,088	119	450,357
5/8	98.97%	81.49%	49.36%	31.09%	410,554	27,978	537	37	439,106
3/4	0.01%	0.04%	0.00%	0.00%	34	14	-	-	48
1	0.57%	7.46%	23.44%	23.53%	2,355	2,562	255	28	5,200
1 1/4	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
1 1/2	0.15%	3.09%	7.81%	8.40%	637	1,060	85	10	1,792
2	0.22%	4.32%	10.57%	16.81%	893	1,484	115	20	2,512
3	0.04%	1.47%	4.60%	10.92%	152	505	50	13	720
4	0.02%	1.07%	1.75%	3.36%	83	369	19	4	475
6	0.02%	0.74%	1.65%	4.20%	76	253	18	5	352
8	0.01%	0.27%	0.64%	0.84%	28	94	7	1	130
10	0.00%	0.03%	0.18%	0.00%	3	12	2	-	17
12	0.00%	0.01%	0.00%	0.84%	1	3	-	1	5
14	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	414,816	34,334	1,088	119	450,357
Volume	69.96%	27.63%	2.22%	0.19%	3,216,276	1,270,462	101,897	8,762	4,597,397
0 - 2 Mcf	84.70%	25.70%	11.91%	14.65%	2,724,329	326,447	12,139	1,284	3,064,200
2 - 100 Mcf	14.11%	59.24%	43.57%	77.55%	453,813	752,670	44,393	6,796	1,257,671
100 - 2,000 Mcf	1.19%	14.87%	44.52%	7.79%	38,134	188,894	45,365	683	273,076
Over 2,000 Mcf	0.00%	0.19%	0.00%	0.00%	-	2,450	-	-	2,450
Total	100.00%	100.00%	100.00%	100.00%	3,216,276	1,270,462	101,897	8,762	4,597,397

2015 Data

Description	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
				Needs values		Fiscal Year	2015		
Meters	91.98%	7.75%	0.24%	0.03%					
5/8	97.34%	81.14%	48.71%	36.97%	403,775	27,858	530	44	432,207
3/4	0.01%	0.04%	0.00%	0.00%	49	13	0	0	62
1	0.66%	7.56%	22.98%	24.37%	2,757	2,596	250	29	5,632
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.16%	3.15%	7.72%	8.40%	647	1,080	84	10	1,821
2	0.24%	4.48%	10.57%	17.65%	980	1,539	115	21	2,655
3	0.04%	1.54%	4.69%	10.92%	154	530	51	13	748
4	0.02%	1.16%	1.84%	4.20%	90	397	20	5	512
6	0.02%	0.81%	1.75%	2.52%	89	278	19	3	389
8	0.01%	0.30%	0.74%	0.84%	31	104	8	1	144
10	0.00%	0.03%	0.18%	0.00%	3	11	2	0	16
12	0.00%	0.01%	0.00%	0.84%	1	4	0	1	6
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	98.50%	100.22%	99.17%	106.72%	408,576	34,410	1,079	127	444,192
Volume	69.96%	27.63%	2.22%	0.19%					
0 - 2 Mcf	84.70%	25.70%	11.91%	14.65%	2,771,668	332,120	12,350	1,306	3,117,445
2 - 100 Mcf	14.11%	59.24%	43.57%	77.55%	461,698	765,749	45,164	6,914	1,279,525
100 - 2,000 Mcf	1.19%	14.87%	44.52%	7.79%	38,796	192,177	46,154	695	277,821
Over 2,000 Mcf	0.00%	0.19%	0.00%	0.00%	0	2,493	0	0	2,493
Total	100.00%	100.00%	100.00%	100.00%	3,272,163	1,292,538	103,668	8,915	4,677,283

Source Documents:
Meter Distribution: RFC Report 1B
Volume Distribution: RFC Report 2

2014 Data

Description	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
				Needs values		Fiscal Year	2014		
Meters	92.11%	7.62%	0.24%	0.03%					
5/8	98.97%	81.49%	49.36%	31.09%	410,553	27,978	537	37	439,105
3/4	0.01%	0.04%	0.00%	0.00%	34	14	0	0	48
1	0.57%	7.46%	23.44%	23.53%	2,355	2,562	255	28	5,200
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.15%	3.09%	7.81%	8.40%	637	1,060	85	10	1,792
2	0.22%	4.32%	10.57%	16.81%	893	1,484	115	20	2,512
3	0.04%	1.47%	4.60%	10.92%	152	505	50	13	720
4	0.02%	1.07%	1.75%	3.36%	83	369	19	4	475
6	0.02%	0.74%	1.65%	4.20%	76	253	18	5	352
8	0.01%	0.27%	0.64%	0.84%	28	94	7	1	130
10	0.00%	0.03%	0.18%	0.00%	3	12	2	0	17
12	0.00%	0.01%	0.00%	0.84%	1	3	0	1	5
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	414,815	34,334	1,088	119	450,356
Volume	69.96%	27.63%	2.22%	0.19%					
0 - 2 Mcf	84.70%	25.70%	11.91%	14.65%	2,771,668	332,120	12,350	1,306	3,117,445
2 - 100 Mcf	14.11%	59.24%	43.57%	77.55%	461,698	765,749	45,164	6,914	1,279,525
100 - 2,000 Mcf	1.19%	14.87%	44.52%	7.79%	38,796	192,177	46,154	695	277,821
Over 2,000 Mcf	0.00%	0.19%	0.00%	0.00%	0	2,493	0	0	2,493
Total	100.00%	100.00%	100.00%	100.00%	3,272,163	1,292,538	103,668	8,915	4,677,283

Source Documents:
Meter Distribution: RFC Report 1B
Volume Distribution: RFC Report 2

2013 Data

Description	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
				Needs values	Year Choose:		2013		
Meters	92.31%	7.43%	0.23%	0.02%					
5/8	99.13%	82.17%	49.81%	31.19%	410,862	27,416	522	34	438,834
3/4	0.00%	0.03%	0.00%	0.00%	18	10	0	0	28
1	0.47%	7.26%	23.28%	22.94%	1,928	2,422	244	25	4,619
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.13%	2.99%	7.54%	8.26%	558	997	79	9	1,643
2	0.18%	4.16%	10.50%	16.51%	761	1,388	110	18	2,277
3	0.03%	1.42%	4.58%	11.01%	145	473	48	12	678
4	0.02%	1.01%	1.91%	3.67%	76	337	20	4	437
6	0.02%	0.70%	1.62%	5.50%	71	232	17	6	326
8	0.01%	0.24%	0.57%	0.00%	27	80	6	0	113
10	0.00%	0.03%	0.19%	0.00%	3	9	2	0	14
12	0.00%	0.01%	0.00%	0.92%	1	3	0	1	5
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	414,450	33,367	1,048	109	448,974

Source Documents:
Meter Distribution: RFC Report 1B

2012 Data

Description	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
				Needs values	Year Choose:		2012		
Meters	92.48%	7.26%	0.24%	0.02%					
5/8	99.19%	82.28%	49.55%	34.00%	424,668	27,643	547	34	452,892
3/4	0.01%	0.06%	0.00%	0.00%	28	21	0	0	49
1	0.43%	7.25%	23.19%	25.00%	1,820	2,435	256	25	4,536
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.13%	2.99%	7.70%	9.00%	547	1,006	85	9	1,647
2	0.17%	4.13%	10.87%	14.00%	736	1,387	120	14	2,257
3	0.04%	1.37%	4.08%	9.00%	150	460	45	9	664
4	0.02%	0.98%	1.99%	4.00%	77	328	22	4	431
6	0.02%	0.66%	1.63%	5.00%	73	223	18	5	319
8	0.01%	0.24%	0.54%	0.00%	28	80	6	0	114
10	0.00%	0.03%	0.45%	0.00%	3	11	5	0	19
12	0.00%	0.01%	0.00%	0.00%	1	3	0	0	4
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	428,131	33,597	1,104	100	462,932

Source Documents:
Meter Distribution: RFC Report 1B

Sewer

Bill Tab - 2a

SELECTED BILL TAB DISTRIBUTION

Year Choose: 2014

	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	City Leased	Scheduled	City	Fire Service	Sewer Only	Total
Sewer Accounts												
Meters	447,667	19,505	5,857	2,606	375	254	41	2	830	81	59	4,597,397
5/8	437,712	19,501	5,743	1,261	44	21	10	2	195	55	48	464,592
3/4	48	-	-	-	-	-	-	-	1	-	1	50
1	5,009	3	13	334	28	15	5	-	108	8	1	5,523
1 1/4	-	-	-	-	-	-	-	-	-	-	-	-
1 1/2	1,751	1	8	163	14	10	5	-	65	3	-	2,020
2	1,989	-	15	256	54	37	10	-	225	9	4	2,601
3	696	-	37	245	88	66	5	-	121	1	1	1,260
4	320	-	20	307	90	71	7	-	57	3	-	875
6	115	-	14	34	50	24	-	-	31	1	2	272
8	22	-	7	5	6	7	-	-	11	-	2	61
10	5	-	-	-	1	3	-	-	14	-	-	23
12	-	-	-	-	-	-	-	-	1	-	-	1
14	-	-	-	-	-	-	-	-	-	-	-	-
Total	447,667	19,505	5,857	2,606	375	254	41	2	830	81	59	477,277
Volume	4,553,441	109,880	165,961	211,193	262,322	524,773	4,443	22	218,014	2,991	76,652	
0 - 2 Mcf	4,597,397	109,880	165,961	211,193	262,322	524,773	4,443	22	218,014	2,991	76,652	6,173,647
2 - 100 Mcf	-	-	-	-	-	-	-	-	-	-	-	-
100 - 2,000 Mcf	-	-	-	-	-	-	-	-	-	-	-	-
Over 2,000 Mcf	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,597,397	109,880	165,961	211,193	262,322	524,773	4,443	22	218,014	2,991	76,652	6,173,647

2015 Data

Sewer Accounts	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/ University	Hand Bill	City Leased	Scheduled	City	Fire Service	Sewer Only	Total
Meters	**Fiscal Year:**	2015										
5/8	430,861	20,166	5,631	1,226	45	10	11	2	228	47		458,227
3/4	61	0	0	0	0	0	0	0	1	0		62
1	5,417	2	13	323	33	14	4	0	122	7		5,935
1 1/4	-	0	0	0	0	0	0	0	0	0		-
1 1/2	1,771	1	25	156	14	10	6	0	72	3		2,058
2	2,051	0	16	246	61	37	13	0	240	9		2,673
3	719	0	38	225	106	71	6	0	135	2		1,302
4	331	0	19	289	108	73	8	0	62	3		893
6	117	0	14	33	53	24	0	0	34	1		276
8	25	0	7	4	6	6	0	0	13	0		61
10	4	0	0	0	2	3	0	0	17	0		26
12	-	0	0	0	0	0	0	0	1	1		2
14	-	0	0	0	0	0	0	0	0	0		-
Total	441,357	20,169	5,763	2,502	428	248	48	2	925	73	-	471,515
Volume	Volume Distribution not required for Sanitary Sewer											
0 - 2 Mcf	4,572,011	100	100	100	100	100	100	100	100	100	100	4,573,011
2 - 100 Mcf	-	0	0	0	0	0	0	0	0	0	0	-
100 - 2,000 Mcf	-	0	0	0	0	0	0	0	0	0	0	-
Over 2,000 Mcf	-	0	0	0	0	0	0	0	0	0	0	-
Total	4,572,011	100	100	100	100	100	100	100	100	100	100	4,573,011

Source Documents:
Meter Distribution: RFC Report 1B

Source Documents:
Meter Distribution: RFC Report 1B

2014 Data

Sewer Accounts	General Service	Senior Citizens	PHA	Charity and Schools	Hospital/University	Hand Bill	City Leased	Scheduled	City	Fire Service	Sewer Only	Total
Meters	**Fiscal Year:**	2014										
5/8	438,089	19,509	5,767	1,264	44	23	11	2	206	53	48	465,016
3/4	48	0	0	0	0	0	0	0	1	0	1	50
1	5,013	3	13	335	28	16	5	0	114	8	1	5,536
1 1/4	-	0	0	0	0	0	0	0	0	0	0	-
1 1/2	1,753	1	8	163	14	11	5	0	69	3	0	2,027
2	1,991	0	15	257	55	40	11	0	238	9	4	2,620
3	697	0	37	246	89	71	5	0	128	1	1	1,275
4	320	0	20	308	91	77	7	0	60	3	0	886
6	115	0	14	34	51	26	0	0	33	1	2	276
8	22	0	7	5	6	8	0	0	12	0	2	62
10	5	0	0	0	1	3	0	0	15	0	0	24
12	-	0	0	0	0	0	0	0	1	0	0	1
14	-	0	0	0	0	0	0	0	0	0	0	-
Total	448,053	19,513	5,881	2,612	379	275	44	2	877	78	59	477,773
Volume	Volume Distribution not required for Sanitary Sewer											
0 - 2 Mcf	4,572,011	100	100	100	100	100	100	100	100	100	100	4,573,011
2 - 100 Mcf	-	0	0	0	0	0	0	0	0	0	0	-
100 - 2,000 Mcf	-	0	0	0	0	0	0	0	0	0	0	-
Over 2,000 Mcf	-	0	0	0	0	0	0	0	0	0	0	-
Total	4,572,011	100	100	100	100	100	100	100	100	100	100	4,573,011

Source Documents:
Meter Distribution: RFC Report 1B

2013 Data

Sewer Accounts **Meters**	**General Service** **Year Choose:**	**Senior Citizens** 2013	**PHA**	**Charity and Schools**	**Hospital/University**	**Hand Bill**	**City Leased**	**Scheduled**	**City**	**Fire Service**	**Sewer Only**	**Total**
5/8	439,445	19,221	5,811	1,241	47	23	12	2	230	39	34	466,105
3/4	49	0	0	0	0	0	0	0	1	0	2	52
1	5,222	3	15	341	24	16	5	0	113	13	1	5,753
1 1/4	-	0	0	0	0	0	0	0	0	0	0	-
1 1/2	1,800	1	9	167	12	10	5	0	67	7	0	2,078
2	2,525	0	14	261	53	36	11	0	225	11	2	3,138
3	723	0	37	246	86	69	4	0	123	4	1	1,293
4	477	0	20	303	86	75	8	0	58	5	0	1,032
6	354	0	14	33	50	26	0	0	31	4	2	514
8	130	0	7	5	6	8	0	0	12	2	2	172
10	17	0	0	0	2	4	0	0	13	0	0	36
12	5	0	0	0	0	0	0	0	1	0	0	6
14	-	0	0	0	0	0	0	0	0	0	0	-
Total	450,747	19,225	5,927	2,597	366	267	45	2	874	85	44	480,179

Source Documents:
Meter Distribution: RFC Report 1B

Sewer

Bill Tab - 2b

SELECTED BILL TAB DISTRIBUTION Year Choose: 2014

	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
						Year Choose:	2014		
Meters	92.18%	7.56%	0.23%	0.03%	412,674	33,825	1,051	117	447,667
5/8	99.16%	82.59%	51.05%	31.62%	409,202	27,936	537	37	437,712
3/4	0.01%	0.04%	0.00%	0.00%	33	15	-	-	48
1	0.53%	7.53%	24.24%	23.08%	2,179	2,548	255	27	5,009
1 1/4	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
1 1/2	0.15%	3.10%	7.98%	8.55%	609	1,048	84	10	1,751
2	0.11%	4.16%	10.36%	16.24%	453	1,409	109	19	1,989
3	0.03%	1.47%	4.47%	11.11%	140	497	47	13	696
4	0.01%	0.77%	1.24%	3.42%	43	260	13	4	320
6	0.00%	0.27%	0.67%	5.13%	12	90	7	6	115
8	0.00%	0.05%	0.00%	0.85%	3	18	-	1	22
10	0.00%	0.01%	0.00%	0.00%	-	5	-	-	5
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%	412,674	33,825	1,051	117	447,667
Volume	71.44%	26.53%	1.85%	0.19%	3,252,808	1,208,089	84,024	8,519	4,553,441
0 - 2 Mcf	100.00%	100.00%	100.00%	100.00%	3,216,276	1,270,462	101,897	8,762	4,597,397
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%	3,216,276	1,270,462	101,897	8,762	4,597,397

2015 Data

	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
					Fiscal Year:		2015		
Meters	92.09%	7.65%	0.23%	0.03%					
5/8	97.45%	82.04%	50.10%	37.61%	402,517	27,773	527	44	430,861
3/4	0.01%	0.04%	0.00%	0.00%	48	13	0	0	61
1	0.62%	7.59%	23.57%	23.93%	2,571	2,570	248	28	5,417
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.15%	3.14%	7.89%	8.55%	615	1,063	83	10	1,771
2	0.12%	4.26%	10.46%	17.09%	480	1,441	110	20	2,051
3	0.03%	1.52%	4.66%	11.11%	141	516	49	13	719
4	0.01%	0.80%	1.24%	4.27%	43	270	13	5	331
6	0.00%	0.28%	0.67%	2.56%	12	95	7	3	117
8	0.00%	0.06%	0.00%	0.85%	3	21	0	1	25
10	0.00%	0.01%	0.00%	0.00%	0	4	0	0	4
12	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	98.40%	99.74%	98.57%	105.98%	406,430	33,766	1,037	124	441,357
Volume	71.44%	26.53%	1.85%	0.19%					
0 - 2 Mcf	100.00%	100.00%	100.00%	100.00%	3,266,074	1,213,016	84,367	8,554	4,572,011
2 - 100 Mcf	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
100 - 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Over 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	3,266,074	1,213,016	84,367	8,554	4,572,011

Source Documents:
Meter Distribution: RFC Report 1B

2014 Data

	Residential	Commercial	Industrial	Public Utilities	Residential	Commercial	Industrial	Public Utilities	Total
					Fiscal Year:		2014		
Meters	92.18%	7.56%	0.23%	0.03%					
5/8	99.16%	82.59%	51.05%	31.62%	409,555	27,960	537	37	438,089
3/4	0.01%	0.04%	0.00%	0.00%	33	15	0	0	48
1	0.53%	7.53%	24.24%	23.08%	2,181	2,550	255	27	5,013
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.15%	3.10%	7.98%	8.55%	610	1,049	84	10	1,753
2	0.11%	4.16%	10.36%	16.24%	453	1,410	109	19	1,991
3	0.03%	1.47%	4.47%	11.11%	140	497	47	13	697
4	0.01%	0.77%	1.24%	3.42%	43	260	13	4	320
6	0.00%	0.27%	0.67%	5.13%	12	90	7	6	115
8	0.00%	0.05%	0.00%	0.85%	3	18	0	1	22
10	0.00%	0.01%	0.00%	0.00%	0	5	0		5
12	0.00%	0.00%	0.00%	0.00%	0	0			-
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	413,030	33,854	1,052	117	448,053
Volume	71.44%	26.53%	1.85%	0.19%					
0 - 2 Mcf	100.00%	100.00%	100.00%	100.00%	3,266,074	1,213,016	84,367	8,554	4,572,011
2 - 100 Mcf	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
100 - 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Over 2,000 Mcf	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	3,266,074	1,213,016	84,367	8,554	4,572,011

Source Documents:
Meter Distribution: RFC Report 1B

2013 Data

	Water & Sewer	Sewer Only			Water & Sewer	Sewer Only	Total		
					Year Choose:	2013		currently reflect 2014 data	
Meters	92.09%	7.64%	0.24%	0.03%					
5/8	98.97%	81.43%	49.41%	30.83%	410,823	28,045	540	37	439,445
3/4	0.01%	0.04%	0.00%	0.00%	34	15	0	0	49
1	0.57%	7.48%	23.51%	23.33%	2,361	2,576	257	28	5,222
1 1/4	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
1 1/2	0.15%	3.10%	7.78%	8.33%	639	1,066	85	10	1,800
2	0.22%	4.35%	10.52%	16.67%	893	1,497	115	20	2,525
3	0.04%	1.48%	4.57%	10.83%	152	508	50	13	723
4	0.02%	1.07%	1.74%	3.33%	84	370	19	4	477
6	0.02%	0.74%	1.65%	5.00%	76	254	18	6	354
8	0.01%	0.27%	0.64%	0.83%	28	94	7	1	130
10	0.00%	0.03%	0.18%	0.00%	3	12	2	0	17
12	0.00%	0.01%	0.00%	0.83%	1	3	0	1	5
14	0.00%	0.00%	0.00%	0.00%	0	0	0	0	-
Total	100.00%	100.00%	100.00%	100.00%	415,094	34,440	1,093	120	450,747

Source Documents:
Meter Distribution: RFC Report 1B

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OTHER REVENUE

Index	Description	Table

Other Revenue	Other Revenue Worksheet
Other Revenue - 1	Water System Other Revenue
Other Revenue - 2	Sewer System Other Revenue
Other Revenue - 3	Combined System Other Revenue

Water — Other Revenue - 1

Penalties - Percentage of Billings	1.66%	1.38%	1.50%	1.44%	1.46%	1.42%	1.45%	1.45%	1.45%	1.45%	1.45%	1.45%
Penalties	2,992	2,736	3,169	3,126	3,347	3,454	3,509	3,484	3,460	3,439	3,421	3,403
Misc City Revenues	826	750	555	473	784	2,109	1,960	1,960	1,960	1,960	1,960	1,960
Other	2,434	2,965	2,799	3,911	3,881	5,611	4,000	4,000	4,000	4,000	4,000	4,000
State & Federal Grants	2,631	2,869	3,192	2,727	1,299	1,083	1,000	1,000	1,000	1,000	1,000	1,000
Permits Issued by L&I (L&I)	1,113	1,115	1,199	1,592	1,673	1,920	1,500	1,240	1,240	1,240	1,240	1,240
Miscellaneous (Procurement)	106	120	131	142	198	164	150	150	150	150	150	250
Affordability Program Discount Adjustment	-	-	-	-	-	-	-	-	(7,084)	(7,392)	(7,744)	(8,184)
Release from Debt Service Reserve	-	-	-	-	-	-	-	-	-	6,749	-	-
Total	10,102	10,555	11,045	11,971	11,182	14,341	12,119	11,834	4,726	11,145	4,027	3,669

Notes: See Assumptions-3

Sewer — Other Revenue - 2

Penalties - Percentage of Billings	1.66%	1.38%	1.50%	1.44%	1.46%	1.42%	1.45%	1.45%	1.45%	1.45%	1.45%	1.45%
Penalties	4,508	4,114	4,523	4,584	4,863	5,032	5,104	5,069	5,033	5,000	4,970	4,939
Misc City Revenues	1,653	1,500	1,109	945	1,568	-	-	-	-	-	-	-
Other	2,434	2,964	2,799	3,910	3,881	5,611	4,000	4,000	4,000	4,000	4,000	4,000
State & Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Permits Issued by L&I (L&I)	1,113	1,116	1,199	1,592	1,673	1,920	1,500	1,240	1,240	1,240	1,240	1,240
Miscellaneous (Procurement)	105	120	130	141	198	164	150	150	150	150	150	250
Affordability Program Discount Adjustment	-	-	-	-	-	-	-	-	(9,016)	(9,408)	(9,856)	(10,416)
Release from Debt Service Reserve	-	-	-	-	-	-	-	-	-	12,032	-	-
Total	9,813	9,814	9,760	11,172	12,183	12,727	10,754	10,459	1,407	13,014	504	13

Notes: See Assumptions-3

Total

Other Revenue - 3

Penalties - Percentage of Billings	1.50%	1.33%	1.45%	1.36%	1.37%	1.43%	1.46%	1.46%	1.46%	1.46%	1.46%	1.46%
Penalties	7,500	6,850	7,692	7,710	8,210	8,486	8,614	8,553	8,493	8,439	8,391	8,342
Misc City Revenues	2,479	2,250	1,664	1,418	2,352	2,109	1,960	1,960	1,960	1,960	1,960	1,960
Other	4,868	5,929	5,598	7,821	7,762	11,223	8,000	8,000	8,000	8,000	8,000	8,000
State & Federal Grants	2,631	2,869	3,192	2,727	1,299	1,083	1,000	1,000	1,000	1,000	1,000	1,000
Permits Issued by L&I (L&I)	2,226	2,231	2,398	3,184	3,346	3,840	3,000	2,480	2,480	2,480	2,480	2,480
Miscellaneous (Procurement)	211	240	261	283	396	327	300	300	300	300	300	500
Affordability Program Discount Adjustment	-	-	-	-	-	-	-	-	(16,100)	(16,800)	(17,600)	(18,600)
Release from Debt Service Reserve	0	0	0	0	0	-	-	-	-	18,781	-	-
Total	19,915	20,369	20,805	23,143	23,365	27,068	22,874	22,293	6,133	24,160	4,531	3,682

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	
Direct O&M - 4	Water System O&M	
Direct O&M - 5	Wastewater System O&M	
Direct O&M - 6	Allocation of Wastewater Costs to WTP Sludge	
Direct O&M - 7	Liquidated Encumbrances	
Direct O&M - 8	Detailed Allocation Finance & Admin	
Direct O&M - 9	Detailed Allocation of Operations Class 100	
Direct O&M - 10	Detailed Allocation of Operations Power	
Direct O&M - 11	Detailed Allocation of Operations Class 200 Excl. Power	
Direct O&M - 12	Detailed Allocation of Operations Chemicals	
Direct O&M - 13	Detailed Allocation of Operations Class 300 Excl. Chemicals	
Direct O&M - 14	Detailed Allocation of Operations Class 400	
Direct O&M - 15	PWD Projected Direct O&M Budget	

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
PWD Direct O&M														**Direct O&M - 1**
Human Resources and Administration														
100	Salaries & Wages	Labor	$ 7,003,220	$ 6,782,159	$ 6,591,224	$ 6,911,366	$ 7,650,763	$ 8,502,816	$ 8,815,500	$ 9,079,965	$ 9,352,364	$ 9,632,935	$ 9,921,923	$ 10,219,581
200	Services	Other 200	1,725,940	1,856,758	2,676,000	2,019,108	3,277,947	4,562,319	3,967,655	4,106,523	4,250,252	4,399,010	4,552,976	4,712,330
300	Materials and Supplies	Other 300	550,431	579,242	474,539	575,822	632,835	725,233	792,493	808,342	824,509	840,999	857,819	874,976
400	Equipment	Other 400	67,500	24,547	111,049	46,389	140,816	413,078	691,110	706,660	722,559	738,817	755,440	772,438
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration			$ 9,347,091	$ 9,242,706	$ 9,852,812	$ 9,552,685	$ 11,702,361	$ 14,203,446	$ 14,266,757	$ 14,701,490	$ 15,149,684	$ 15,611,762	$ 16,088,158	$ 16,579,324
Finance														
100	Salaries & Wages	Labor	$ 1,186,788	$ 1,393,850	$ 1,388,706	$ 1,472,571	$ 1,849,144	$ 2,170,853	$ 2,550,200	$ 2,626,706	$ 2,705,507	$ 2,786,672	$ 2,870,273	$ 2,956,381
200	Services	Other 200	5,044,204	10,311,521	9,206,767	5,577,954	4,366,100	4,811,153	3,767,322	3,899,178	4,035,649	4,176,897	4,323,088	4,474,396
2xx	SMIP/GARP	Constant	-	-	5,025,000	4,925,776	5,020,143	11,598,134	11,450,000	11,450,000	11,450,000	11,450,000	11,450,000	11,450,000
300	Materials and Supplies	Other 300	458,592	661,729	598,960	383,299	124,596	23,023	22,226	22,671	23,124	23,587	24,059	24,540
400	Equipment	Other 400	(53,111)	86,002	527,642	244,778	521,252	-	24,489	25,040	25,604	26,180	26,769	27,371
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	9,498,869	7,754,262	9,074,729	10,792,914	7,714,419	6,244,621	6,545,139	6,741,493	6,943,738	7,152,050	7,366,611	7,587,610
Subtotal Finance			$ 16,135,342	$ 20,207,364	$ 25,821,804	$ 23,397,293	$ 19,595,654	$ 24,847,784	$ 24,359,376	$ 24,765,088	$ 25,183,622	$ 25,615,386	$ 26,060,799	$ 26,520,298
Planning and Engineering														
100	Salaries & Wages	Labor	$ 1,323,931	$ 1,449,595	$ 1,028,722	$ 1,057,108	$ 1,043,846	$ 1,199,514	$ 1,225,000	$ 1,261,750	$ 1,299,603	$ 1,338,591	$ 1,378,748	$ 1,420,111
200	Services	Other 200	301,450	528,000	259,551	235,838	155,719	297,188	198,765	205,722	212,922	220,374	228,087	236,070
300	Materials and Supplies	Other 300	134,435	147,000	133,233	191,888	105,252	102,067	143,010	145,870	148,787	151,763	154,798	157,894
400	Equipment	Other 400	54,497	228,000	28,435	30,333	27,449	14,614	10,938	11,184	11,436	11,693	11,956	12,225
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning and Engineering			$ 1,814,313	$ 2,352,595	$ 1,449,941	$ 1,515,167	$ 1,332,266	$ 1,613,383	$ 1,577,713	$ 1,624,526	$ 1,672,748	$ 1,722,421	$ 1,773,590	$ 1,826,301
Operations														
100	Salaries & Wages	Labor	$ 63,510,492	$ 62,637,659	$ 62,092,417	$ 63,390,240	$ 65,710,338	$ 71,789,745	$ 74,515,100	$ 76,750,553	$ 79,053,070	$ 81,424,662	$ 83,867,402	$ 86,383,424
200	Services	Other 200	46,195,838	44,989,464	49,900,039	53,779,374	55,165,835	55,277,653	57,483,011	59,494,916	61,577,238	63,732,442	65,963,077	68,271,785
220	Power	Energy	20,191,277	27,311,199	24,841,360	24,375,674	21,440,579	20,427,534	22,474,933	22,474,933	23,036,807	23,612,727	24,203,045	24,808,121
300	Materials and Supplies	Other 300	12,986,710	12,662,984	15,651,859	16,475,057	14,625,464	14,703,881	15,999,264	16,319,249	16,645,634	16,978,547	17,318,118	17,664,480
307	Chemicals	Chemicals	21,927,884	19,400,817	20,239,205	22,602,203	24,446,114	22,324,969	22,170,391	22,902,014	23,657,780	24,438,487	25,244,957	26,078,041
400	Equipment	Other 400	953,855	549,906	1,356,406	994,870	1,172,215	1,219,613	1,197,193	1,224,130	1,251,673	1,279,835	1,308,632	1,338,076
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Operations			$ 165,766,056	$ 167,552,029	$ 174,081,286	$ 181,617,418	$ 182,560,545	$ 185,743,395	$ 193,839,893	$ 199,165,796	$ 205,222,202	$ 211,466,700	$ 217,905,231	$ 224,543,927
Planning & Environmental Services														
100	Salaries & Wages	Labor	$ 8,578,791	$ 8,437,905	$ 9,163,710	$ 10,315,992	$ 11,080,774	$ 12,135,854	$ 13,024,700	$ 13,415,441	$ 13,817,904	$ 14,232,441	$ 14,659,415	$ 15,099,197
200	Services	Other 200	15,280,610	15,276,152	16,447,254	18,442,417	17,411,374	22,388,075	24,012,455	24,852,891	25,722,742	26,623,038	27,554,845	28,519,264
300	Materials and Supplies	Other 300	908,893	903,646	962,010	867,520	1,015,983	989,788	1,039,725	1,060,519	1,081,730	1,103,364	1,125,432	1,147,940
400	Equipment	Other 400	591,429	672,252	55,839	470,735	556,793	187,954	432,131	441,854	451,796	461,962	472,356	482,984
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning & Environmental Services			$ 25,359,723	$ 25,289,955	$ 26,628,813	$ 30,096,664	$ 30,064,924	$ 35,701,671	$ 38,509,011	$ 39,770,706	$ 41,074,172	$ 42,420,805	$ 43,812,046	$ 45,249,385

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs														
100	Salaries & Wages	Labor	$ 1,756,193	$ 1,803,302	$ 2,110,095	$ 2,110,697	$ 2,260,265	$ 2,644,067	$ 2,831,100	$ 2,916,033	$ 3,003,514	$ 3,093,619	$ 3,186,428	$ 3,282,021
200	Services	Other 200	2,516,445	3,091,251	4,525,982	6,591,039	7,244,654	8,001,034	8,158,089	8,443,622	8,739,149	9,045,019	9,361,595	9,689,250
300	Materials and Supplies	Other 300	229,644	221,111	206,542	219,959	168,011	156,358	192,257	196,102	200,024	204,025	208,105	212,267
400	Equipment	Other 400	3,788	3,293	2,688	17,734	1,134	13,757	10,875	11,120	11,370	11,626	11,887	12,155
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Affairs			$ 4,506,070	$ 5,118,957	$ 6,845,307	$ 8,939,429	$ 9,674,064	$ 10,815,216	$ 11,192,321	$ 11,566,877	$ 11,954,057	$ 12,354,289	$ 12,768,015	$ 13,195,693
PWD Operating and Maintenance Expenses Summary														
100	Salaries & Wages		$ 83,359,415	$ 82,504,470	$ 82,374,874	$ 85,257,975	$ 89,595,130	$ 98,442,849	$ 102,961,600	$ 106,050,448	$ 109,231,961	$ 112,508,920	$ 115,884,188	$ 119,360,714
200	Services		71,064,487	76,053,146	83,015,593	86,645,730	87,621,629	95,337,422	97,587,297	101,002,852	104,537,952	108,196,780	111,983,668	115,903,096
220	Power		20,191,277	27,311,199	24,841,360	24,375,674	21,440,579	20,427,534	22,474,933	22,474,933	23,036,807	23,612,727	24,203,045	24,808,121
2xx	SMIP/GARP		-	-	5,025,000	4,925,776	5,020,143	11,598,134	11,450,000	11,450,000	11,450,000	11,450,000	11,450,000	11,450,000
300	Materials and Supplies		15,268,705	15,175,712	18,027,143	18,713,545	16,672,141	16,700,350	18,188,975	18,552,754	18,923,809	19,302,285	19,688,331	20,082,098
307	Chemicals		21,927,884	19,400,817	20,239,205	22,602,203	24,446,114	22,324,969	22,170,391	22,902,014	23,657,780	24,438,487	25,244,957	26,078,041
400	Equipment		1,617,958	1,564,000	2,082,059	1,804,839	2,419,659	1,849,016	2,366,736	2,419,988	2,474,438	2,530,112	2,587,040	2,645,248
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		9,498,869	7,754,262	9,074,729	10,792,914	7,714,419	6,244,621	6,545,139	6,741,493	6,943,738	7,152,050	7,366,611	7,587,610
Total PWD Operating and Maintenance Expenses Summary			**$ 222,928,595**	**$ 229,763,606**	**$ 244,679,963**	**$ 255,118,655**	**$ 254,929,814**	**$ 272,924,895**	**$ 283,745,071**	**$ 291,594,482**	**$ 300,256,485**	**$ 309,191,362**	**$ 318,407,840**	**$ 327,914,927**
PWD Operating and Maintenance Expenses Summary - Annual Increase														
100	Salaries & Wages		-3.81%	-1.03%	-0.16%	3.50%	5.09%	9.88%	4.59%	3.00%	3.00%	3.00%	3.00%	3.00%
200	Services		8.91%	7.02%	9.15%	4.37%	1.13%	8.81%	2.36%	3.50%	3.50%	3.50%	3.50%	3.50%
220	Power		-0.56%	35.26%	-9.04%	-1.87%	-12.04%	-4.72%	10.02%	0.00%	2.50%	2.50%	2.50%	2.50%
2xx	SMIP/GARP		0.00%			-1.97%	1.92%	131.03%	-1.28%	0.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies		1.07%	-0.61%	18.79%	3.81%	-10.91%	0.17%	8.91%	2.00%	2.00%	2.00%	2.00%	2.00%
307	Chemicals		2.25%	-11.52%	4.32%	11.68%	8.16%	-8.68%	-0.69%	3.30%	3.30%	3.30%	3.30%	3.30%
400	Equipment		34.04%	-3.33%	33.12%	-13.31%	34.07%	-23.58%	28.00%	2.25%	2.25%	2.25%	2.25%	2.25%
500	Contributions		0.00%											
800	Transfers		-8.64%	-18.37%	17.03%	18.93%	-28.52%	-19.05%	4.81%	3.00%	3.00%	3.00%	3.00%	3.00%
Total PWD Operating and Maintenance Expenses Summary - Annual Increase			1.16%	3.07%	6.49%	4.27%	-0.07%	7.06%	3.96%	2.77%	2.97%	2.98%	2.98%	2.99%
PWD Operating and Maintenance Expenses Summary - 3 Year Average Increase														
100	Salaries & Wages				-1.68%	0.75%	2.79%	6.12%	6.49%	5.78%	3.53%	3.00%	3.00%	3.00%
200	Services				8.36%	6.83%	4.83%	4.72%	4.04%	4.85%	3.12%	3.50%	3.50%	3.50%
220	Power				6.95%	6.48%	-7.75%	-6.31%	-2.67%	1.58%	4.09%	1.66%	2.50%	2.50%
2xx	SMIP/GARP				0.00%	0.00%	0.00%	32.16%	32.47%	31.63%	-0.43%	0.00%	0.00%	0.00%
300	Materials and Supplies				6.07%	7.02%	3.18%	-2.52%	-0.94%	3.63%	4.25%	2.00%	2.00%	2.00%
307	Chemicals				-1.91%	1.01%	8.01%	3.32%	-0.64%	-2.15%	1.95%	3.30%	3.30%	3.30%
400	Equipment				19.93%	3.71%	15.66%	-3.88%	9.46%	0.00%	10.20%	2.25%	2.25%	2.25%
500	Contributions				0.00%	0.00%	0.00%							
800	Transfers				-4.43%	4.35%	-0.17%	-11.71%	-15.36%	-4.39%	3.60%	3.00%	3.00%	3.00%
Total PWD Operating and Maintenance Expenses Summary - 3 Year Average Increase					3.55%	4.60%	3.53%	3.71%	3.61%	4.58%	3.23%	2.90%	2.98%	2.98%

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
PWD O&M Adjustments														**Direct O&M - 2**
Human Resources and Administration														
100	Salaries & Wages							$ -	$ -	$ 375,000	$ 386,000	$ 398,000	$ 410,000	$ 422,000
200	Services							-	-	1,000,000	1,035,000	1,071,000	1,108,000	1,147,000
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Human Resources and Administration								$ -	$ -	$ 1,375,000	$ 1,421,000	$ 1,469,000	$ 1,518,000	$ 1,569,000
Finance														
100	Salaries & Wages							$ -	$ -	$ 56,000	$ 58,000	$ 60,000	$ 62,000	$ 64,000
200	Services							-	4,000,000	5,205,000	1,893,000	1,915,000	1,938,000	1,961,000
2xx	SMIP/GARP							2,000,000	-	3,550,000	3,550,000	3,550,000	3,550,000	3,550,000
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	1,800,000	3,500,000	-	-	-
Subtotal Finance								$ 2,000,000	$ 4,000,000	$ 10,611,000	$ 9,001,000	$ 5,525,000	$ 5,550,000	$ 5,575,000
Planning and Engineering														
100	Salaries & Wages							$ -	$ -	$ 500,000	$ 515,000	$ 530,000	$ 546,000	$ 562,000
200	Services							-	-	600,000	621,000	643,000	666,000	689,000
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Planning and Engineering								$ -	$ -	$ 1,100,000	$ 1,136,000	$ 1,173,000	$ 1,212,000	$ 1,251,000
Operations														
100	Salaries & Wages							$ -	$ -	$ -	$ 50,000	$ 712,000	$ 488,000	$ 213,000
200	Services							-	-	1,760,000	1,924,000	492,000	(84,000)	(773,000)
220	Power							-	-	-	-	-	-	-
300	Materials and Supplies							-	-	450,000	666,000	787,000	916,000	938,000
307	Chemicals							-	-	-	-	-	-	-
400	Equipment							-	-	125,000	125,000	130,000	135,000	140,000
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Operations								$ -	$ -	$ 2,335,000	$ 2,765,000	$ 2,121,000	$ 1,455,000	$ 518,000
Planning & Environmental Services														
100	Salaries & Wages							$ -	$ -	$ 771,000	$ 952,000	$ 1,148,000	$ 1,363,000	$ 1,404,000
200	Services							-	-	600,000	800,000	1,000,000	1,000,000	1,000,000
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Planning & Environmental Services								$ -	$ -	$ 1,371,000	$ 1,752,000	$ 2,148,000	$ 2,363,000	$ 2,404,000

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs														
100	Salaries & Wages							$ -	$ -	$ 100,000	$ 103,000	$ 106,000	$ 109,000	$ 112,000
200	Services							-	-	-	-	-	-	-
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Public Affairs								$ -	$ -	$ 100,000	$ 103,000	$ 106,000	$ 109,000	$ 112,000
PWD Operating and Maintenance Expenses Adjustments Summary														
100	Salaries & Wages							$ -	$ -	$ 1,802,000	$ 2,064,000	$ 2,954,000	$ 2,978,000	$ 2,777,000
200	Services							-	4,000,000	9,165,000	6,273,000	5,121,000	4,628,000	4,024,000
220	Power							-	-	-	-	-	-	-
2xx	SMIP/GARP							2,000,000	-	3,550,000	3,550,000	3,550,000	3,550,000	3,550,000
300	Materials and Supplies							-	-	450,000	666,000	787,000	916,000	938,000
307	Chemicals							-	-	-	-	-	-	-
400	Equipment							-	-	125,000	125,000	130,000	135,000	140,000
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	1,800,000	3,500,000	-	-	-
Total PWD Operating and Maintenance Expenses Adjustments Summary								**$ 2,000,000**	**$ 4,000,000**	**$ 16,892,000**	**$ 16,178,000**	**$ 12,542,000**	**$ 12,207,000**	**$ 11,429,000**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
PWD Adjusted O&M														**Direct O&M - 3**
Human Resources and Administration														
100	Salaries & Wages		$ 7,003,220	$ 6,782,159	$ 6,591,224	$ 6,911,366	$ 7,650,763	$ 8,502,816	$ 8,815,500	$ 9,454,965	$ 9,738,364	$ 10,030,935	$ 10,331,923	$ 10,641,581
200	Services		1,725,940	1,856,758	2,676,000	2,019,108	3,277,947	4,562,319	3,967,655	5,106,523	5,285,252	5,470,010	5,660,976	5,859,330
300	Materials and Supplies		550,431	579,242	474,539	575,822	632,835	725,233	792,493	808,342	824,509	840,999	857,819	874,976
400	Equipment		67,500	24,547	111,049	46,389	140,816	413,078	691,110	706,660	722,559	738,817	755,440	772,438
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration			$ 9,347,091	$ 9,242,706	$ 9,852,812	$ 9,552,685	$ 11,702,361	$ 14,203,446	$ 14,266,757	$ 16,076,490	$ 16,570,684	$ 17,080,762	$ 17,606,158	$ 18,148,324
Finance														
100	Salaries & Wages		$ 1,186,788	$ 1,393,850	$ 1,388,706	$ 1,472,571	$ 1,849,144	$ 2,170,853	$ 2,550,200	$ 2,682,706	$ 2,763,507	$ 2,846,672	$ 2,932,273	$ 3,020,381
200	Services		5,044,204	10,311,521	9,206,767	5,577,954	4,366,100	4,811,153	7,767,322	9,104,178	5,928,649	6,091,897	6,261,088	6,435,396
2xx	SMIP/GARP		-	-	5,025,000	4,925,776	5,020,143	13,598,134	11,450,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies		458,592	661,729	598,960	383,299	124,596	23,023	22,226	22,671	23,124	23,587	24,059	24,540
400	Equipment		(53,111)	86,002	527,642	244,778	521,252	-	24,489	25,040	25,604	26,180	26,769	27,371
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		9,498,869	7,754,262	9,074,729	10,792,914	7,714,419	6,244,621	6,545,139	8,541,493	10,443,738	7,152,050	7,366,611	7,587,610
Subtotal Finance			$ 16,135,342	$ 20,207,364	$ 25,821,804	$ 23,397,293	$ 19,595,654	$ 26,847,784	$ 28,359,376	$ 35,376,088	$ 34,184,622	$ 31,140,386	$ 31,610,799	$ 32,095,298
Planning and Engineering														
100	Salaries & Wages		$ 1,323,931	$ 1,449,595	$ 1,028,722	$ 1,057,108	$ 1,043,846	$ 1,199,514	$ 1,225,000	$ 1,761,750	$ 1,814,603	$ 1,868,591	$ 1,924,748	$ 1,982,111
200	Services		301,450	528,000	259,551	235,838	155,719	297,188	198,765	805,722	833,922	863,374	894,087	925,070
300	Materials and Supplies		134,435	147,000	133,233	191,888	105,252	102,067	143,010	145,870	148,787	151,763	154,798	157,894
400	Equipment		54,497	228,000	28,435	30,333	27,449	14,614	10,938	11,184	11,436	11,693	11,956	12,225
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning and Engineering			$ 1,814,313	$ 2,352,595	$ 1,449,941	$ 1,515,167	$ 1,332,266	$ 1,613,383	$ 1,577,713	$ 2,724,526	$ 2,808,748	$ 2,895,421	$ 2,985,590	$ 3,077,301
Operations														
100	Salaries & Wages		$ 63,510,492	$ 62,637,659	$ 62,092,417	$ 63,390,240	$ 65,710,338	$ 71,789,745	$ 74,515,100	$ 76,750,553	$ 79,103,070	$ 82,136,662	$ 84,355,402	$ 86,596,424
200	Services		46,195,838	44,989,464	49,900,039	53,779,374	55,165,835	55,277,653	57,483,011	61,254,916	63,501,238	64,224,442	65,879,077	67,498,785
220	Power		20,191,277	27,311,199	24,841,360	24,375,674	21,440,579	20,427,534	22,474,933	22,474,933	23,036,807	23,612,727	24,203,045	24,808,121
300	Materials and Supplies		12,986,710	12,662,984	15,651,859	16,475,057	14,625,464	14,703,881	15,999,264	16,769,249	17,311,634	17,765,547	18,234,118	18,602,480
307	Chemicals		21,927,884	19,400,817	20,239,205	22,602,203	24,446,114	22,324,969	22,170,391	22,902,014	23,657,780	24,438,487	25,244,957	26,078,041
400	Equipment		953,855	549,906	1,356,406	994,870	1,172,215	1,219,613	1,197,193	1,349,130	1,376,673	1,409,835	1,443,632	1,478,076
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Operations			$ 165,766,056	$ 167,552,029	$ 174,081,286	$ 181,617,418	$ 182,560,545	$ 185,743,395	$ 193,839,893	$ 201,500,796	$ 207,987,202	$ 213,587,700	$ 219,360,231	$ 225,061,927
Planning & Environmental Services														
100	Salaries & Wages		$ 8,578,791	$ 8,437,905	$ 9,163,710	$ 10,315,992	$ 11,080,774	$ 12,135,854	$ 13,024,700	$ 14,186,441	$ 14,769,904	$ 15,380,441	$ 16,022,415	$ 16,503,197
200	Services		15,280,610	15,276,152	16,447,254	18,442,417	17,411,374	22,388,075	24,012,455	25,452,891	26,522,742	27,623,038	28,554,845	29,519,264
300	Materials and Supplies		908,893	903,646	962,010	867,520	1,015,983	989,788	1,039,725	1,060,519	1,081,730	1,103,364	1,125,432	1,147,940
400	Equipment		591,429	672,252	55,839	470,735	556,793	187,954	432,131	441,854	451,796	461,962	472,356	482,984
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning & Environmental Services			$ 25,359,723	$ 25,289,955	$ 26,628,813	$ 30,096,664	$ 30,064,924	$ 35,701,671	$ 38,509,011	$ 41,141,706	$ 42,826,172	$ 44,568,805	$ 46,175,046	$ 47,653,385

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs														
100	Salaries & Wages		$ 1,756,193	$ 1,803,302	$ 2,110,095	$ 2,110,697	$ 2,260,265	$ 2,644,067	$ 2,831,100	$ 3,016,033	$ 3,106,514	$ 3,199,619	$ 3,295,428	$ 3,394,021
200	Services		2,516,445	3,091,251	4,525,982	6,591,039	7,244,654	8,001,034	8,158,089	8,443,622	8,739,149	9,045,019	9,361,595	9,689,250
300	Materials and Supplies		229,644	221,111	206,542	219,959	168,011	156,358	192,257	196,102	200,024	204,025	208,105	212,267
400	Equipment		3,788	3,293	2,688	17,734	1,134	13,757	10,875	11,120	11,370	11,626	11,887	12,155
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Affairs			$ 4,506,070	$ 5,118,957	$ 6,845,307	$ 8,939,429	$ 9,674,064	$ 10,815,216	$ 11,192,321	$ 11,666,877	$ 12,057,057	$ 12,460,289	$ 12,877,015	$ 13,307,693
PWD Operating and Maintenance Expenses Summary														
100	Salaries & Wages		$ 83,359,415	$ 82,504,470	$ 82,374,874	$ 85,257,975	$ 89,595,130	$ 98,442,849	$ 102,961,600	$ 107,852,448	$ 111,295,961	$ 115,462,920	$ 118,862,188	$ 122,137,714
200	Services		71,064,487	76,053,146	83,015,593	86,645,730	87,621,629	95,337,422	101,587,297	110,167,852	110,810,952	113,317,780	116,611,668	119,927,096
220	Power		20,191,277	27,311,199	24,841,360	24,375,674	21,440,579	20,427,534	22,474,933	22,474,933	23,036,807	23,612,727	24,203,045	24,808,121
2xx	SMIP/GARP		-	-	5,025,000	4,925,776	5,020,143	13,598,134	11,450,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies		15,268,705	15,175,712	18,027,143	18,713,545	16,672,141	16,700,350	18,188,975	19,002,754	19,589,809	20,089,285	20,604,331	21,020,098
307	Chemicals		21,927,884	19,400,817	20,239,205	22,602,203	24,446,114	22,324,969	22,170,391	22,902,014	23,657,780	24,438,487	25,244,957	26,078,041
400	Equipment		1,617,958	1,564,000	2,082,059	1,804,839	2,419,659	1,849,016	2,366,736	2,544,988	2,599,438	2,660,112	2,722,040	2,785,248
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		9,498,869	7,754,262	9,074,729	10,792,914	7,714,419	6,244,621	6,545,139	8,541,493	10,443,738	7,152,050	7,366,611	7,587,610
Total PWD Operating and Maintenance Expenses Summary			**$ 222,928,595**	**$ 229,763,606**	**$ 244,679,963**	**$ 255,118,655**	**$ 254,929,814**	**$ 274,924,895**	**$ 287,745,071**	**$ 308,486,482**	**$ 316,434,485**	**$ 321,733,362**	**$ 330,614,840**	**$ 339,343,927**
PWD Operating and Maintenance Expenses Summary - Annual Increase														
100	Salaries & Wages			-1.03%	-0.16%	3.50%	5.09%	9.88%	4.59%	4.75%	3.19%	3.74%	2.94%	2.76%
200	Services			7.02%	9.15%	4.37%	1.13%	8.81%	6.56%	8.45%	0.58%	2.26%	2.91%	2.84%
220	Power			35.26%	-9.04%	-1.87%	-12.04%	-4.72%	10.02%	0.00%	2.50%	2.50%	2.50%	2.50%
2xx	SMIP/GARP					-1.97%	1.92%	170.87%	-15.80%	31.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies			-0.61%	18.79%	3.81%	-10.91%	0.17%	8.91%	4.47%	3.09%	2.55%	2.56%	2.02%
307	Chemicals			-11.52%	4.32%	11.68%	8.16%	-8.68%	-0.69%	3.30%	3.30%	3.30%	3.30%	3.30%
400	Equipment			-3.33%	33.12%	-13.31%	34.07%	-23.58%	28.00%	7.53%	2.14%	2.33%	2.33%	2.32%
500	Contributions													
800	Transfers			-18.37%	17.03%	18.93%	-28.52%	-19.05%	4.81%	30.50%	22.27%	-31.52%	3.00%	3.00%
Total PWD Operating and Maintenance Expenses Summary - Annual Increase				3.07%	6.49%	4.27%	-0.07%	7.84%	4.66%	7.21%	2.58%	1.67%	2.76%	2.64%
PWD Operating and Maintenance Expenses Summary - 3 Year Average Increase														
100	Salaries & Wages					0.75%	2.79%	6.12%	6.49%	6.38%	4.18%	3.89%	3.29%	3.15%
200	Services					6.83%	4.83%	4.72%	5.45%	7.93%	5.14%	3.71%	1.91%	2.67%
220	Power					6.48%	-7.75%	-6.31%	-2.67%	1.58%	4.09%	1.66%	2.50%	2.50%
2xx	SMIP/GARP							39.35%	32.47%	44.03%	3.32%	9.42%	0.00%	0.00%
300	Materials and Supplies					7.02%	3.18%	-2.52%	-0.94%	4.46%	5.46%	3.37%	2.73%	2.38%
307	Chemicals					1.01%	8.01%	3.32%	-0.64%	-2.15%	1.95%	3.30%	3.30%	3.30%
400	Equipment					3.71%	15.66%	-3.88%	9.46%	1.70%	12.02%	3.97%	2.27%	2.33%
500	Contributions													
800	Transfers					4.35%	-0.17%	-11.71%	-15.36%	3.45%	18.70%	3.00%	-4.81%	-10.10%
Total PWD Operating and Maintenance Expenses Summary - 3 Year Average Increase						4.60%	3.53%	3.96%	4.09%	6.56%	4.80%	3.79%	2.34%	2.36%

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Water System O&M														**Direct O&M - 4**
Human Resources and Administration														
100	Salaries & Wages							$ 2,635,873	$ 2,732,805	$ 2,931,039	$ 3,018,893	$ 3,109,590	$ 3,202,896	$ 3,298,890
200	Services							1,414,319	1,229,973	1,583,022	1,638,428	1,695,703	1,754,902	1,816,392
300	Materials and Supplies							224,822	245,673	250,586	255,598	260,710	265,924	271,242
400	Equipment							128,054	214,244	219,064	223,993	229,033	234,187	239,456
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Human Resources and Administration								$ 4,403,068	$ 4,422,695	$ 4,983,711	$ 5,136,912	$ 5,295,036	$ 5,457,909	$ 5,625,980
Finance														
100	Salaries & Wages							$ 824,924	$ 969,076	$ 1,019,428	$ 1,050,133	$ 1,081,736	$ 1,114,264	$ 1,147,745
200	Services							1,828,238	3,191,582	3,683,182	2,286,633	2,400,144	2,464,514	2,530,817
2xx	SMIP & GARP							-	-	-	-	-	-	-
300	Materials and Supplies							8,749	8,446	8,615	8,787	8,963	9,142	9,325
400	Equipment							-	9,306	9,515	9,729	9,948	10,172	10,401
500	Contributions							-	-	-	-	-	-	-
800	Transfers							2,248,064	2,356,250	2,426,938	2,499,746	2,574,738	2,651,980	2,731,539
Subtotal Finance								$ 4,909,975	$ 6,534,660	$ 7,147,678	$ 5,855,028	$ 6,075,529	$ 6,250,072	$ 6,429,827
Planning and Engineering														
100	Salaries & Wages							$ 479,806	$ 490,000	$ 704,700	$ 725,841	$ 747,436	$ 769,899	$ 792,844
200	Services							118,875	79,506	322,289	333,569	345,350	357,635	370,028
300	Materials and Supplies							40,827	57,204	58,348	59,515	60,705	61,919	63,158
400	Equipment							5,846	4,375	4,474	4,574	4,677	4,783	4,890
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Planning and Engineering								$ 645,354	$ 631,085	$ 1,089,811	$ 1,123,499	$ 1,158,168	$ 1,194,236	$ 1,230,920
Operations														
100	Salaries & Wages							$ 31,365,861	$ 32,556,604	$ 33,533,302	$ 34,564,493	$ 35,883,222	$ 36,834,805	$ 37,791,264
200	Services							10,684,491	11,110,759	11,839,822	12,338,452	12,371,623	12,533,208	12,609,034
220	Power							9,933,159	10,928,734	10,928,734	11,201,952	11,482,001	11,769,051	12,063,278
300	Materials and Supplies							6,435,707	7,002,680	7,339,693	7,577,088	7,775,760	7,980,848	8,142,076
307	Chemicals							19,130,461	18,998,001	19,624,935	20,233,098	20,858,512	21,502,429	22,209,207
400	Equipment							719,355	706,131	795,747	811,992	831,552	851,486	871,802
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Operations								$ 78,269,034	$ 81,302,909	$ 84,062,233	$ 86,727,075	$ 89,202,670	$ 91,471,827	$ 93,686,661
Planning & Environmental Services														
100	Salaries & Wages							$ 3,967,409	$ 4,257,988	$ 4,637,780	$ 4,828,524	$ 5,028,118	$ 5,237,990	$ 5,395,165
200	Services							8,336,447	8,941,303	9,477,665	9,876,036	10,285,743	10,632,711	10,991,824
300	Materials and Supplies							395,915	415,890	424,208	432,692	441,346	450,173	459,176
400	Equipment							75,182	172,853	176,742	180,718	184,785	188,942	193,193
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Planning & Environmental Services								$ 12,774,953	$ 13,788,034	$ 14,716,395	$ 15,317,970	$ 15,939,992	$ 16,509,816	$ 17,039,358

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs														
100	Salaries & Wages							$ 1,322,034	$ 1,415,550	$ 1,508,017	$ 1,553,257	$ 1,599,810	$ 1,647,714	$ 1,697,010
200	Services							3,756,399	3,830,135	3,964,189	4,102,936	4,246,539	4,395,167	4,548,998
300	Materials and Supplies							78,179	96,129	98,051	100,012	102,012	104,053	106,134
400	Equipment							6,879	5,437	5,560	5,685	5,813	5,944	6,077
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Public Affairs								$ 5,163,491	$ 5,347,251	$ 5,575,817	$ 5,761,890	$ 5,954,174	$ 6,152,878	$ 6,358,219
Water System Operating and Maintenance Expenses Summary														
100	Salaries & Wages							$ 40,595,907	$ 42,422,023	$ 44,334,266	$ 45,741,141	$ 47,449,912	$ 48,807,568	$ 50,122,918
200	Services							26,138,769	28,383,258	30,870,169	30,576,054	31,345,102	32,138,137	32,867,093
220	Power							9,933,159	10,928,734	10,928,734	11,201,952	11,482,001	11,769,051	12,063,278
2xx	SMIP/GARP							-	-	-	-	-	-	-
300	Materials and Supplies							7,184,199	7,826,022	8,179,501	8,433,692	8,649,496	8,872,059	9,051,111
307	Chemicals							19,130,461	18,998,001	19,624,935	20,233,098	20,858,512	21,502,429	22,209,207
400	Equipment							935,316	1,112,346	1,211,102	1,236,691	1,265,808	1,295,514	1,325,819
500	Contributions							-	-	-	-	-	-	-
800	Transfers							2,248,064	2,356,250	2,426,938	2,499,746	2,574,738	2,651,980	2,731,539
Total Water System Operating and Maintenance Expenses Summary								**$ 106,165,875**	**$ 112,026,634**	**$ 117,575,645**	**$ 119,922,374**	**$ 123,625,569**	**$ 127,036,738**	**$ 130,370,965**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Wastewater System O&M														**Direct O&M - 5**
Human Resources and Administration														
100	Salaries & Wages							$ 5,866,943	$ 6,082,695	$ 6,523,926	$ 6,719,471	$ 6,921,345	$ 7,129,027	$ 7,342,691
200	Services							3,148,000	2,737,682	3,523,501	3,646,824	3,774,307	3,906,074	4,042,938
300	Materials and Supplies							500,411	546,820	557,756	568,911	580,289	591,895	603,734
400	Equipment							285,024	476,866	487,596	498,566	509,784	521,253	532,982
500	Contributions							-	-	-	-	-	-	-
800	Transfers							0	0	0	0	0	0	0
Subtotal Human Resources and Administration								$ 9,800,378	$ 9,844,062	$ 11,092,779	$ 11,433,772	$ 11,785,726	$ 12,148,249	$ 12,522,344
Finance														
100	Salaries & Wages							$ 1,345,929	$ 1,581,124	$ 1,663,278	$ 1,713,374	$ 1,764,936	$ 1,818,009	$ 1,872,636
200	Services							2,982,915	4,575,740	5,420,996	3,642,016	3,691,753	3,796,574	3,904,579
2xx	SMIP & GARP							13,598,134	11,450,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies							14,274	13,780	14,056	14,337	14,624	14,917	15,215
400	Equipment							-	15,183	15,525	15,875	16,232	16,597	16,970
500	Contributions							-	-	-	-	-	-	-
800	Transfers							3,996,557	4,188,889	6,114,555	7,943,992	4,577,312	4,714,631	4,856,071
Subtotal Finance								$ 21,937,809	$ 21,824,716	$ 28,228,410	$ 28,329,594	$ 25,064,857	$ 25,360,727	$ 25,665,471
Planning and Engineering														
100	Salaries & Wages							$ 719,708	$ 735,000	$ 1,057,050	$ 1,088,762	$ 1,121,155	$ 1,154,849	$ 1,189,267
200	Services							178,313	119,259	483,433	500,353	518,024	536,452	555,042
300	Materials and Supplies							61,240	85,806	87,522	89,272	91,058	92,879	94,736
400	Equipment							8,768	6,563	6,710	6,862	7,016	7,173	7,335
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Planning and Engineering								$ 968,029	$ 946,628	$ 1,634,715	$ 1,685,249	$ 1,737,253	$ 1,791,354	$ 1,846,381
Operations														
100	Salaries & Wages							$ 40,423,884	$ 41,958,496	$ 43,217,251	$ 44,538,577	$ 46,253,440	$ 47,520,597	$ 48,805,160
200	Services							44,593,162	46,372,252	49,415,094	51,162,786	51,852,819	53,345,869	54,889,751
220	Power							10,494,375	11,546,199	11,546,199	11,834,855	12,130,726	12,433,994	12,744,843
300	Materials and Supplies							8,268,174	8,996,584	9,429,556	9,734,546	9,989,787	10,253,270	10,460,404
307	Chemicals							3,194,508	3,172,390	3,277,079	3,424,682	3,579,975	3,742,528	3,868,834
400	Equipment							500,258	491,062	553,383	564,681	578,283	592,146	606,274
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Operations								$ 107,474,361	$ 112,536,984	$ 117,438,563	$ 121,260,127	$ 124,385,030	$ 127,888,404	$ 131,375,266
Planning & Environmental Services														
100	Salaries & Wages							$ 8,168,445	$ 8,766,712	$ 9,548,661	$ 9,941,380	$ 10,352,323	$ 10,784,425	$ 11,108,032
200	Services							14,051,628	15,071,152	15,975,226	16,646,706	17,337,295	17,922,134	18,527,440
300	Materials and Supplies							593,873	623,835	636,311	649,038	662,018	675,259	688,764
400	Equipment							112,772	259,278	265,112	271,078	277,177	283,414	289,791
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Planning & Environmental Services								$ 22,926,718	$ 24,720,977	$ 26,425,311	$ 27,508,202	$ 28,628,813	$ 29,665,230	$ 30,614,027

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs														
100	Salaries & Wages							$ 1,322,033	$ 1,415,550	$ 1,508,016	$ 1,553,257	$ 1,599,809	$ 1,647,714	$ 1,697,011
200	Services							4,244,635	4,327,954	4,479,433	4,636,213	4,798,480	4,966,428	5,140,252
300	Materials and Supplies							78,179	96,128	98,051	100,012	102,013	104,052	106,133
400	Equipment							6,878	5,438	5,560	5,685	5,813	5,943	6,078
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Public Affairs								$ 5,651,725	$ 5,845,070	$ 6,091,060	$ 6,295,167	$ 6,506,115	$ 6,724,137	$ 6,949,474
Wastewater System Operating and Maintenance Expenses Summary														
100	Salaries & Wages							$ 57,846,942	$ 60,539,577	$ 63,518,182	$ 65,554,820	$ 68,013,008	$ 70,054,620	$ 72,014,796
200	Services							69,198,653	73,204,039	79,297,683	80,234,898	81,972,678	84,473,531	87,060,003
220	Power							10,494,375	11,546,199	11,546,199	11,834,855	12,130,726	12,433,994	12,744,843
2xx	SMIP/GARP							13,598,134	11,450,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies							9,516,151	10,362,953	10,823,253	11,156,117	11,439,789	11,732,272	11,968,987
307	Chemicals							3,194,508	3,172,390	3,277,079	3,424,682	3,579,975	3,742,528	3,868,834
400	Equipment							913,700	1,254,390	1,333,886	1,362,747	1,394,304	1,426,526	1,459,429
500	Contributions							-	-	-	-	-	-	-
800	Transfers							3,996,557	4,188,889	6,114,555	7,943,992	4,577,312	4,714,631	4,856,071
Total Wastewater System Operating and Maintenance Expenses Summary								**$ 168,759,020**	**$ 175,718,437**	**$ 190,910,838**	**$ 196,512,111**	**$ 198,107,793**	**$ 203,578,102**	**$ 208,972,962**

Cost Center/Expense Class	Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Allocation of Wastewater Costs to WTP Sludge													**Direct O&M - 6**
Allocation of Wastewater Costs to WTP Sludge (Linked to SCOS Model)							$ 10,447,550	$ 10,453,302	$ 10,951,693	$ 11,677,838	$ 12,308,651	$ 12,997,941	$ 14,040,883
Annual Increase								0.06%	4.77%	6.63%	5.40%	5.60%	8.02%
Wastewater - Operations O&M Growth								4.71%	4.36%	3.25%	2.58%	2.82%	2.73%
Wastewater O&M Growth								4.12%	8.65%	2.93%	0.81%	2.76%	2.65%
Liquidated Encumbrances													**Direct O&M - 7**
Class 200 & Class 300 Costs		$ 128,452,353	$ 137,940,874	$ 151,148,301	$ 157,262,927	$ 155,200,606	$ 168,388,409	$ 175,871,596	$ 189,547,554	$ 192,095,348	$ 196,458,280	$ 201,664,001	$ 206,833,356
Water							$ 62,386,588	$ 66,136,015	$ 69,603,339	$ 70,444,796	$ 72,335,111	$ 74,281,676	$ 76,190,689
Sewer							$ 106,001,821	$ 109,735,581	$ 119,944,215	$ 121,650,552	$ 124,123,169	$ 127,382,325	$ 130,642,667
Liquidated Encumbrances		22,707,000	22,225,000	20,802,000	31,148,000	37,436,342	23,411,000	21,104,592	22,745,706	23,051,442	23,574,994	24,199,680	24,820,003
Water Allocation							9,364,400	8,441,837	9,098,283	9,220,577	9,429,997	9,679,872	9,928,001
Sewer Allocation							14,046,600	12,662,755	13,647,424	13,830,865	14,144,996	14,519,808	14,892,002
Direct Expenses Net of Liquidated Encumbrances		200,221,595	207,538,606	223,877,963	223,970,655	217,493,472	251,513,895	266,640,479	285,740,776	293,383,043	298,158,369	306,415,160	314,523,925
Water Allocation							96,801,475	103,584,797	108,477,362	110,701,797	114,195,572	117,356,866	120,442,964
Sewer Allocation							154,712,420	163,055,682	177,263,414	182,681,246	183,962,797	189,058,294	194,080,961
Net Expense Ratio													
Water							85.0%	87.2%	86.9%	86.9%	87.0%	87.0%	87.0%
Sewer							86.7%	88.5%	88.6%	88.6%	88.6%	88.6%	88.6%

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation Finance & Admin														**Direct O&M - 8**
								Adjustments						
Finance														
Class 100 - xxxxxxxxxx	-													
Class 100 - All Other	2,550,200													
Class 100 - Total	2,550,200							-	-	-	-	-	-	-
Class 200 - Residential Sto	-													
Class 200 - Non-Res Storr	-													
Class 200 - Wastewater C	-													
Class 200 - Green Initiativ	-													
Class 200 - Customer (Gra	-							-	7,748,210	7,486,193	2,296,489	2,218,830	2,143,797	2,071,302
Class 200 - Customer (Bas	-									1,871,548	1,808,259			
Class 200 - All Other	7,297,500									(1,871,548)	(1,808,259)			
Class 200 - Total	7,297,500							-	7,748,210	7,486,193	2,296,489	2,218,830	2,143,797	2,071,302
Class 2xx - xxxxxxxxxx	11,450,000							2,000,000	-	3,550,000	3,550,000	3,550,000	3,550,000	3,550,000
Class 2xx - All Other	-													
Class 2xx - Total (SMIP & (	11,450,000							2,000,000	-	3,550,000	3,550,000	3,550,000	3,550,000	3,550,000
Class 300 - xxxxxxxxxx	-													
Class 300 - All Other	86,200													
Class 300 - Total	86,200							-	-	-	-	-	-	-
Class 400 - xxxxxxxxxx	-													
Class 400 - All Other	37,800													
Class 400 - Total	37,800							-	-	-	-	-	-	-
Class 500 - xxxxxxxxxx	-													
Class 500 - All Other	0													
Class 500 - Total	0							-	-	-	-	-	-	-
Class 800 - xxxxxxxxxx	-													
Class 800 - All Other	10,537,000													
Class 800 - Total	10,537,000							-	-	-	-	-	-	-
Subtotal Finance	31,958,700							2,000,000	7,748,210	11,036,193	5,846,489	5,768,830	5,693,797	5,621,302

Cost Center/Expense Class	Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Finance													
Class 100 - xxxxxxxxxx							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%	51.50%	50.64%	23.94%	23.32%	22.71%	22.11%
Class 200 - Customer (Basis2)							0.00%	0.00%	12.66%	18.85%	0.00%	0.00%	0.00%
Class 200 - All Other							100.00%	48.50%	36.70%	57.22%	76.68%	77.29%	77.89%
Class 200 - Total							100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Class 2xx - xxxxxxxxxx							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 - xxxxxxxxxx							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 - xxxxxxxxxx							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Class 400 - All Other							100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Class 400 - Total							100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Class 500 - xxxxxxxxxx							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Class 500 - All Other							100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Class 500 - Total							100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Class 800 - xxxxxxxxxx							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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation of Operations Class 100														**Direct O&M - 9**
								Adjustments						
Water Direct Costs														
Baxter Treatment Plant	3,006,109													
Queen Lane Treatment Pla	2,933,704													
Belmont Treatment Plant	2,946,796													
Conveyance Headquarters	-													
Load Control	1,690,029													
Distribution	14,163,159													
Pumping (b)	2,491,856													
Emergency & Support Serv	-													
Sewer Direct Costs														
Biosolids Engr Services	-													
Biosolids Utilization	-													
Biosolids Processing	-													
NEWPCP	6,463,364													
SWWPCP	6,531,210													
SEWPCP	3,617,585													
Industrial Waste	1,169,123													
Sewer Maintenance	9,361,864													
Inlet Cleaning	4,624,570													
Interceptors/Flow Control	3,973,671													
Data & Flow Control	-													
Collector System Support	892,159													
Allocated Costs														
Treatment Headquarters (5	424,505													
Machine Shops (50/50)	-													
Building Maintenance (50/	-													
Security (50/50)	-													
Operations Admin/Delinqu	4,666,927													
Materials Management (50	1,707,657													
Customer Service (50/50)	1,391,789													
Warranty Program	-													
Meter Shop (50/50)	2,459,023							-	-	-	50,000	(48,000)	(295,000)	(593,000)
Automotive Maintenance (	-													
Total	74,515,100							-	-	-	50,000	(48,000)	(295,000)	(593,000)

Cost Center/Expense Class	Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Water Direct Costs													
Baxter Treatment Plant							4.03%	4.03%	4.03%	4.03%	4.04%	4.05%	4.07%
Queen Lane Treatment Plant							3.94%	3.94%	3.94%	3.93%	3.94%	3.95%	3.97%
Belmont Treatment Plant							3.95%	3.95%	3.95%	3.95%	3.96%	3.97%	3.99%
Conveyance Headquarters							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control							2.27%	2.27%	2.27%	2.27%	2.27%	2.28%	2.29%
Distribution							19.01%	19.01%	19.01%	18.99%	19.02%	19.08%	19.16%
Pumping (b)							3.34%	3.34%	3.34%	3.34%	3.35%	3.36%	3.37%
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							8.67%	8.67%	8.67%	8.67%	8.68%	8.71%	8.74%
SWWPCP							8.76%	8.76%	8.76%	8.76%	8.77%	8.80%	8.84%
SEWPCP							4.85%	4.85%	4.85%	4.85%	4.86%	4.87%	4.89%
Industrial Waste							1.57%	1.57%	1.57%	1.57%	1.57%	1.58%	1.58%
Sewer Maintenance							12.56%	12.56%	12.56%	12.56%	12.57%	12.61%	12.66%
Inlet Cleaning							6.21%	6.21%	6.21%	6.20%	6.21%	6.23%	6.26%
Interceptors/Flow Control							5.33%	5.33%	5.33%	5.33%	5.34%	5.35%	5.38%
Data & Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Collector System Support							1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.21%
Allocated Costs													
Treatment Headquarters (50/50)							0.57%	0.57%	0.57%	0.57%	0.57%	0.57%	0.57%
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)							6.26%	6.26%	6.26%	6.26%	6.27%	6.29%	6.31%
Materials Management (50/50)							2.29%	2.29%	2.29%	2.29%	2.29%	2.30%	2.31%
Customer Service (50/50)							1.87%	1.87%	1.87%	1.87%	1.87%	1.88%	1.88%
Warranty Program							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)							3.30%	3.30%	3.30%	3.36%	3.24%	2.92%	2.52%
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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation of Operations Power														**Direct O&M - 10**
								Adjustments						
Water Direct Costs														
Baxter Treatment Plant	125,000													
Queen Lane Treatment Pla	80,000													
Belmont Treatment Plant	65,000													
Conveyance Headquarters	-													
Load Control	1,300,000													
Distribution	-													
Pumping (b)	-													
Emergency & Support Serv	-													
Sewer Direct Costs														
Biosolids Engr Services	-													
Biosolids Utilization	-													
Biosolids Processing	200,000													
NEWPCP	400,000													
SWWPCP	725,000													
SEWPCP	210,000													
Industrial Waste	-													
Sewer Maintenance	100,000													
Inlet Cleaning	-													
Interceptors/Flow Control	700,000													
Data & Flow Control	-													
Collector System Support	-													
Allocated Costs														
Treatment Headquarters (5	-													
Machine Shops (50/50)	-													
Building Maintenance (50/	-													
Security (50/50)	-													
Operations Admin/Delinqu	23,940,000													
Materials Management (50	-													
Customer Service (50/50)	-													
Warranty Program	-													
Meter Shop (50/50)	-													
Automotive Maintenance (	-													
Total	27,845,000							-	-	-	-	-	-	-

Cost Center/Expense Class	Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Water Direct Costs													
Baxter Treatment Plant							0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%
Queen Lane Treatment Plant							0.29%	0.29%	0.29%	0.29%	0.29%	0.29%	0.29%
Belmont Treatment Plant							0.23%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%
Conveyance Headquarters							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control							4.67%	4.67%	4.67%	4.67%	4.67%	4.67%	4.67%
Distribution							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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							0.72%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%
NEWPCP							1.44%	1.44%	1.44%	1.44%	1.44%	1.44%	1.44%
SWWPCP							2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
SEWPCP							0.75%	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%
Industrial Waste							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sewer Maintenance							0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%
Inlet Cleaning							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interceptors/Flow Control							2.51%	2.51%	2.51%	2.51%	2.51%	2.51%	2.51%
Data & Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Collector System Support							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allocated Costs													
Treatment Headquarters (50/50)							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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)							85.98%	85.98%	85.98%	85.98%	85.98%	85.98%	85.98%
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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation of Operations Class 200 Excl. Power														**Direct O&M - 11**
								Adjustments						
Water Direct Costs														
Baxter Treatment Plant	1,421,000													
Queen Lane Treatment Pla	974,000													
Belmont Treatment Plant	483,000													
Conveyance Headquarters	-													
Load Control	1,386,000													
Distribution	1,146,000													
Pumping (b)	418,000													
Emergency & Support Serv	-													
Sewer Direct Costs														
Biosolids Engr Services	-													
Biosolids Utilization	-													
Biosolids Processing	24,635,000													
NEWPCP	10,545,000													
SWWPCP	2,868,000													
SEWPCP	979,000													
Industrial Waste	62,000													
Sewer Maintenance	3,005,300													
Inlet Cleaning	45,400													
Interceptors/Flow Control	3,593,000													
Data & Flow Control	-													
Collector System Support	8,200													
Allocated Costs														
Treatment Headquarters (5	263,000													
Machine Shops (50/50)	-													
Building Maintenance (50/	-													
Security (50/50)	-													
Operations Admin/Delinqu	7,078,800													
Materials Management (50	225,000													
Customer Service (50/50)	3,705,000													
Warranty Program	-													
Meter Shop (50/50)	2,225,000							-	-	-	216,000	(139,000)	(639,000)	(1,347,000)
Automotive Maintenance (	-													
Total	65,065,700							-	-	-	216,000	(139,000)	(639,000)	(1,347,000)

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Water Direct Costs													
Baxter Treatment Plant							2.18%	2.18%	2.18%	2.18%	2.19%	2.21%	2.23%
Queen Lane Treatment Plant							1.50%	1.50%	1.50%	1.49%	1.50%	1.51%	1.53%
Belmont Treatment Plant							0.74%	0.74%	0.74%	0.74%	0.74%	0.75%	0.76%
Conveyance Headquarters							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control							2.13%	2.13%	2.13%	2.12%	2.13%	2.15%	2.18%
Distribution							1.76%	1.76%	1.76%	1.76%	1.77%	1.78%	1.80%
Pumping (b)							0.64%	0.64%	0.64%	0.64%	0.64%	0.65%	0.66%
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							37.86%	37.86%	37.86%	37.74%	37.94%	38.24%	38.66%
NEWPCP							16.21%	16.21%	16.21%	16.15%	16.24%	16.37%	16.55%
SWWPCP							4.41%	4.41%	4.41%	4.39%	4.42%	4.45%	4.50%
SEWPCP							1.50%	1.50%	1.50%	1.50%	1.51%	1.52%	1.54%
Industrial Waste							0.10%	0.10%	0.10%	0.09%	0.10%	0.10%	0.10%
Sewer Maintenance							4.62%	4.62%	4.62%	4.60%	4.63%	4.66%	4.72%
Inlet Cleaning							0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%
Interceptors/Flow Control							5.52%	5.52%	5.52%	5.50%	5.53%	5.58%	5.64%
Data & Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Collector System Support							0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
Allocated Costs													
Treatment Headquarters (50/50)							0.40%	0.40%	0.40%	0.40%	0.41%	0.41%	0.41%
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)							10.88%	10.88%	10.88%	10.84%	10.90%	10.99%	11.11%
Materials Management (50/50)							0.35%	0.35%	0.35%	0.34%	0.35%	0.35%	0.35%
Customer Service (50/50)							5.69%	5.69%	5.69%	5.68%	5.71%	5.75%	5.81%
Warranty Program							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)							3.42%	3.42%	3.42%	3.74%	3.21%	2.46%	1.38%
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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation of Operations Chemicals														**Direct O&M - 12**
								Adjustments						
Water Direct Costs														
Baxter Treatment Plant	9,406,400													
Queen Lane Treatment Pla	5,306,000													
Belmont Treatment Plant	4,575,000													
Conveyance Headquarters	-													
Load Control	-													
Distribution	34,000													
Pumping (b)	3,000													
Emergency & Support Serv	-													
Sewer Direct Costs														
Biosolids Engr Services	-													
Biosolids Utilization	-													
Biosolids Processing	-													
NEWPCP	778,000													
SWWPCP	465,000													
SEWPCP	450,000													
Industrial Waste	3,100													
Sewer Maintenance	10,300													
Inlet Cleaning	-													
Interceptors/Flow Control	1,503,000													
Data & Flow Control	-													
Collector System Support	-													
Allocated Costs														
Treatment Headquarters (5	2,000													
Machine Shops (50/50)	-													
Building Maintenance (50/	-													
Security (50/50)	-													
Operations Admin/Delinqu	-													
Materials Management (50	40,000													
Customer Service (50/50)	-													
Warranty Program	-													
Meter Shop (50/50)	-							-	-	-	106,000	217,000	331,000	338,000
Automotive Maintenance (	-													
Total	22,575,800							-	-	-	106,000	217,000	331,000	338,000

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Water Direct Costs													
Baxter Treatment Plant							41.67%	41.67%	41.67%	41.47%	41.27%	41.06%	41.05%
Queen Lane Treatment Plant							23.50%	23.50%	23.50%	23.39%	23.28%	23.16%	23.16%
Belmont Treatment Plant							20.27%	20.27%	20.27%	20.17%	20.07%	19.97%	19.97%
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							0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
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							3.45%	3.45%	3.45%	3.43%	3.41%	3.40%	3.40%
SWWPCP							2.06%	2.06%	2.06%	2.05%	2.04%	2.03%	2.03%
SEWPCP							1.99%	1.99%	1.99%	1.98%	1.97%	1.96%	1.96%
Industrial Waste							0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
Sewer Maintenance							0.05%	0.05%	0.05%	0.05%	0.05%	0.04%	0.04%
Inlet Cleaning							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interceptors/Flow Control							6.66%	6.66%	6.66%	6.63%	6.59%	6.56%	6.56%
Data & Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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)							0.18%	0.18%	0.18%	0.18%	0.18%	0.17%	0.17%
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%	0.47%	0.95%	1.44%	1.48%
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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation of Operations Class 300 Excl. Chemicals														**Direct O&M - 13**
								Adjustments						
Water Direct Costs														
Baxter Treatment Plant	1,292,000													
Queen Lane Treatment Pla	909,000													
Belmont Treatment Plant	579,000													
Conveyance Headquarters	-													
Load Control	131,000													
Distribution	296,000													
Pumping (b)	501,000													
Emergency & Support Serv	-													
Sewer Direct Costs														
Biosolids Engr Services	-													
Biosolids Utilization	-													
Biosolids Processing	50,000													
NEWPCP	1,856,000													
SWWPCP	1,132,000													
SEWPCP	1,406,000													
Industrial Waste	46,700													
Sewer Maintenance	705,400													
Inlet Cleaning	116,200													
Interceptors/Flow Control	672,500													
Data & Flow Control	-													
Collector System Support	2,100													
Allocated Costs														
Treatment Headquarters (5	8,100													
Machine Shops (50/50)	-													
Building Maintenance (50/	-													
Security (50/50)	-													
Operations Admin/Delinqu	786,100													
Materials Management (50	7,633,000													
Customer Service (50/50)	33,000													
Warranty Program	-													
Meter Shop (50/50)	131,000													
Automotive Maintenance (	-													
Total	18,286,100							-	-	-	-	-	-	-

Cost Center/Expense Class	Escalation Reference	Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Water Direct Costs													
Baxter Treatment Plant							7.07%	7.07%	7.07%	7.07%	7.07%	7.07%	7.07%
Queen Lane Treatment Plant							4.97%	4.97%	4.97%	4.97%	4.97%	4.97%	4.97%
Belmont Treatment Plant							3.17%	3.17%	3.17%	3.17%	3.17%	3.17%	3.17%
Conveyance Headquarters							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control							0.72%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%
Distribution							1.62%	1.62%	1.62%	1.62%	1.62%	1.62%	1.62%
Pumping (b)							2.74%	2.74%	2.74%	2.74%	2.74%	2.74%	2.74%
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							0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
NEWPCP							10.15%	10.15%	10.15%	10.15%	10.15%	10.15%	10.15%
SWWPCP							6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%
SEWPCP							7.69%	7.69%	7.69%	7.69%	7.69%	7.69%	7.69%
Industrial Waste							0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%
Sewer Maintenance							3.86%	3.86%	3.86%	3.86%	3.86%	3.86%	3.86%
Inlet Cleaning							0.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%
Interceptors/Flow Control							3.68%	3.68%	3.68%	3.68%	3.68%	3.68%	3.68%
Data & Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
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)							4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
Materials Management (50/50)							41.74%	41.74%	41.74%	41.74%	41.74%	41.74%	41.74%
Customer Service (50/50)							0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
Warranty Program							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)							0.72%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%
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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Detailed Allocation of Operations Class 400														**Direct O&M - 14**
								Adjustments						
Water Direct Costs														
Baxter Treatment Plant	558,000													
Queen Lane Treatment Pla	35,000													
Belmont Treatment Plant	47,000													
Conveyance Headquarters	-													
Load Control	30,000													
Distribution	278,000													
Pumping (b)	41,000													
Emergency & Support Serv	-													
Sewer Direct Costs														
Biosolids Engr Services	-													
Biosolids Utilization	-													
Biosolids Processing	-													
NEWPCP	212,000													
SWWPCP	189,000													
SEWPCP	169,000													
Industrial Waste	5,000													
Sewer Maintenance	48,500													
Inlet Cleaning	29,500													
Interceptors/Flow Control	13,000													
Data & Flow Control	-													
Collector System Support	-													
Allocated Costs														
Treatment Headquarters (5	5,000													
Machine Shops (50/50)	-													
Building Maintenance (50/	-													
Security (50/50)	-													
Operations Admin/Delinqu	108,000													
Materials Management (50	2,000													
Customer Service (50/50)	17,000													
Warranty Program	-													
Meter Shop (50/50)	11,000													
Automotive Maintenance (	-													
Total	1,798,000							-	-	-	-	-	-	-

Cost Center/Expense Class	Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
							Distribution based on Adjusted Costs						
Water Direct Costs													
Baxter Treatment Plant							31.03%	31.03%	31.03%	31.03%	31.03%	31.03%	31.03%
Queen Lane Treatment Plant							1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%
Belmont Treatment Plant							2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%
Conveyance Headquarters							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Load Control							1.67%	1.67%	1.67%	1.67%	1.67%	1.67%	1.67%
Distribution							15.46%	15.46%	15.46%	15.46%	15.46%	15.46%	15.46%
Pumping (b)							2.28%	2.28%	2.28%	2.28%	2.28%	2.28%	2.28%
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							11.79%	11.79%	11.79%	11.79%	11.79%	11.79%	11.79%
SWWPCP							10.51%	10.51%	10.51%	10.51%	10.51%	10.51%	10.51%
SEWPCP							9.40%	9.40%	9.40%	9.40%	9.40%	9.40%	9.40%
Industrial Waste							0.28%	0.28%	0.28%	0.28%	0.28%	0.28%	0.28%
Sewer Maintenance							2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
Inlet Cleaning							1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%
Interceptors/Flow Control							0.72%	0.72%	0.72%	0.72%	0.72%	0.72%	0.72%
Data & Flow Control							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Collector System Support							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allocated Costs													
Treatment Headquarters (50/50)							0.28%	0.28%	0.28%	0.28%	0.28%	0.28%	0.28%
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)							6.01%	6.01%	6.01%	6.01%	6.01%	6.01%	6.01%
Materials Management (50/50)							0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%
Customer Service (50/50)							0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%
Warranty Program							0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meter Shop (50/50)							0.61%	0.61%	0.61%	0.61%	0.61%	0.61%	0.61%
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 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
PWD Projected Direct O&M Budget														**Direct O&M - 15**
Human Resources and Administration														
100	Salaries & Wages	Labor	$ 7,492,200	$ 7,512,500	$ 7,533,950	$ 7,726,550	$ 7,860,450	$ 8,673,039	$ 8,815,500	$ 9,454,965	$ 9,738,364	$ 10,030,935	$ 10,331,923	$ 10,641,581
200	Services	Other 200	2,597,500	2,568,800	3,969,095	2,999,990	4,130,600	5,846,000	5,222,100	6,404,874	6,629,044	6,860,836	7,100,480	7,349,217
300	Materials and Supplies	Other 300	799,500	809,000	778,565	799,164	771,700	1,215,550	1,141,850	1,164,687	1,187,981	1,211,740	1,235,975	1,260,695
400	Equipment	Other 400	124,000	156,000	142,700	49,000	82,100	420,100	634,600	648,879	663,478	678,407	693,671	709,278
500	Contributions	General	10,000	100,000	100,000	100,000	100,000	100,000	100,000	103,000	106,090	109,273	112,551	115,927
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Human Resources and Administration			$ 11,023,200	$ 11,146,300	$ 12,524,310	$ 11,674,704	$ 12,944,850	$ 16,254,689	$ 15,914,050	$ 17,776,404	$ 18,324,957	$ 18,891,190	$ 19,474,599	$ 20,076,698
Finance														
100	Salaries & Wages	Labor	$ 1,784,500	$ 1,929,500	$ 1,602,950	$ 2,006,100	$ 2,181,400	$ 2,472,925	$ 2,550,200	$ 2,682,706	$ 2,763,507	$ 2,846,672	$ 2,932,273	$ 3,020,381
200	Services	Other 200	10,945,000	12,501,800	7,241,405	13,768,110	7,491,000	7,322,500	7,297,500	12,757,913	9,710,264	10,005,869	10,312,049	10,628,141
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	15,000,000	15,000,000	15,000,000
300	Materials and Supplies	Constant	419,500	702,000	752,735	806,436	816,400	436,200	86,200	3,636,200	3,636,200	3,636,200	3,636,200	3,636,200
400	Equipment	Other 300	517,000	244,000	599,800	610,800	560,800	10,800	37,800	38,556	39,327	40,114	40,916	41,734
500	Contributions	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	9,500,000	10,630,000	10,948,900	12,605,000	13,243,100	14,000,000	10,537,000	10,853,110	12,824,703	9,604,444	9,892,578	10,189,355
Subtotal Finance			$ 23,166,000	$ 26,007,300	$ 26,195,790	$ 34,971,446	$ 29,492,700	$ 34,492,425	$ 31,958,700	$ 44,968,485	$ 43,974,002	$ 41,133,299	$ 41,814,015	$ 42,515,811
Planning and Engineering														
100	Salaries & Wages	Labor	$ 1,450,250	$ 1,449,595	$ 1,198,100	$ 1,215,300	$ 1,268,860	$ 1,231,738	$ 1,225,000	$ 1,261,750	$ 1,299,603	$ 1,338,141	$ 1,378,385	$ 1,419,356
200	Services	Other 200	542,650	528,000	488,000	732,500	498,500	492,900	497,500	514,913	532,934	551,852	571,662	591,360
300	Materials and Supplies	Other 300	143,500	147,000	146,000	148,100	177,300	198,000	187,500	191,250	195,075	198,977	202,956	207,015
400	Equipment	Other 400	184,000	228,000	79,000	111,500	220,000	59,000	59,000	60,328	61,685	63,073	64,492	65,943
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning and Engineering			$ 2,320,400	$ 2,352,595	$ 1,911,100	$ 2,207,400	$ 2,164,660	$ 1,981,638	$ 1,969,000	$ 2,028,240	$ 2,089,297	$ 2,152,042	$ 2,217,495	$ 2,283,675
Operations														
100	Salaries & Wages	Labor	$ 68,803,000	$ 68,805,000	$ 69,949,000	$ 70,297,400	$ 69,343,900	$ 71,357,193	$ 74,515,100	$ 76,750,553	$ 79,103,070	$ 82,136,662	$ 84,355,402	$ 86,596,424
200	Services	Other 200	50,841,500	49,453,000	53,255,000	57,556,100	64,948,600	63,381,100	65,065,700	67,343,000	69,802,404	70,746,149	72,629,044	74,485,000
220	Power	Energy	20,195,000	26,266,000	27,128,000	29,362,900	26,994,900	25,714,000	27,845,000	27,845,000	28,541,125	29,254,653	29,986,019	30,735,670
300	Materials and Supplies	Other 300	15,451,000	15,358,000	16,332,000	17,255,800	17,240,200	17,855,400	18,286,100	18,651,822	19,231,858	19,724,176	20,231,919	20,640,238
307	Chemicals	Chemicals	29,225,000	23,845,000	22,502,000	23,537,400	23,435,500	23,668,950	22,575,800	23,320,801	24,090,388	24,885,371	25,706,588	26,554,905
400	Equipment	Other 400	1,748,000	1,330,000	2,033,000	1,527,800	1,980,700	1,577,800	1,798,000	1,838,455	1,877,008	1,921,428	1,966,735	2,012,949
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Operations			$ 186,263,500	$ 185,057,000	$ 191,199,000	$ 199,537,400	$ 203,943,800	$ 203,554,443	$ 210,085,700	$ 215,749,631	$ 222,645,853	$ 228,668,438	$ 234,875,707	$ 241,025,186
Planning & Environmental Services														
100	Salaries & Wages	Labor	$ 8,775,750	$ 9,500,405	$ 9,353,800	$ 10,316,700	$ 10,944,400	$ 12,569,537	$ 13,024,700	$ 13,415,441	$ 13,975,774	$ 14,562,487	$ 15,179,922	$ 15,635,430
200	Services	Other 200	15,750,500	16,637,700	18,102,800	19,579,700	19,299,800	22,374,200	25,254,200	26,138,097	27,231,930	28,357,048	29,314,545	30,305,554
300	Materials and Supplies	Other 300	1,387,500	1,342,500	1,298,500	1,362,100	1,179,600	1,349,600	1,408,100	1,436,262	1,464,987	1,494,287	1,524,173	1,554,656
400	Equipment	Other 400	2,733,542	2,315,160	783,400	930,500	886,400	583,650	853,450	872,653	892,287	912,364	932,892	953,882
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Planning & Environmental Services			$ 28,647,292	$ 29,795,765	$ 29,538,500	$ 32,189,000	$ 32,310,200	$ 36,876,987	$ 40,540,450	$ 41,862,453	$ 43,564,979	$ 45,326,186	$ 46,951,531	$ 48,449,522

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs														
100	Salaries & Wages	Labor	$ 2,169,300	$ 2,198,000	$ 2,203,200	$ 2,301,900	$ 2,424,900	$ 2,755,277	$ 2,831,100	$ 2,916,033	$ 3,003,514	$ 3,093,529	$ 3,186,155	$ 3,281,470
200	Services	Other 200	2,563,277	2,923,000	3,874,500	7,645,200	7,767,700	8,712,700	9,013,200	9,328,662	9,655,165	9,993,096	10,342,854	10,704,854
300	Materials and Supplies	Other 300	324,900	334,300	320,800	320,800	371,800	372,800	376,300	383,826	391,503	399,333	407,319	415,466
400	Equipment	Other 400	41,300	12,100	12,500	15,500	15,500	15,500	15,500	15,849	16,205	16,570	16,943	17,324
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Affairs			$ 5,098,777	$ 5,467,400	$ 6,411,000	$ 10,283,400	$ 10,579,900	$ 11,856,277	$ 12,236,100	$ 12,644,370	$ 13,066,387	$ 13,502,528	$ 13,953,272	$ 14,419,114
PWD Operating and Maintenance Expenses Summary														
100	Salaries & Wages		$ 90,475,000	$ 91,395,000	$ 91,841,000	$ 93,863,950	$ 94,023,910	$ 99,059,709	$ 102,961,600	$ 106,481,448	$ 109,883,831	$ 114,008,426	$ 117,364,059	$ 120,594,641
200	Services		83,240,427	84,612,300	86,930,800	102,281,600	104,136,200	108,129,400	112,350,200	122,487,457	123,561,743	126,514,849	130,270,634	134,064,126
220	Power		20,195,000	26,266,000	27,128,000	29,362,900	26,994,900	25,714,000	27,845,000	27,845,000	28,541,125	29,254,653	29,986,019	30,735,670
2xx	SMIP/GARP		-	-	5,050,000	5,175,000	5,200,000	10,250,000	11,450,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies		18,525,900	18,692,800	19,628,600	20,692,400	20,557,000	21,427,550	21,486,050	25,464,047	26,107,604	26,664,712	27,238,542	27,714,269
307	Chemicals		29,225,000	23,845,000	22,502,000	23,537,400	23,435,500	23,668,950	22,575,800	23,320,801	24,090,388	24,885,371	25,706,588	26,554,905
400	Equipment		5,347,842	4,285,260	3,650,400	3,245,100	3,745,500	2,666,850	3,398,350	3,474,718	3,549,991	3,631,955	3,715,648	3,801,111
500	Contributions		10,000	100,000	100,000	100,000	100,000	100,000	100,000	103,000	106,090	109,273	112,551	115,927
800	Transfers		9,500,000	10,630,000	10,948,900	12,605,000	13,243,100	14,000,000	10,537,000	10,853,110	12,824,703	9,604,444	9,892,578	10,189,355
Total PWD Operating and Maintenance Expenses Summary			**$ 256,519,169**	**$ 259,826,360**	**$ 267,779,700**	**$ 290,863,350**	**$ 291,436,110**	**$ 305,016,459**	**$ 312,704,000**	**$ 335,029,582**	**$ 343,665,475**	**$ 349,673,683**	**$ 359,286,619**	**$ 368,770,004**

FINPLAN15.XLS

INTER DEPT O&M

Index	Description	Table
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Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PWD Inter Departmental O&M														**InterDept O&M - 1**
Division of Technology														
100	Salaries & Wages	Labor	$ 4,080,157	$ 4,442,039	$ 3,994,808	$ 4,039,582	$ 4,621,214	$ 5,233,042	$ 5,114,671	$ 5,268,112	$ 5,426,155	$ 5,588,940	$ 5,756,608	$ 5,929,306
200	Services	Other 200	2,547,454	5,734,828	6,797,598	9,214,801	9,567,462	10,226,939	13,166,774	13,627,611	14,104,577	14,598,237	15,109,176	15,637,997
300	Materials and Supplies	Other 300	269,410	732,780	737,735	791,307	944,117	1,609,074	1,554,517	1,585,608	1,617,320	1,649,666	1,682,660	1,716,313
400	Equipment	Other 400	676	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Division of Technology			$ 6,897,697	$ 10,909,647	$ 11,530,141	$ 14,045,690	$ 15,132,793	$ 17,069,055	$ 19,835,962	$ 20,481,330	$ 21,148,052	$ 21,836,843	$ 22,548,443	$ 23,283,616
Mayor's Office of Transportation & Utilities														
100	Salaries & Wages	Labor	$ -	$ -	$ 56,160	$ 169,948	$ 208,176	$ 227,983	$ 196,326	$ 202,215	$ 208,282	$ 214,530	$ 220,966	$ 227,595
200	Services	Other 200	-	-	-	-	-	-	28,800	29,808	30,851	31,931	33,049	34,205
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities			$ -	$ -	$ 56,160	$ 169,948	$ 208,176	$ 227,983	$ 225,126	$ 232,023	$ 239,133	$ 246,461	$ 254,015	$ 261,801
Police														
100	Salaries & Wages	Labor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	General	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Police			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property														
100	Salaries & Wages	Labor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Property Leases	3,613,895	2,500,266	3,725,560	3,739,360	3,786,428	3,959,919	4,042,633	4,005,055	4,195,582	4,275,707	4,357,599	4,444,751
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Property			$ 3,613,895	$ 2,500,266	$ 3,725,560	$ 3,739,360	$ 3,786,428	$ 3,959,919	$ 4,042,633	$ 4,005,055	$ 4,195,582	$ 4,275,707	$ 4,357,599	$ 4,444,751
Fleet Management														
100	Salaries & Wages	Labor	$ 1,969,686	$ 2,233,948	$ 2,387,074	$ 2,554,406	$ 2,521,284	$ 2,602,612	$ 2,694,544	$ 2,775,380	$ 2,858,641	$ 2,944,401	$ 3,032,733	$ 3,123,715
200	Services	Other 200	1,110,649	1,350,082	1,256,788	894,932	1,438,785	1,488,271	1,273,996	1,318,586	1,364,736	1,412,502	1,461,940	1,513,108
300	Materials and Supplies	Other 300	4,130,928	4,671,274	3,958,404	3,769,562	4,225,827	4,232,497	4,075,962	4,157,481	4,240,631	4,325,443	4,411,952	4,500,191
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Fleet Management			$ 7,211,263	$ 8,255,304	$ 7,602,266	$ 7,218,900	$ 8,185,896	$ 8,323,380	$ 8,044,502	$ 8,251,447	$ 8,464,009	$ 8,682,346	$ 8,906,625	$ 9,137,014

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance														
100	Salaries & Wages	Labor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits	Other Benefits	39,974,376	42,279,349	38,395,202	40,369,391	41,044,344	48,293,131	49,358,102	51,556,567	53,921,078	57,660,823	59,983,857	62,983,761
191	Pension	Pension	20,744,208	32,719,112	38,770,167	35,507,147	38,305,052	40,861,335	46,529,000	47,655,080	48,444,900	49,336,380	50,040,180	51,541,385
190	Pension Obligations	Pension Obligations	6,749,386	9,449,462	9,843,048	20,452,252	22,450,403	11,415,451	12,100,000	12,100,000	12,100,000	12,100,000	12,100,000	12,100,000
200	Services	Other 200	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	Constant	4,896,811	5,383,670	3,046,915	5,090,210	6,036,098	3,840,767	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal City Finance			$ 72,364,781	$ 89,831,593	$ 90,055,332	$ 101,418,999	$ 107,835,896	$ 104,410,684	$ 114,487,102	$ 117,811,647	$ 120,965,978	$ 125,597,203	$ 128,624,037	$ 133,125,146
Revenue														
100	Salaries & Wages	Labor	$ 9,917,749	$ 9,557,122	$ 9,729,716	$ 10,020,393	$ 9,701,251	$ 10,013,594	$ 9,896,635	$ 10,193,534	$ 10,499,340	$ 10,814,320	$ 11,138,750	$ 11,472,912
200	Services	Other 200	7,007,095	3,371,322	3,677,818	4,020,068	4,133,603	4,241,117	4,494,166	4,651,462	4,814,263	4,982,762	5,157,159	5,337,659
300	Materials and Supplies	Other 300	752,772	650,423	525,300	561,421	688,157	630,784	538,628	549,401	560,389	571,596	583,028	594,689
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	Constant	243	170	315	170	481	1,273	5,000	5,000	5,000	5,000	5,000	5,000
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Revenue			$ 17,677,859	$ 13,579,037	$ 13,933,149	$ 14,602,052	$ 14,523,492	$ 14,886,768	$ 14,934,429	$ 15,399,396	$ 15,878,992	$ 16,373,679	$ 16,883,937	$ 17,410,261
Procurement														
100	Salaries & Wages	Labor	$ 69,028	$ 69,074	$ 45,856	$ 68,882	$ 62,746	$ 60,866	$ 69,141	$ 71,216	$ 73,352	$ 75,553	$ 77,819	$ 80,154
200	Services	Other 200	-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies	Other 300	-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Procurement			$ 69,028	$ 69,074	$ 45,856	$ 68,882	$ 62,746	$ 60,866	$ 69,141	$ 71,216	$ 73,352	$ 75,553	$ 77,819	$ 80,154
Law														
100	Salaries & Wages	Labor	$ 2,325,631	$ 2,476,451	$ 2,286,502	$ 2,281,362	$ 2,192,613	$ 2,137,491	$ 2,266,082	$ 2,334,064	$ 2,404,086	$ 2,476,209	$ 2,550,495	$ 2,627,010
200	Services	Other 200	744,333	657,417	672,341	543,724	670,808	309,631	508,054	525,836	544,241	563,289	583,004	603,409
300	Materials and Supplies	Other 300	45,764	43,010	33,976	36,392	16,663	8,002	20,352	20,759	21,175	21,598	22,030	22,471
400	Equipment	Other 400	-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions	Constant	-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers	General	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Law			$ 3,115,728	$ 3,176,878	$ 2,992,819	$ 2,861,478	$ 2,880,084	$ 2,455,124	$ 2,794,488	$ 2,880,660	$ 2,969,501	$ 3,061,096	$ 3,155,529	$ 3,252,890
PWD Inter Departmental Operating and Maintenance Expenses Summary														
100	Salaries & Wages		$ 18,362,251	$ 18,778,634	$ 18,500,116	$ 19,134,573	$ 19,307,284	$ 20,275,588	$ 20,237,399	$ 20,844,521	$ 21,469,857	$ 22,113,952	$ 22,777,371	$ 23,460,692
1xx	Benefits		39,974,376	42,279,349	38,395,202	40,369,391	41,044,344	48,293,131	49,358,102	51,556,567	53,921,078	57,660,823	59,983,857	62,983,761
191	Pension		20,744,208	32,719,112	38,770,167	35,507,147	38,305,052	40,861,335	46,529,000	47,655,080	48,444,900	49,336,380	50,040,180	51,541,385
190	Pension Obligations		6,749,386	9,449,462	9,843,048	20,452,252	22,450,403	11,415,451	12,100,000	12,100,000	12,100,000	12,100,000	12,100,000	12,100,000
200	Services		15,023,426	13,613,915	16,130,105	18,412,885	19,597,086	20,225,877	23,514,423	24,158,358	25,054,250	25,864,428	26,701,925	27,571,129
220	Power		-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies		5,198,874	6,097,487	5,255,415	5,158,682	5,874,764	6,480,357	6,189,460	6,313,249	6,439,514	6,568,304	6,699,670	6,833,664
307	Chemicals		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		676	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		4,897,054	5,383,840	3,047,230	5,090,380	6,036,579	3,842,040	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Total PWD Inter Departmental Operating and Maintenance Expenses Summa			**$ 110,950,251**	**$ 128,321,799**	**$ 129,941,283**	**$ 144,125,309**	**$ 152,615,511**	**$ 151,393,779**	**$ 164,433,383**	**$ 169,132,774**	**$ 173,934,598**	**$ 180,148,888**	**$ 184,808,004**	**$ 190,995,630**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Direct and Inter Departmental Class 100		**$ 101,721,666**	**$ 101,283,104**	**$ 100,874,990**	**$ 104,392,548**	**$ 108,902,414**	**$ 118,718,437**	**$ 123,198,999**	**$ 126,894,969**	**$ 130,701,818**	**$ 134,622,873**	**$ 138,661,559**	**$ 142,821,405**
	Penion & Benefits/Class 100 Ratio		**66.3%**	**83.4%**	**86.3%**	**92.3%**	**93.5%**	**84.7%**	**87.7%**	**87.7%**	**87.6%**	**88.5%**	**88.1%**	**88.7%**
	Benefits/Class 100 Ratio		**39.3%**	**41.7%**	**38.1%**	**38.7%**	**37.7%**	**40.7%**	**40.1%**	**40.6%**	**41.3%**	**42.8%**	**43.3%**	**44.1%**
	Pension/Class 100 Ratio		**20.4%**	**32.3%**	**38.4%**	**34.0%**	**35.2%**	**34.4%**	**37.8%**	**37.6%**	**37.1%**	**36.6%**	**36.1%**	**36.1%**
	Pension Obligations/Class 100 Ratio		**6.6%**	**9.3%**	**9.8%**	**19.6%**	**20.6%**	**9.6%**	**9.8%**	**9.5%**	**9.3%**	**9.0%**	**8.7%**	**8.5%**
PWD Inter Departmental Operating and Maintenance Expenses Summary - Annual Increase														
100	Salaries & Wages		-2.74%	2.27%	-1.48%	3.43%	0.90%	5.02%	-0.19%	3.00%	3.00%	3.00%	3.00%	3.00%
1xx	Benefits		1.60%	5.77%	-9.19%	5.14%	1.67%	17.66%	2.21%	4.45%	4.59%	6.94%	4.03%	5.00%
191	Pension		-35.11%	57.73%	18.49%	-8.42%	7.88%	6.67%	13.87%	2.42%	1.66%	1.84%	1.43%	3.00%
190	Pension Obligations		5.57%	40.00%	4.17%	107.78%	9.77%	-49.15%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%
200	Services		1.72%	-9.38%	18.48%	14.15%	6.43%	3.21%	16.26%	2.74%	3.71%	3.23%	3.24%	3.26%
220	Power		0.00%											
300	Materials and Supplies		-5.82%	17.28%	-13.81%	-1.84%	13.88%	10.31%	-4.49%	2.00%	2.00%	2.00%	2.00%	2.00%
307	Chemicals		0.00%											
400	Equipment		-96.79%	-100.00%										
500	Contributions		-1.61%	9.94%	-43.40%	67.05%	18.59%	-36.35%	69.31%	0.00%	0.00%	0.00%	0.00%	0.00%
800	Transfers		0.00%											
Total PWD Inter Departmental Operating and Maintenance Expenses Summa			-8.97%	15.66%	1.26%	10.92%	5.89%	-0.80%	8.61%	2.86%	2.84%	3.57%	2.59%	3.35%
PWD Inter Departmental Operating and Maintenance Expenses Summary - 3 Year Average Increase														
100	Salaries & Wages				-0.67%	1.38%	0.93%	3.10%	1.89%	2.59%	1.93%	3.00%	3.00%	3.00%
1xx	Benefits				-0.81%	0.33%	-0.98%	7.95%	6.93%	7.90%	3.74%	5.32%	5.18%	5.31%
191	Pension				6.64%	19.62%	5.39%	1.77%	9.43%	7.55%	5.84%	1.97%	1.64%	2.09%
190	Pension Obligations				15.47%	44.71%	33.44%	5.06%	-16.05%	-18.62%	1.96%	0.00%	0.00%	0.00%
200	Services				2.98%	7.02%	12.91%	7.83%	8.49%	7.22%	7.40%	3.23%	3.39%	3.24%
220	Power				0.00%									
300	Materials and Supplies				-1.63%	-0.26%	-1.23%	7.23%	6.26%	2.43%	-0.21%	2.00%	2.00%	2.00%
307	Chemicals				0.00%									
400	Equipment				-100.00%	-100.00%								
500	Contributions				-15.09%	1.30%	3.89%	8.03%	8.52%	2.52%	19.19%	0.00%	0.00%	0.00%
800	Transfers				0.00%									
Total PWD Inter Departmental Operating and Maintenance Expenses Summary - 3 Year Average Increase					2.16%	9.11%	5.95%	5.23%	4.49%	3.48%	4.74%	3.09%	3.00%	3.17%

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PWD Inter Departmental O&M Adjustments														**InterDept O&M - 2**
Division of Technology														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	General						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Division of Technology								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	General						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	General						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Police								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Property Leases						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Public Property								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	14,000	6,000	(23,000)	(66,000)
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Fleet Management								$ -	$ -	$ -	$ 14,000	$ 6,000	$ (23,000)	$ (66,000)

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits	Other Benefits						-	-	1,079,000	1,335,000	1,782,000	1,826,000	1,789,000
191	Pension	Pension						-	-	999,000	1,200,000	1,526,000	1,523,000	1,464,000
190	Pension Obligations	Pension Obligations						-	-	254,000	301,000	375,000	369,000	344,000
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal City Finance								$ -	$ -	$ 2,332,000	$ 2,836,000	$ 3,683,000	$ 3,718,000	$ 3,597,000
Revenue														
100	Salaries & Wages	Labor						$ -	$ -	$ 854,000	$ 1,173,000	$ 1,208,000	$ 1,244,000	$ 1,281,000
200	Services	Other 200						-	-	111,000	116,000	118,000	120,000	122,000
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Revenue								$ -	$ -	$ 965,000	$ 1,289,000	$ 1,326,000	$ 1,364,000	$ 1,403,000
Procurement														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Procurement								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Law								$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustments Summary														
100	Salaries & Wages							$ -	$ -	$ 854,000	$ 1,173,000	$ 1,208,000	$ 1,244,000	$ 1,281,000
1xx	Benefits							-	-	1,079,000	1,335,000	1,782,000	1,826,000	1,789,000
191	Pension							-	-	999,000	1,200,000	1,526,000	1,523,000	1,464,000
190	Pension Obligations							-	-	254,000	301,000	375,000	369,000	344,000
200	Services							-	-	111,000	116,000	118,000	120,000	122,000
220	Power							-	-	-	-	-	-	-
300	Materials and Supplies							-	-	-	14,000	6,000	(23,000)	(66,000)
307	Chemicals							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustments Summary								**$ -**	**$ -**	**$ 3,297,000**	**$ 4,139,000**	**$ 5,015,000**	**$ 5,059,000**	**$ 4,934,000**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PWD Adjusted Inter Departmental O&M														**InterDept O&M - 3**
Division of Technology														
100	Salaries & Wages		$ 4,080,157	$ 4,442,039	$ 3,994,808	$ 4,039,582	$ 4,621,214	$ 5,233,042	$ 5,114,671	$ 5,268,112	$ 5,426,155	$ 5,588,940	$ 5,756,608	$ 5,929,306
200	Services		2,547,454	5,734,828	6,797,598	9,214,801	9,567,462	10,226,939	13,166,774	13,627,611	14,104,577	14,598,237	15,109,176	15,637,997
300	Materials and Supplies		269,410	732,780	737,735	791,307	944,117	1,609,074	1,554,517	1,585,608	1,617,320	1,649,666	1,682,660	1,716,313
400	Equipment		676	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Division of Technology			$ 6,897,697	$ 10,909,647	$ 11,530,141	$ 14,045,690	$ 15,132,793	$ 17,069,055	$ 19,835,962	$ 20,481,330	$ 21,148,052	$ 21,836,843	$ 22,548,443	$ 23,283,616
Mayor's Office of Transportation & Utilities														
100	Salaries & Wages		$ -	$ -	$ 56,160	$ 169,948	$ 208,176	$ 227,983	$ 196,326	$ 202,215	$ 208,282	$ 214,530	$ 220,966	$ 227,595
200	Services		-	-	-	-	-	-	28,800	29,808	30,851	31,931	33,049	34,205
300	Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities			$ -	$ -	$ 56,160	$ 169,948	$ 208,176	$ 227,983	$ 225,126	$ 232,023	$ 239,133	$ 246,461	$ 254,015	$ 261,801
Police														
100	Salaries & Wages		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services		-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Police			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property														
100	Salaries & Wages		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services		3,613,895	2,500,266	3,725,560	3,739,360	3,786,428	3,959,919	4,042,633	4,005,055	4,195,582	4,275,707	4,357,599	4,444,751
300	Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Public Property			$ 3,613,895	$ 2,500,266	$ 3,725,560	$ 3,739,360	$ 3,786,428	$ 3,959,919	$ 4,042,633	$ 4,005,055	$ 4,195,582	$ 4,275,707	$ 4,357,599	$ 4,444,751
Fleet Management														
100	Salaries & Wages		$ 1,969,686	$ 2,233,948	$ 2,387,074	$ 2,554,406	$ 2,521,284	$ 2,602,612	$ 2,694,544	$ 2,775,380	$ 2,858,641	$ 2,944,401	$ 3,032,733	$ 3,123,715
200	Services		1,110,649	1,350,082	1,256,788	894,932	1,438,785	1,488,271	1,273,996	1,318,586	1,364,736	1,412,502	1,461,940	1,513,108
300	Materials and Supplies		4,130,928	4,671,274	3,958,404	3,769,562	4,225,827	4,232,497	4,075,962	4,157,481	4,254,631	4,331,443	4,388,952	4,434,191
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Fleet Management			$ 7,211,263	$ 8,255,304	$ 7,602,266	$ 7,218,900	$ 8,185,896	$ 8,323,380	$ 8,044,502	$ 8,251,447	$ 8,478,009	$ 8,688,346	$ 8,883,625	$ 9,071,014

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance														
100	Salaries & Wages		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits		39,974,376	42,279,349	38,395,202	40,369,391	41,044,344	48,293,131	49,358,102	52,635,567	55,256,078	59,442,823	61,809,857	64,772,761
191	Pension		20,744,208	32,719,112	38,770,167	35,507,147	38,305,052	40,861,335	46,529,000	48,654,080	49,644,900	50,862,380	51,563,180	53,005,385
190	Pension Obligations		6,749,386	9,449,462	9,843,048	20,452,252	22,450,403	11,415,451	12,100,000	12,354,000	12,401,000	12,475,000	12,469,000	12,444,000
200	Services		-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		4,896,811	5,383,670	3,046,915	5,090,210	6,036,098	3,840,767	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal City Finance			$ 72,364,781	$ 89,831,593	$ 90,055,332	$ 101,418,999	$ 107,835,896	$ 104,410,684	$ 114,487,102	$ 120,143,647	$ 123,801,978	$ 129,280,203	$ 132,342,037	$ 136,722,146
Revenue														
100	Salaries & Wages		$ 9,917,749	$ 9,557,122	$ 9,729,716	$ 10,020,393	$ 9,701,251	$ 10,013,594	$ 9,896,635	$ 11,047,534	$ 11,672,340	$ 12,022,320	$ 12,382,750	$ 12,753,912
200	Services		7,007,095	3,371,322	3,677,818	4,020,068	4,133,603	4,241,117	4,494,166	4,762,462	4,930,263	5,100,762	5,277,159	5,459,659
300	Materials and Supplies		752,772	650,423	525,300	561,421	688,157	630,784	538,628	549,401	560,389	571,596	583,028	594,689
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		243	170	315	170	481	1,273	5,000	5,000	5,000	5,000	5,000	5,000
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Revenue			$ 17,677,859	$ 13,579,037	$ 13,933,149	$ 14,602,052	$ 14,523,492	$ 14,886,768	$ 14,934,429	$ 16,364,396	$ 17,167,992	$ 17,699,679	$ 18,247,937	$ 18,813,261
Procurement														
100	Salaries & Wages		$ 69,028	$ 69,074	$ 45,856	$ 68,882	$ 62,746	$ 60,866	$ 69,141	$ 71,216	$ 73,352	$ 75,553	$ 77,819	$ 80,154
200	Services		-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Procurement			$ 69,028	$ 69,074	$ 45,856	$ 68,882	$ 62,746	$ 60,866	$ 69,141	$ 71,216	$ 73,352	$ 75,553	$ 77,819	$ 80,154
Law														
100	Salaries & Wages		$ 2,325,631	$ 2,476,451	$ 2,286,502	$ 2,281,362	$ 2,192,613	$ 2,137,491	$ 2,266,082	$ 2,334,064	$ 2,404,086	$ 2,476,209	$ 2,550,495	$ 2,627,010
200	Services		744,333	657,417	672,341	543,724	670,808	309,631	508,054	525,836	544,241	563,289	583,004	603,409
300	Materials and Supplies		45,764	43,010	33,976	36,392	16,663	8,002	20,352	20,759	21,175	21,598	22,030	22,471
400	Equipment		-	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		-	-	-	-	-	-	-	-	-	-	-	-
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Law			$ 3,115,728	$ 3,176,878	$ 2,992,819	$ 2,861,478	$ 2,880,084	$ 2,455,124	$ 2,794,488	$ 2,880,660	$ 2,969,501	$ 3,061,096	$ 3,155,529	$ 3,252,890
PWD Inter Departmental Operating and Maintenance Expenses Summary														
100	Salaries & Wages		$ 18,362,251	$ 18,778,634	$ 18,500,116	$ 19,134,573	$ 19,307,284	$ 20,275,588	$ 20,237,399	$ 21,698,521	$ 22,642,857	$ 23,321,952	$ 24,021,371	$ 24,741,692
1xx	Benefits		39,974,376	42,279,349	38,395,202	40,369,391	41,044,344	48,293,131	49,358,102	52,635,567	55,256,078	59,442,823	61,809,857	64,772,761
191	Pension		20,744,208	32,719,112	38,770,167	35,507,147	38,305,052	40,861,335	46,529,000	48,654,080	49,644,900	50,862,380	51,563,180	53,005,385
190	Pension Obligations		6,749,386	9,449,462	9,843,048	20,452,252	22,450,403	11,415,451	12,100,000	12,354,000	12,401,000	12,475,000	12,469,000	12,444,000
200	Services		15,023,426	13,613,915	16,130,105	18,412,885	19,597,086	20,225,877	23,514,423	24,269,358	25,170,250	25,982,428	26,821,925	27,693,129
220	Power		-	-	-	-	-	-	-	-	-	-	-	-
300	Materials and Supplies		5,198,874	6,097,487	5,255,415	5,158,682	5,874,764	6,480,357	6,189,460	6,313,249	6,453,514	6,574,304	6,676,670	6,767,664
307	Chemicals		-	-	-	-	-	-	-	-	-	-	-	-
400	Equipment		676	-	-	-	-	-	-	-	-	-	-	-
500	Contributions		4,897,054	5,383,840	3,047,230	5,090,380	6,036,579	3,842,040	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000
800	Transfers		-	-	-	-	-	-	-	-	-	-	-	-
Total PWD Inter Departmental Operating and Maintenance Expenses Summa			**$ 110,950,251**	**$ 128,321,799**	**$ 129,941,283**	**$ 144,125,309**	**$ 152,615,511**	**$ 151,393,779**	**$ 164,433,383**	**$ 172,429,774**	**$ 178,073,598**	**$ 185,163,888**	**$ 189,867,004**	**$ 195,929,630**

Cost Center/Expense Class	Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Direct and Inter Departmental Class 100	**$ 101,721,666**	**$ 101,283,104**	**$ 100,874,990**	**$ 104,392,548**	**$ 108,902,414**	**$ 118,718,437**	**$ 123,198,999**	**$ 129,550,969**	**$ 133,938,818**	**$ 138,784,873**	**$ 142,883,559**	**$ 146,879,405**
	Penion & Benefits/Class 100 Ratio	**66.3%**	**83.4%**	**86.3%**	**92.3%**	**93.5%**	**84.7%**	**87.7%**	**87.7%**	**87.6%**	**88.5%**	**88.1%**	**88.7%**
	Benefits/Class 100 Ratio	**39.3%**	**41.7%**	**38.1%**	**38.7%**	**37.7%**	**40.7%**	**40.1%**	**40.6%**	**41.3%**	**42.8%**	**43.3%**	**44.1%**
	Pension/Class 100 Ratio	**20.4%**	**32.3%**	**38.4%**	**34.0%**	**35.2%**	**34.4%**	**37.8%**	**37.6%**	**37.1%**	**36.6%**	**36.1%**	**36.1%**
	Pension Obligations/Class 100 Ratio	**6.6%**	**9.3%**	**9.8%**	**19.6%**	**20.6%**	**9.6%**	**9.8%**	**9.5%**	**9.3%**	**9.0%**	**8.7%**	**8.5%**
PWD Inter Departmental Operating and Maintenance Expenses Summary - Annual Increase													
100	Salaries & Wages	-2.74%	2.27%	-1.48%	3.43%	0.90%	5.02%	-0.19%	7.22%	4.35%	3.00%	3.00%	3.00%
1xx	Benefits	1.60%	5.77%	-9.19%	5.14%	1.67%	17.66%	2.21%	6.64%	4.98%	7.58%	3.98%	4.79%
191	Pension	-35.11%	57.73%	18.49%	-8.42%	7.88%	6.67%	13.87%	4.57%	2.04%	2.45%	1.38%	2.80%
190	Pension Obligations	5.57%	40.00%	4.17%	107.78%	9.77%	-49.15%	6.00%	2.10%	0.38%	0.60%	-0.05%	-0.20%
200	Services	1.72%	-9.38%	18.48%	14.15%	6.43%	3.21%	16.26%	3.21%	3.71%	3.23%	3.23%	3.25%
220	Power	0.00%											
300	Materials and Supplies	-5.82%	17.28%	-13.81%	-1.84%	13.88%	10.31%	-4.49%	2.00%	2.22%	1.87%	1.56%	1.36%
307	Chemicals	0.00%											
400	Equipment	-96.79%	-100.00%										
500	Contributions	-1.61%	9.94%	-43.40%	67.05%	18.59%	-36.35%	69.31%	0.00%	0.00%	0.00%	0.00%	0.00%
800	Transfers	0.00%											
Total PWD Inter Departmental Operating and Maintenance Expenses Summa		-8.97%	15.66%	1.26%	10.92%	5.89%	-0.80%	8.61%	4.86%	3.27%	3.98%	2.54%	3.19%

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Water System Inter Departmental O&M														**InterDept O&M - 4**
Division of Technology														
100	Salaries & Wages							$ 3,043,492	$ 2,974,649	$ 3,063,888	$ 3,155,805	$ 3,250,479	$ 3,347,993	$ 3,448,433
200	Services							5,044,264	6,494,287	6,721,587	6,956,843	7,200,332	7,452,344	7,713,176
300	Materials and Supplies							842,997	814,415	830,703	847,317	864,263	881,549	899,180
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Division of Technology								$ 8,930,753	$ 10,283,351	$ 10,616,178	$ 10,959,965	$ 11,315,074	$ 11,681,886	$ 12,060,789
Mayor's Office of Transportation & Utilities														
100	Salaries & Wages							$ 82,074	$ 70,677	$ 72,798	$ 74,981	$ 77,231	$ 79,548	$ 81,934
200	Services							-	10,368	10,731	11,106	11,495	11,898	12,314
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities								$ 82,074	$ 81,045	$ 83,529	$ 86,087	$ 88,726	$ 91,446	$ 94,248
Police														
100	Salaries & Wages							$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services							-	-	-	-	-	-	-
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Police								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property														
100	Salaries & Wages							$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services							1,425,571	1,455,348	1,441,820	1,510,409	1,539,255	1,568,736	1,600,110
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Public Property								$ 1,425,571	$ 1,455,348	$ 1,441,820	$ 1,510,409	$ 1,539,255	$ 1,568,736	$ 1,600,110
Fleet Management														
100	Salaries & Wages							$ 936,940	$ 970,036	$ 999,137	$ 1,029,111	$ 1,059,984	$ 1,091,784	$ 1,124,537
200	Services							535,778	458,639	474,691	491,305	508,501	526,298	544,719
300	Materials and Supplies							1,523,699	1,467,346	1,496,693	1,531,667	1,559,320	1,580,023	1,596,309
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Fleet Management								$ 2,996,417	$ 2,896,021	$ 2,970,521	$ 3,052,083	$ 3,127,805	$ 3,198,105	$ 3,265,565

Cost Center/Expense Class			Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance															
	100	Salaries & Wages							$ -	$ -	$ -	$ -	$ -	$ -	$ -
	1xx	Benefits							19,857,613	20,274,727	21,553,487	22,613,986	24,326,439	25,278,092	26,476,537
	191	Pension							16,801,739	19,112,623	19,923,127	20,317,567	20,814,970	21,087,556	21,666,500
	190	Pension Obligations							4,693,910	4,970,292	5,058,780	5,075,207	5,105,281	5,099,389	5,086,614
	200	Services							-	-	-	-	-	-	-
	300	Materials and Supplies							-	-	-	-	-	-	-
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							1,421,084	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000
	800	Transfers							-	-	-	-	-	-	-
Subtotal City Finance									$ 42,774,346	$ 46,762,642	$ 48,940,394	$ 50,411,760	$ 52,651,690	$ 53,870,037	$ 55,634,651
Revenue															
	100	Salaries & Wages							$ 3,344,540	$ 3,305,476	$ 3,689,876	$ 3,898,562	$ 4,015,455	$ 4,135,838	$ 4,259,807
	200	Services							1,416,533	1,501,051	1,590,662	1,646,708	1,703,654	1,762,571	1,823,526
	300	Materials and Supplies							210,682	179,902	183,500	187,170	190,913	194,731	198,626
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							425	1,670	1,670	1,670	1,670	1,670	1,670
	800	Transfers							-	-	-	-	-	-	-
Subtotal Revenue									$ 4,972,180	$ 4,988,099	$ 5,465,708	$ 5,734,110	$ 5,911,692	$ 6,094,810	$ 6,283,629
Procurement															
	100	Salaries & Wages							$ 21,912	$ 24,891	$ 25,638	$ 26,407	$ 27,199	$ 28,015	$ 28,855
	200	Services							-	-	-	-	-	-	-
	300	Materials and Supplies							-	-	-	-	-	-	-
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							-	-	-	-	-	-	-
	800	Transfers							-	-	-	-	-	-	-
Subtotal Procurement									$ 21,912	$ 24,891	$ 25,638	$ 26,407	$ 27,199	$ 28,015	$ 28,855
Law															
	100	Salaries & Wages							$ 790,872	$ 838,450	$ 863,604	$ 889,512	$ 916,197	$ 943,683	$ 971,994
	200	Services							114,563	187,980	194,559	201,369	208,417	215,711	223,261
	300	Materials and Supplies							2,961	7,530	7,681	7,835	7,991	8,151	8,314
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							-	-	-	-	-	-	-
	800	Transfers							-	-	-	-	-	-	-
Subtotal Law									$ 908,396	$ 1,033,960	$ 1,065,844	$ 1,098,716	$ 1,132,605	$ 1,167,545	$ 1,203,569
Water System Operating and Maintenance Expenses Summary															
Salaries & W:	100	Salaries & Wages							$ 8,219,830	$ 8,184,179	$ 8,714,941	$ 9,074,378	$ 9,346,545	$ 9,626,861	$ 9,915,560
Benefits	1xx	Benefits							19,857,613	20,274,727	21,553,487	22,613,986	24,326,439	25,278,092	26,476,537
Pension	191	Pension							16,801,739	19,112,623	19,923,127	20,317,567	20,814,970	21,087,556	21,666,500
Pension Oblig	190	Pension Obligations							4,693,910	4,970,292	5,058,780	5,075,207	5,105,281	5,099,389	5,086,614
Power	200	Services							8,536,709	10,107,673	10,434,050	10,817,740	11,171,654	11,537,558	11,917,106
All Other 200	220	Power							-	-	-	-	-	-	-
Chemicals	300	Materials and Supplies							2,580,339	2,469,193	2,518,577	2,573,989	2,622,487	2,664,454	2,702,429
All Other 300	307	Chemicals							-	-	-	-	-	-	-
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							1,421,509	2,406,670	2,406,670	2,406,670	2,406,670	2,406,670	2,406,670
	800	Transfers							-	-	-	-	-	-	-
Total Water System Operating and Maintenance Expenses Summary									**$ 62,111,649**	**$ 67,525,357**	**$ 70,609,632**	**$ 72,879,537**	**$ 75,794,046**	**$ 77,700,580**	**$ 80,171,416**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Wastewater System Inter Departmental O&M														**InterDept O&M - 5**
Division of Technology														
100	Salaries & Wages							$ 2,189,550	$ 2,140,022	$ 2,204,224	$ 2,270,350	$ 2,338,461	$ 2,408,615	$ 2,480,873
200	Services							5,182,675	6,672,487	6,906,024	7,147,734	7,397,905	7,656,832	7,924,821
300	Materials and Supplies							766,077	740,102	754,905	770,003	785,403	801,111	817,133
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							0	0	0	0	0	0	0
Subtotal Division of Technology								$ 8,138,302	$ 9,552,611	$ 9,865,152	$ 10,188,087	$ 10,521,769	$ 10,866,557	$ 11,222,827
Mayor's Office of Transportation & Utilities														
100	Salaries & Wages							$ 145,909	$ 125,649	$ 129,417	$ 133,301	$ 137,299	$ 141,418	$ 145,661
200	Services							-	18,432	19,077	19,745	20,436	21,151	21,891
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities								$ 145,909	$ 144,081	$ 148,494	$ 153,046	$ 157,735	$ 162,569	$ 167,553
Police														
100	Salaries & Wages							$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services							-	-	-	-	-	-	-
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Police								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property														
100	Salaries & Wages							$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services							2,534,348	2,587,285	2,563,235	2,685,173	2,736,452	2,788,863	2,844,641
300	Materials and Supplies							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Public Property								$ 2,534,348	$ 2,587,285	$ 2,563,235	$ 2,685,173	$ 2,736,452	$ 2,788,863	$ 2,844,641
Fleet Management														
100	Salaries & Wages							$ 1,665,672	$ 1,724,508	$ 1,776,243	$ 1,829,530	$ 1,884,417	$ 1,940,949	$ 1,999,178
200	Services							952,493	815,357	843,895	873,431	904,001	935,642	968,389
300	Materials and Supplies							2,708,798	2,608,616	2,660,788	2,722,964	2,772,123	2,808,929	2,837,882
400	Equipment							-	-	-	-	-	-	-
500	Contributions							-	-	-	-	-	-	-
800	Transfers							-	-	-	-	-	-	-
Subtotal Fleet Management								$ 5,326,963	$ 5,148,481	$ 5,280,926	$ 5,425,926	$ 5,560,541	$ 5,685,520	$ 5,805,449

Cost Center/Expense Class			Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance															
	100	Salaries & Wages							$ -	$ -	$ -	$ -	$ -	$ -	$ -
	1xx	Benefits							28,435,518	29,083,375	31,082,080	32,642,092	35,116,384	36,531,765	38,296,224
	191	Pension							24,059,596	27,416,377	28,730,953	29,327,333	30,047,410	30,475,624	31,338,885
	190	Pension Obligations							6,721,541	7,129,708	7,295,220	7,325,793	7,369,719	7,369,611	7,357,386
	200	Services							-	-	-	-	-	-	-
	300	Materials and Supplies							-	-	-	-	-	-	-
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							2,419,683	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000
	800	Transfers							-	-	-	-	-	-	-
Subtotal City Finance									$ 61,636,338	$ 67,724,460	$ 71,203,253	$ 73,390,218	$ 76,628,513	$ 78,472,000	$ 81,087,495
Revenue															
	100	Salaries & Wages							$ 6,669,054	$ 6,591,159	$ 7,357,658	$ 7,773,778	$ 8,006,865	$ 8,246,912	$ 8,494,105
	200	Services							2,824,584	2,993,115	3,171,800	3,283,555	3,397,108	3,514,588	3,636,133
	300	Materials and Supplies							420,102	358,726	365,901	373,219	380,683	388,297	396,063
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							848	3,330	3,330	3,330	3,330	3,330	3,330
	800	Transfers							-	-	-	-	-	-	-
Subtotal Revenue									$ 9,914,588	$ 9,946,330	$ 10,898,688	$ 11,433,882	$ 11,787,987	$ 12,153,127	$ 12,529,632
Procurement															
	100	Salaries & Wages							$ 38,954	$ 44,250	$ 45,578	$ 46,945	$ 48,354	$ 49,804	$ 51,299
	200	Services							-	-	-	-	-	-	-
	300	Materials and Supplies							-	-	-	-	-	-	-
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							-	-	-	-	-	-	-
	800	Transfers							-	-	-	-	-	-	-
Subtotal Procurement									$ 38,954	$ 44,250	$ 45,578	$ 46,945	$ 48,354	$ 49,804	$ 51,299
Law															
	100	Salaries & Wages							$ 1,346,619	$ 1,427,632	$ 1,470,460	$ 1,514,574	$ 1,560,012	$ 1,606,812	$ 1,655,016
	200	Services							195,068	320,074	331,277	342,872	354,872	367,293	380,148
	300	Materials and Supplies							5,041	12,822	13,078	13,340	13,607	13,879	14,157
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							-	-	-	-	-	-	-
	800	Transfers							-	-	-	-	-	-	-
Subtotal Law									$ 1,546,728	$ 1,760,528	$ 1,814,816	$ 1,870,785	$ 1,928,491	$ 1,987,984	$ 2,049,321
Wastewater System Inter Departmental O&M Summary															
Salaries & W:	100	Salaries & Wages							$ 12,055,758	$ 12,053,220	$ 12,983,580	$ 13,568,479	$ 13,975,407	$ 14,394,510	$ 14,826,132
Benefits	1xx	Benefits							28,435,518	29,083,375	31,082,080	32,642,092	35,116,384	36,531,765	38,296,224
Pension	191	Pension							24,059,596	27,416,377	28,730,953	29,327,333	30,047,410	30,475,624	31,338,885
Pension Oblig	190	Pension Obligations							6,721,541	7,129,708	7,295,220	7,325,793	7,369,719	7,369,611	7,357,386
Power	200	Services							11,689,168	13,406,750	13,835,308	14,352,510	14,810,774	15,284,367	15,776,023
All Other 200	220	Power							-	-	-	-	-	-	-
Chemicals	300	Materials and Supplies							3,900,018	3,720,267	3,794,672	3,879,525	3,951,817	4,012,216	4,065,235
All Other 300	307	Chemicals							-	-	-	-	-	-	-
	400	Equipment							-	-	-	-	-	-	-
	500	Contributions							2,420,531	4,098,330	4,098,330	4,098,330	4,098,330	4,098,330	4,098,330
	800	Transfers							-	-	-	-	-	-	-
Total Wastewater System Inter Departmental O&M Summary									**$ 89,282,130**	**$ 96,908,026**	**$ 101,820,142**	**$ 105,194,061**	**$ 109,369,842**	**$ 112,166,424**	**$ 115,758,214**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PWD Projected Inter Departmental O&M Budget														**InterDept O&M - 6**
Division of Technology														
100	Salaries & Wages	Labor						$ 5,816,911	$ 6,265,289	$ 6,453,248	$ 6,646,845	$ 6,846,250	$ 7,051,638	$ 7,263,187
200	Services	Other 200						11,551,218	14,706,497	15,221,224	15,753,967	16,305,356	16,876,044	17,466,705
300	Materials and Supplies	Other 300						1,817,650	2,025,150	2,065,653	2,106,966	2,149,105	2,192,087	2,235,929
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	General						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Division of Technology								$ 19,185,779	$ 22,996,936	$ 23,740,125	$ 24,507,778	$ 25,300,712	$ 26,119,769	$ 26,965,821
Mayor's Office of Transportation & Utilities														
100	Salaries & Wages	Labor						$ 230,886	$ 202,424	$ 208,497	$ 214,752	$ 221,194	$ 227,830	$ 234,665
200	Services	Other 200						-	30,000	31,050	32,137	33,262	34,426	35,631
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	General						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Mayor's Office of Transportation & Utilities								$ 230,886	$ 232,424	$ 239,547	$ 246,888	$ 254,456	$ 262,256	$ 270,295
Police														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	General						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Police								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services	Property Leases						3,959,919	4,042,633	4,005,055	4,195,582	4,275,707	4,357,599	4,444,751
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Public Property								$ 3,959,919	$ 4,042,633	$ 4,005,055	$ 4,195,582	$ 4,275,707	$ 4,357,599	$ 4,444,751
Fleet Management														
100	Salaries & Wages	Labor						$ 2,969,317	$ 2,969,317	$ 3,058,397	$ 3,150,148	$ 3,244,653	$ 3,341,992	$ 3,442,252
200	Services	Other 200						1,489,000	1,489,000	1,541,115	1,595,054	1,650,881	1,708,662	1,768,465
300	Materials and Supplies	Other 300						4,274,640	4,274,640	4,360,133	4,461,335	4,542,282	4,604,008	4,653,548
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Fleet Management								$ 8,732,957	$ 8,732,957	$ 8,959,644	$ 9,206,538	$ 9,437,816	$ 9,654,662	$ 9,864,265

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance														
100	Salaries & Wages	Labor						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits	Other Benefits						53,120,209	53,115,262	56,560,075	59,360,574	63,831,990	66,375,854	69,567,112
191	Pension	Pension						42,000,000	46,529,000	48,654,080	49,644,900	50,862,380	51,563,180	53,005,385
190	Pension Obligations	Pension Obligations						11,700,000	12,100,000	12,354,000	12,401,000	12,475,000	12,469,000	12,444,000
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000
800	Transfers	General						-	-	-	-	-	-	-
Subtotal City Finance								$ 113,320,209	$ 118,244,262	$ 124,068,155	$ 127,906,474	$ 133,669,370	$ 136,908,034	$ 141,516,497
Revenue														
100	Salaries & Wages	Labor						$ 11,404,254	$ 11,138,839	$ 12,327,004	$ 12,990,194	$ 13,379,710	$ 13,780,861	$ 14,193,967
200	Services	Other 200						4,244,480	4,484,480	4,752,437	4,919,887	5,090,023	5,266,044	5,448,155
300	Materials and Supplies	Other 300						640,920	640,920	653,738	666,813	680,149	693,752	707,627
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						5,000	5,000	5,000	5,000	5,000	5,000	5,000
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Revenue								$ 16,294,654	$ 16,269,239	$ 17,738,179	$ 18,581,895	$ 19,154,883	$ 19,745,658	$ 20,354,750
Procurement														
100	Salaries & Wages	Labor						$ 77,383	$ 77,383	$ 79,704	$ 82,096	$ 84,558	$ 87,095	$ 89,708
200	Services	Other 200						-	-	-	-	-	-	-
300	Materials and Supplies	Other 300						-	-	-	-	-	-	-
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Procurement								$ 77,383	$ 77,383	$ 79,704	$ 82,096	$ 84,558	$ 87,095	$ 89,708
Law														
100	Salaries & Wages	Labor						$ 2,506,206	$ 2,506,206	$ 2,581,392	$ 2,658,834	$ 2,738,599	$ 2,820,757	$ 2,905,380
200	Services	Other 200						691,614	691,614	715,820	740,874	766,805	793,643	821,420
300	Materials and Supplies	Other 300						43,010	43,010	43,870	44,748	45,643	46,555	47,487
400	Equipment	Other 400						-	-	-	-	-	-	-
500	Contributions	Constant						-	-	-	-	-	-	-
800	Transfers	General						-	-	-	-	-	-	-
Subtotal Law								$ 3,240,830	$ 3,240,830	$ 3,341,083	$ 3,444,456	$ 3,551,046	$ 3,660,955	$ 3,774,287

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PWD Inter Departmental Operating and Maintenance Expenses Summary														
100	Salaries & Wages							$ 23,004,957	$ 23,159,458	$ 24,708,242	$ 25,742,869	$ 26,514,965	$ 27,310,174	$ 28,129,159
1xx	Benefits							53,120,209	53,115,262	56,560,075	59,360,574	63,831,990	66,375,854	69,567,112
191	Pension							42,000,000	46,529,000	48,654,080	49,644,900	50,862,380	51,563,180	53,005,385
190	Pension Obligations							11,700,000	12,100,000	12,354,000	12,401,000	12,475,000	12,469,000	12,444,000
200	Services							21,936,231	25,444,224	26,266,702	27,237,501	28,122,033	29,036,417	29,985,127
220	Power							-	-	-	-	-	-	-
300	Materials and Supplies							6,776,220	6,983,720	7,123,394	7,279,862	7,417,180	7,536,403	7,644,591
307	Chemicals							-	-	-	-	-	-	-
400	Equipment							-	-	-	-	-	-	-
500	Contributions							6,505,000	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000
800	Transfers							-	-	-	-	-	-	-
Total PWD Inter Departmental Operating and Maintenance Expenses Summary								**$ 165,042,617**	**$ 173,836,664**	**$ 182,171,493**	**$ 188,171,706**	**$ 195,728,548**	**$ 200,796,028**	**$ 207,280,375**
	Class 100 - Direct & Inter Departmental							**$ 122,064,666**	**$ 126,121,058**	**$ 131,189,690**	**$ 135,626,700**	**$ 140,523,391**	**$ 144,674,233**	**$ 148,723,800**
	Pension & Benefits/Class 100 Ratio							**87.5%**	**88.6%**	**89.6%**	**89.5%**	**90.5%**	**90.1%**	**90.8%**

Cost Center/Expense Class		Escalation Reference	Historical 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total PWD Projected O&M (Direct and Inter Departmental)														**InterDept O&M - 7**
PWD Operating and Maintenance Expenses Summary														
100	Salaries & Wages		$ 101,721,666	$ 101,283,104	$ 100,874,990	$ 104,392,548	$ 108,902,414	$ 118,718,437	$ 123,198,999	$ 129,550,969	$ 133,938,818	$ 138,784,873	$ 142,883,559	$ 146,879,405
1xx	Benefits		39,974,376	42,279,349	38,395,202	40,369,391	41,044,344	48,293,131	49,358,102	52,635,567	55,256,078	59,442,823	61,809,857	64,772,761
191	Pension		20,744,208	32,719,112	38,770,167	35,507,147	38,305,052	40,861,335	46,529,000	48,654,080	49,644,900	50,862,380	51,563,180	53,005,385
190	Pension Obligations		6,749,386	9,449,462	9,843,048	20,452,252	22,450,403	11,415,451	12,100,000	12,354,000	12,401,000	12,475,000	12,469,000	12,444,000
200	Services		86,087,913	89,667,061	99,145,698	105,058,615	107,218,715	115,563,299	125,101,720	134,437,210	135,981,202	139,300,209	143,433,593	147,620,225
220	Power		20,191,277	27,311,199	24,841,360	24,375,674	21,440,579	20,427,534	22,474,933	22,474,933	23,036,807	23,612,727	24,203,045	24,808,121
2xx	SMIP/GARP		-	-	5,025,000	4,925,776	5,020,143	13,598,134	11,450,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
300	Materials and Supplies		20,467,579	21,273,199	23,282,558	23,872,227	22,546,905	23,180,707	24,378,435	25,316,003	26,043,323	26,663,590	27,281,002	27,787,762
307	Chemicals		21,927,884	19,400,817	20,239,205	22,602,203	24,446,114	22,324,969	22,170,391	22,902,014	23,657,780	24,438,487	25,244,957	26,078,041
400	Equipment		1,618,634	1,564,000	2,082,059	1,804,839	2,419,659	1,849,016	2,366,736	2,544,988	2,599,438	2,660,112	2,722,040	2,785,248
500	Contributions		4,897,054	5,383,840	3,047,230	5,090,380	6,036,579	3,842,040	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000	6,505,000
800	Transfers		9,498,869	7,754,262	9,074,729	10,792,914	7,714,419	6,244,621	6,545,139	8,541,493	10,443,738	7,152,050	7,366,611	7,587,610
Total PWD Operating and Maintenance Expenses Summary			**$ 333,878,846**	**$ 358,085,405**	**$ 374,621,246**	**$ 399,243,964**	**$ 407,545,325**	**$ 426,318,674**	**$ 452,178,454**	**$ 480,916,257**	**$ 494,508,083**	**$ 506,897,250**	**$ 520,481,844**	**$ 535,273,558**
PWD Operating and Maintenance Expenses Summary - Annual Increase														
100	Salaries & Wages			-0.43%	-0.40%	3.49%	4.32%	9.01%	3.77%	5.16%	3.39%	3.62%	2.95%	2.80%
1xx	Benefits			5.77%	-9.19%	5.14%	1.67%	17.66%	2.21%	6.64%	4.98%	7.58%	3.98%	4.79%
191	Pension			57.73%	18.49%	-8.42%	7.88%	6.67%	13.87%	4.57%	2.04%	2.45%	1.38%	2.80%
190	Pension Obligations			40.00%	4.17%	107.78%	9.77%	-49.15%	6.00%	2.10%	0.38%	0.60%	-0.05%	-0.20%
200	Services			4.16%	10.57%	5.96%	2.06%	7.78%	8.25%	7.46%	1.15%	2.44%	2.97%	2.92%
220	Power			35.26%	-9.04%	-1.87%	-12.04%	-4.72%	10.02%	0.00%	2.50%	2.50%	2.50%	2.50%
2xx	SMIP/GARP					-1.97%	1.92%	170.87%	-15.80%	31.00%	0.00%	0.00%	0.00%	0.00%
300	Materials and Supplies			3.94%	9.45%	2.53%	-5.55%	2.81%	5.17%	3.85%	2.87%	2.38%	2.32%	1.86%
307	Chemicals			-11.52%	4.32%	11.68%	8.16%	-8.68%	-0.69%	3.30%	3.30%	3.30%	3.30%	3.30%
400	Equipment			-3.38%	33.12%	-13.31%	34.07%	-23.58%	28.00%	7.53%	2.14%	2.33%	2.33%	2.32%
500	Contributions			9.94%	-43.40%	67.05%	18.59%	-36.35%	69.31%	0.00%	0.00%	0.00%	0.00%	0.00%
800	Transfers			-18.37%	17.03%	18.93%	-28.52%	-19.05%	4.81%	30.50%	22.27%	-31.52%	3.00%	3.00%
Total PWD Operating and Maintenance Expenses Summary - Annual Increase				7.25%	4.62%	6.57%	2.08%	4.61%	6.07%	6.36%	2.83%	2.51%	2.68%	2.84%
PWD Operating and Maintenance Expenses Summary - 3 Year Average Increase														
100	Salaries & Wages					0.87%	2.45%	5.58%	5.68%	5.96%	4.10%	4.05%	3.32%	3.12%
1xx	Benefits					0.33%	-0.98%	7.95%	6.93%	8.64%	4.59%	6.39%	5.50%	5.44%
191	Pension					19.62%	5.39%	1.77%	9.43%	8.30%	6.71%	3.01%	1.95%	2.21%
190	Pension Obligations					44.71%	33.44%	5.06%	-16.05%	-18.05%	2.80%	1.02%	0.31%	0.12%
200	Services					6.86%	6.14%	5.24%	5.99%	7.83%	5.57%	3.65%	2.18%	2.78%
220	Power					6.48%	-7.75%	-6.31%	-2.67%	1.58%	4.09%	1.66%	2.50%	2.50%
2xx	SMIP/GARP							39.35%	32.47%	44.03%	3.32%	9.42%	0.00%	0.00%
300	Materials and Supplies					5.26%	1.96%	-0.15%	0.70%	3.94%	3.96%	3.03%	2.52%	2.18%
307	Chemicals					1.01%	8.01%	3.32%	-0.64%	-2.15%	1.95%	3.30%	3.30%	3.30%
400	Equipment					3.70%	15.66%	-3.88%	9.46%	1.70%	12.02%	3.97%	2.27%	2.33%
500	Contributions					1.30%	3.89%	8.03%	8.52%	2.52%	19.19%	0.00%	0.00%	0.00%
800	Transfers					4.35%	-0.17%	-11.71%	-15.36%	3.45%	18.70%	3.00%	-4.81%	-10.10%
Total PWD Operating and Maintenance Expenses Summary - 3 Year Average Increase						6.14%	4.41%	4.40%	4.24%	5.67%	5.07%	3.88%	2.67%	2.68%

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O&M ADJUSTMENTS

Index	Description	Table
O&M Adjustments	**O&M Adjustments Worksheet**	
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O&M Adjustments - 2	O&M Adj 2 - Direct O&M Adjustments	
O&M Adjustments - 3	O&M Adj 3 - Direct O&M Adjustments	
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O&M Adjustments:

Include	O&M Adj #	Description
TRUE	1	Additional SMIP Costs
TRUE	2	General Fund Reimbursement (combined sewer outfall construction)
TRUE	3	AMI
TRUE	4	OOW Additional Staffing, and Class 200 Additions
TRUE	5	Funding for Grants
TRUE	6	HR & Admin Additional Staffing and Class 200 Revision
TRUE	7	P&E Additional Staffing and Class 200 Costs
TRUE	8	Finance Additional Staffing
TRUE	9	Public Affairs Additional Staffing
TRUE	10	Operations Add Package Adjustments
TRUE	11	Affordability Program

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
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	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP						2,000,000		3,550,000	3,550,000	3,550,000	3,550,000	3,550,000
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ 2,000,000	$ -	$ 3,550,000	$ 3,550,000	$ 3,550,000	$ 3,550,000	$ 3,550,000
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 1 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						2,000,000	-	3,550,000	3,550,000	3,550,000	3,550,000	3,550,000
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 1 Summary							**$ 2,000,000**	**$ -**	**$ 3,550,000**	**$ 3,550,000**	**$ 3,550,000**	**$ 3,550,000**	**$ 3,550,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 2	**General Fund Reimbursement (combined sewer outfall construction)**												**O&M Adjustments - 2**
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers								1,800,000	3,500,000			
Subtotal Finance							$ -	$ -	$ 1,800,000	$ 3,500,000	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 2 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	1,800,000	3,500,000	-	-	-
Total PWD O&M Adjustment 2 Summary							**$ -**	**$ -**	**$ 1,800,000**	**$ 3,500,000**	**$ -**	**$ -**	**$ -**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 3	AMI												O&M Adjustments - 3
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages									$ 50,000	$ (48,000)	$ (295,000)	$ (593,000)
200	Services									216,000	(139,000)	(639,000)	(1,347,000)
220	Power												
300	Materials and Supplies									106,000	217,000	331,000	338,000
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ 372,000	$ 30,000	$ (603,000)	$ (1,602,000)
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 3 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ 50,000	$ (48,000)	$ (295,000)	$ (593,000)
200	Services						-	-	-	216,000	(139,000)	(639,000)	(1,347,000)
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	106,000	217,000	331,000	338,000
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 3 Summary							**$ -**	**$ -**	**$ -**	**$ 372,000**	**$ 30,000**	**$ (603,000)**	**$ (1,602,000)**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 4	**OOW Additional Staffing, and Class 200 Additions**												**O&M Adjustments - 4**
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages								$ 771,000	$ 952,000	$ 1,148,000	$ 1,363,000	$ 1,404,000
200	Services								600,000	800,000	1,000,000	1,000,000	1,000,000
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ 1,371,000	$ 1,752,000	$ 2,148,000	$ 2,363,000	$ 2,404,000

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 4 Summary													
100	Salaries & Wages						$ -	$ -	$ 771,000	$ 952,000	$ 1,148,000	$ 1,363,000	$ 1,404,000
200	Services						-	-	600,000	800,000	1,000,000	1,000,000	1,000,000
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 4 Summary							**$ -**	**$ -**	**$ 1,371,000**	**$ 1,752,000**	**$ 2,148,000**	**$ 2,363,000**	**$ 2,404,000**

Cost Center/Expense Class			Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 5	Funding for Grants													O&M Adjustments - 5
Human Resources and Administration														
100	Salaries & Wages													
200	Services													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Human Resources and Administration								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance														
100	Salaries & Wages													
200	Services	NOTE: Includes Affordability Program Grant Adjustment When Active							4,000,000	4,000,000	1,270,000	1,270,000	1,270,000	1,270,000
2xx	SMIP/GARP													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Finance								$ -	$ 4,000,000	$ 4,000,000	$ 1,270,000	$ 1,270,000	$ 1,270,000	$ 1,270,000
Planning and Engineering														
100	Salaries & Wages													
200	Services													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Planning and Engineering								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations														
100	Salaries & Wages													
200	Services													
220	Power													
300	Materials and Supplies													
307	Chemicals													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Operations								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services														
100	Salaries & Wages													
200	Services													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Planning & Environmental Services								$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 5 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services						-	4,000,000	4,000,000	1,270,000	1,270,000	1,270,000	1,270,000
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 5 Summary							**$ -**	**$ 4,000,000**	**$ 4,000,000**	**$ 1,270,000**	**$ 1,270,000**	**$ 1,270,000**	**$ 1,270,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 6	**HR & Admin Additional Staffing and Class 200 Revision**												**O&M Adjustments - 6**
Human Resources and Administration													
100	Salaries & Wages								$ 375,000	$ 386,000	$ 398,000	$ 410,000	$ 422,000
200	Services								1,000,000	1,035,000	1,071,000	1,108,000	1,147,000
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ 1,375,000	$ 1,421,000	$ 1,469,000	$ 1,518,000	$ 1,569,000
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 6 Summary													
100	Salaries & Wages						$ -	$ -	$ 375,000	$ 386,000	$ 398,000	$ 410,000	$ 422,000
200	Services						-	-	1,000,000	1,035,000	1,071,000	1,108,000	1,147,000
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 6 Summary							**$ -**	**$ -**	**$ 1,375,000**	**$ 1,421,000**	**$ 1,469,000**	**$ 1,518,000**	**$ 1,569,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 7	**P&E Additional Staffing and Class 200 Costs**												**O&M Adjustments - 7**
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages								$ 500,000	$ 515,000	$ 530,000	$ 546,000	$ 562,000
200	Services								600,000	621,000	643,000	666,000	689,000
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ 1,100,000	$ 1,136,000	$ 1,173,000	$ 1,212,000	$ 1,251,000
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 7 Summary													
100	Salaries & Wages						$ -	$ -	$ 500,000	$ 515,000	$ 530,000	$ 546,000	$ 562,000
200	Services						-	-	600,000	621,000	643,000	666,000	689,000
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 7 Summary							**$ -**	**$ -**	**$ 1,100,000**	**$ 1,136,000**	**$ 1,173,000**	**$ 1,212,000**	**$ 1,251,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 8	**Finance Additional Staffing**												**O&M Adjustments - 8**
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages								$ 56,000	$ 58,000	$ 60,000	$ 62,000	$ 64,000
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ 56,000	$ 58,000	$ 60,000	$ 62,000	$ 64,000
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 8 Summary													
100	Salaries & Wages						$ -	$ -	$ 56,000	$ 58,000	$ 60,000	$ 62,000	$ 64,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 8 Summary							**$ -**	**$ -**	**$ 56,000**	**$ 58,000**	**$ 60,000**	**$ 62,000**	**$ 64,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 9	**Public Affairs Additional Staffing**												**O&M Adjustments - 9**
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages												
200	Services												
220	Power												
300	Materials and Supplies												
307	Chemicals												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages								$ 100,000	$ 103,000	$ 106,000	$ 109,000	$ 112,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ 100,000	$ 103,000	$ 106,000	$ 109,000	$ 112,000
PWD O&M Adjustment 9 Summary													
100	Salaries & Wages						$ -	$ -	$ 100,000	$ 103,000	$ 106,000	$ 109,000	$ 112,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 9 Summary							**$ -**	**$ -**	**$ 100,000**	**$ 103,000**	**$ 106,000**	**$ 109,000**	**$ 112,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 10	Operations Add Package Adjustments												O&M Adjustments - 10
Human Resources and Administration													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Human Resources and Administration							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance													
100	Salaries & Wages												
200	Services												
2xx	SMIP/GARP												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning and Engineering													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning and Engineering							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations													
100	Salaries & Wages										$ 760,000	$ 783,000	$ 806,000
200	Services								1,760,000	1,708,000	631,000	555,000	574,000
220	Power												
300	Materials and Supplies								450,000	560,000	570,000	585,000	600,000
307	Chemicals												
400	Equipment								125,000	125,000	130,000	135,000	140,000
500	Contributions												
800	Transfers												
Subtotal Operations							$ -	$ -	$ 2,335,000	$ 2,393,000	$ 2,091,000	$ 2,058,000	$ 2,120,000
Planning & Environmental Services													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Planning & Environmental Services							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 10 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ 760,000	$ 783,000	$ 806,000
200	Services						-	-	1,760,000	1,708,000	631,000	555,000	574,000
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	450,000	560,000	570,000	585,000	600,000
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	125,000	125,000	130,000	135,000	140,000
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 10 Summary							**$ -**	**$ -**	**$ 2,335,000**	**$ 2,393,000**	**$ 2,091,000**	**$ 2,058,000**	**$ 2,120,000**

Cost Center/Expense Class			Historical					Study Period						
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
O&M Adj 11	Affordability Program													O&M Adjustments - 11
Human Resources and Administration														
100	Salaries & Wages													
200	Services													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Human Resources and Administration								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Finance														
100	Salaries & Wages													
200	Services	NOTE: BASIS2 Costs Only. Grant Adjustment Included With Adj 5 (Grants)								1,205,000	623,000	645,000	668,000	691,000
2xx	SMIP/GARP													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Finance								$ -	$ -	$ 1,205,000	$ 623,000	$ 645,000	$ 668,000	$ 691,000
Planning and Engineering														
100	Salaries & Wages													
200	Services													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Planning and Engineering								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operations														
100	Salaries & Wages													
200	Services													
220	Power													
300	Materials and Supplies													
307	Chemicals													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Operations								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Planning & Environmental Services														
100	Salaries & Wages													
200	Services													
300	Materials and Supplies													
400	Equipment													
500	Contributions													
800	Transfers													
Subtotal Planning & Environmental Services								$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public Affairs													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Affairs							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD O&M Adjustment 11 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Services						-	-	1,205,000	623,000	645,000	668,000	691,000
220	Power						-	-	-	-	-	-	-
2xx	SMIP/GARP						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD O&M Adjustment 11 Summary							**$ -**	**$ -**	**$ 1,205,000**	**$ 623,000**	**$ 645,000**	**$ 668,000**	**$ 691,000**
Total Adjustments							$ 2,000,000	$ 4,000,000	$ 16,892,000	$ 16,178,000	$ 12,542,000	$ 12,207,000	$ 11,429,000

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
Inter Departmental O&M													
O&M Adj 1	Additional SMIP Costs												O&M Adjustments - 12
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits												
191	Pension												
190	Pension Obligations												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 1 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	-	-	-	-	-
191	Pension						-	-	-	-	-	-	-
190	Pension Obligations						-	-	-	-	-	-	-
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 1 Summary							**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 2	**General Fund Reimbursement (combined sewer outfall construction)**												**O&M Adjustments - 13**
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits												
191	Pension												
190	Pension Obligations												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 2 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	-	-	-	-	-
191	Pension						-	-	-	-	-	-	-
190	Pension Obligations						-	-	-	-	-	-	-
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 2 Summary							**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 3	AMI												O&M Adjustments - 14
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies									14,000	6,000	(23,000)	(66,000)
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ 14,000	$ 6,000	$ (23,000)	$ (66,000)

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits									21,000	(21,000)	(128,000)	(261,000)
191	Pension									19,000	(18,000)	(107,000)	(214,000)
190	Pension Obligations									5,000	(4,000)	(26,000)	(50,000)
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ -	$ 45,000	$ (43,000)	$ (261,000)	$ (525,000)
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 3 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	-	21,000	(21,000)	(128,000)	(261,000)
191	Pension						-	-	-	19,000	(18,000)	(107,000)	(214,000)
190	Pension Obligations						-	-	-	5,000	(4,000)	(26,000)	(50,000)
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	14,000	6,000	(23,000)	(66,000)
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 3 Summary							**$ -**	**$ -**	**$ -**	**$ 59,000**	**$ (37,000)**	**$ (284,000)**	**$ (591,000)**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 4	OOW Additional Staffing, and Class 200 Additions												O&M Adjustments - 15
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits								313,000	393,000	492,000	590,000	619,000
191	Pension								290,000	353,000	421,000	492,000	507,000
190	Pension Obligations								74,000	88,000	103,000	119,000	119,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ 677,000	$ 834,000	$ 1,016,000	$ 1,201,000	$ 1,245,000
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 4 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	313,000	393,000	492,000	590,000	619,000
191	Pension						-	-	290,000	353,000	421,000	492,000	507,000
190	Pension Obligations						-	-	74,000	88,000	103,000	119,000	119,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 4 Summary							**$ -**	**$ -**	**$ 677,000**	**$ 834,000**	**$ 1,016,000**	**$ 1,201,000**	**$ 1,245,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 5	Funding for Grants												O&M Adjustments - 16
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical					Study Period						
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits												
191	Pension												
190	Pension Obligations												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 5 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	-	-	-	-	-
191	Pension						-	-	-	-	-	-	-
190	Pension Obligations						-	-	-	-	-	-	-
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 5 Summary							**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 6	HR & Admin Additional Staffing and Class 200 Revision												O&M Adjustments - 17
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits								152,000	159,000	170,000	177,000	186,000
191	Pension								141,000	143,000	146,000	148,000	152,000
190	Pension Obligations								36,000	36,000	36,000	36,000	36,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ 329,000	$ 338,000	$ 352,000	$ 361,000	$ 374,000
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 6 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	152,000	159,000	170,000	177,000	186,000
191	Pension						-	-	141,000	143,000	146,000	148,000	152,000
190	Pension Obligations						-	-	36,000	36,000	36,000	36,000	36,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 6 Summary							**$ -**	**$ -**	**$ 329,000**	**$ 338,000**	**$ 352,000**	**$ 361,000**	**$ 374,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 7	P&E Additional Staffing and Class 200 Costs												O&M Adjustments - 18
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits								203,000	212,000	227,000	236,000	248,000
191	Pension								188,000	191,000	194,000	197,000	203,000
190	Pension Obligations								48,000	48,000	48,000	48,000	48,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ 439,000	$ 451,000	$ 469,000	$ 481,000	$ 499,000
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 7 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	203,000	212,000	227,000	236,000	248,000
191	Pension						-	-	188,000	191,000	194,000	197,000	203,000
190	Pension Obligations						-	-	48,000	48,000	48,000	48,000	48,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 7 Summary							**$ -**	**$ -**	**$ 439,000**	**$ 451,000**	**$ 469,000**	**$ 481,000**	**$ 499,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 8	Finance Additional Staffing												O&M Adjustments - 19
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits								23,000	24,000	26,000	27,000	28,000
191	Pension								21,000	21,000	22,000	22,000	23,000
190	Pension Obligations								5,000	5,000	5,000	5,000	5,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ 49,000	$ 50,000	$ 53,000	$ 54,000	$ 56,000
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 8 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	23,000	24,000	26,000	27,000	28,000
191	Pension						-	-	21,000	21,000	22,000	22,000	23,000
190	Pension Obligations						-	-	5,000	5,000	5,000	5,000	5,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 8 Summary							**$ -**	**$ -**	**$ 49,000**	**$ 50,000**	**$ 53,000**	**$ 54,000**	**$ 56,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 9	**Public Affairs Additional Staffing**												**O&M Adjustments - 20**
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits								41,000	42,000	45,000	47,000	49,000
191	Pension								38,000	38,000	39,000	39,000	40,000
190	Pension Obligations								10,000	10,000	10,000	10,000	9,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ 89,000	$ 90,000	$ 94,000	$ 96,000	$ 98,000
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 9 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	41,000	42,000	45,000	47,000	49,000
191	Pension						-	-	38,000	38,000	39,000	39,000	40,000
190	Pension Obligations						-	-	10,000	10,000	10,000	10,000	9,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 9 Summary							**$ -**	**$ -**	**$ 89,000**	**$ 90,000**	**$ 94,000**	**$ 96,000**	**$ 98,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 10	**Operations Add Package Adjustments**												**O&M Adjustments - 21**
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits										326,000	339,000	355,000
191	Pension										279,000	283,000	291,000
190	Pension Obligations										68,000	68,000	68,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ -	$ -	$ 673,000	$ 690,000	$ 714,000
Revenue													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 8 Summary													
100	Salaries & Wages						$ -	$ -	$ -	$ -	$ -	$ -	$ -
1xx	Benefits						-	-	-	-	326,000	339,000	355,000
191	Pension						-	-	-	-	279,000	283,000	291,000
190	Pension Obligations						-	-	-	-	68,000	68,000	68,000
200	Services						-	-	-	-	-	-	-
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 8 Summary							**$ -**	**$ -**	**$ -**	**$ -**	**$ 673,000**	**$ 690,000**	**$ 714,000**

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
O&M Adj 11	Affordability Program												O&M Adjustments - 22
Division of Technology													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Division of Technology							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Mayor's Office of Transportation & Utilities													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Mayor's Office of Transportation & Utilities							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Police													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Police							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Public Property													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Public Property							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Fleet Management													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Fleet Management							$ -	$ -	$ -	$ -	$ -	$ -	$ -

Cost Center/Expense Class		Historical 2010	2011	2012	2013	2014	Study Period 2015	2016	2017	2018	2019	2020	2021
City Finance													
100	Salaries & Wages												
1xx	Benefits								347,000	484,000	517,000	538,000	565,000
191	Pension								321,000	435,000	443,000	449,000	462,000
190	Pension Obligations								81,000	109,000	109,000	109,000	109,000
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal City Finance							$ -	$ -	$ 749,000	$ 1,028,000	$ 1,069,000	$ 1,096,000	$ 1,136,000
Revenue													
100	Salaries & Wages								$ 854,000	$ 1,173,000	$ 1,208,000	$ 1,244,000	$ 1,281,000
200	Services								111,000	116,000	118,000	120,000	122,000
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Revenue							$ -	$ -	$ 965,000	$ 1,289,000	$ 1,326,000	$ 1,364,000	$ 1,403,000
Procurement													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Procurement							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Law													
100	Salaries & Wages												
200	Services												
300	Materials and Supplies												
400	Equipment												
500	Contributions												
800	Transfers												
Subtotal Law							$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWD Inter Departmental O&M Adjustment 11 Summary													
100	Salaries & Wages						$ -	$ -	$ 854,000	$ 1,173,000	$ 1,208,000	$ 1,244,000	$ 1,281,000
1xx	Benefits						-	-	347,000	484,000	517,000	538,000	565,000
191	Pension						-	-	321,000	435,000	443,000	449,000	462,000
190	Pension Obligations						-	-	81,000	109,000	109,000	109,000	109,000
200	Services						-	-	111,000	116,000	118,000	120,000	122,000
220	Power						-	-	-	-	-	-	-
300	Materials and Supplies						-	-	-	-	-	-	-
307	Chemicals						-	-	-	-	-	-	-
400	Equipment						-	-	-	-	-	-	-
500	Contributions						-	-	-	-	-	-	-
800	Transfers						-	-	-	-	-	-	-
Total PWD Inter Departmental O&M Adjustment 11 Summary							**$ -**	**$ -**	**$ 1,714,000**	**$ 2,317,000**	**$ 2,395,000**	**$ 2,460,000**	**$ 2,539,000**

Cost Center/Expense Class	Historical					Study Period						
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Adjustments						$ -	$ -	$ 3,297,000	$ 4,139,000	$ 5,015,000	$ 5,059,000	$ 4,934,000

FINPLAN15.XLS

CAPITAL

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

Water Capital Projects

Capital Projects - Scen 4 - 1A

Engineering and Administration								
	Low	$ 12,251,180	$ 13,858,880	$ 15,789,500	$ 16,263,300	$ 16,750,900	$ 17,253,680	$ 17,771,180
	Medium	-	-	-	-	-	-	-
Subtotal Engineering and Administration		$ 12,251,180	$ 13,858,880	$ 15,789,500	$ 16,263,300	$ 16,750,900	$ 17,253,680	$ 17,771,180
Water Treatment Plant								
	Medium	$ 52,800,000	$ 43,072,920	$ 43,120,000	$ 43,120,000	$ 43,120,000	$ 43,120,000	$ 43,120,000
	Medium	-	-	-	-	-	-	-
Subtotal Water Treatment Plant		$ 52,800,000	$ 43,072,920	$ 43,120,000	$ 43,120,000	$ 43,120,000	$ 43,120,000	$ 43,120,000
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	$ 34,060,000	$ 44,060,000	$ 46,060,000	$ 46,060,000	$ 46,060,000	$ 46,060,000	$ 46,060,000
	Medium	-	-	-	-	-	-	-
Subtotal Distribution System		$ 34,060,000	$ 44,060,000	$ 46,060,000	$ 46,060,000	$ 46,060,000	$ 46,060,000	$ 46,060,000

Large Meter Replacement								
	Medium	$ 2,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000
	Medium	-	-	-	20,000,000	20,000,000	20,000,000	-
Subtotal Large Meter Replacement		$ 2,000,000	$ 5,000,000	$ 5,000,000	$ 25,000,000	$ 25,000,000	$ 25,000,000	$ 5,000,000
Vehicles								
	Medium	$ 1,000,000	$ 5,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000
	Medium	-	-	-	-	-	-	-
Subtotal Vehicles		$ 1,000,000	$ 5,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000
Other								
	Medium	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Medium	-	-	-	-	-	-	-
Subtotal Other		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Water Capital Projects		**$ 102,111,180**	**$ 110,991,800**	**$ 113,969,500**	**$ 134,443,300**	**$ 134,930,900**	**$ 135,433,680**	**$ 115,951,180**

Water Capital Projects

Capital Projects - Scen 4 - 1B

Engineering and Administration								
	0.00%	12,251,180	13,858,880	15,789,500	16,263,300	16,750,900	17,253,700	17,771,200
	4.00%	-	-	-	-	-	-	-
Subtotal Engineering and Administration		$ 12,251,180	$ 13,858,880	$ 15,789,500	$ 16,263,300	$ 16,750,900	$ 17,253,700	$ 17,771,200
Water Treatment Plant								
	4.00%	52,800,000	43,072,920	43,120,000	44,844,800	46,638,600	48,504,100	50,444,300
	4.00%	-	-	-	-	-	-	-
Subtotal Water Treatment Plant		$ 52,800,000	$ 43,072,920	$ 43,120,000	$ 44,844,800	$ 46,638,600	$ 48,504,100	$ 50,444,300
Pumping Station								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Pumping Station		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Mains								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Water Mains		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Filtered Water Storage								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Filtered Water Storage		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Load Control Center Expansion								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Load Control Center Expansion		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Distribution System								
	4.00%	34,060,000	44,060,000	46,060,000	47,902,400	49,818,500	51,811,200	53,883,700
	4.00%	-	-	-	-	-	-	-
Subtotal Distribution System		$ 34,060,000	$ 44,060,000	$ 46,060,000	$ 47,902,400	$ 49,818,500	$ 51,811,200	$ 53,883,700

Large Meter Replacement								
	4.00%	2,000,000	5,000,000	5,000,000	5,200,000	5,408,000	5,624,300	5,849,300
	4.00%	-	-	-	20,800,000	21,632,000	22,497,300	-
Subtotal Large Meter Replacement		$ 2,000,000	$ 5,000,000	$ 5,000,000	$ 26,000,000	$ 27,040,000	$ 28,121,600	$ 5,849,300
Vehicles								
	4.00%	1,000,000	5,000,000	4,000,000	4,160,000	4,326,400	4,499,500	4,679,400
	4.00%	-	-	-	-	-	-	-
Subtotal Vehicles		$ 1,000,000	$ 5,000,000	$ 4,000,000	$ 4,160,000	$ 4,326,400	$ 4,499,500	$ 4,679,400
Other								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Other		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Water Capital Projects		**$ 102,111,180**	**$ 110,991,800**	**$ 113,969,500**	**$ 139,170,500**	**$ 144,574,400**	**$ 150,190,100**	**$ 132,627,900**

Wastewater Capital Projects — Capital Projects - Scen 4 - 2A

Engineering and Administration								
	Low	$ 14,381,820	$ 16,269,120	$ 18,535,500	$ 19,091,700	$ 19,664,100	$ 20,254,320	$ 20,861,820
	Medium	-	-	-	-	-	-	-
Subtotal Engineering and Administration		$ 14,381,820	$ 16,269,120	$ 18,535,500	$ 19,091,700	$ 19,664,100	$ 20,254,320	$ 20,861,820
Water Pollution Control Plant Improvements								
	Medium	$ 67,200,000	$ 54,820,080	$ 54,880,000	$ 54,880,000	$ 54,880,000	$ 54,880,000	$ 54,880,000
	Medium	5,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000
Subtotal Water Pollution Control Plant Improvements		$ 72,200,000	$ 66,820,080	$ 66,880,000	$ 66,880,000	$ 66,880,000	$ 66,880,000	$ 66,880,000
Storm Flood Relief								
	Medium	$ -	$ 15,000,000	$ 15,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 15,000,000
	Medium	-	-	-	-	-	-	-
Subtotal Storm Flood Relief		$ -	$ 15,000,000	$ 15,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 15,000,000
Reconstruction of Old Sewers								
Sewer Reconstruction	Medium	$ 30,660,000	$ 30,660,000	$ 30,660,000	$ 30,660,000	$ 30,660,000	$ 30,660,000	$ 30,660,000
Incterceptor Rehab	Medium	-	4,300,000	4,340,000	4,340,000	4,340,000	4,340,000	4,600,000
Subtotal Reconstruction of Old Sewers		$ 30,660,000	$ 34,960,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 35,000,000	$ 35,260,000
Green Infrastructure								
Stream Restoration	Medium	$ -	$ 5,000,000	$ 10,000,000	$ -	$ -	$ -	$ 10,000,000
	Medium	-	-	7,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Green Infrastructure	Medium	40,000,000	30,000,000	30,000,000	37,000,000	37,000,000	37,000,000	37,000,000
Subtotal Green Infrastructure		$ 40,000,000	$ 35,000,000	$ 47,000,000	$ 52,000,000	$ 52,000,000	$ 52,000,000	$ 62,000,000
Vehicles								
	Medium	$ 1,000,000	$ 5,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000
	Medium	-	-	-	-	-	-	-
Subtotal Vehicles		$ 1,000,000	$ 5,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000	$ 4,000,000

Other															
	Medium	$	-	$	-	$	-	$	-	$	-	$	-	$	-
	Medium		-		-		-		-		-		-		-
Subtotal Other		$	-	$	-	$	-	$	-	$	-	$	-	$	-
Consent Decree/Wet Weather Plan Projects															
	Medium	$	-	$	-	$	-	$	-	$	-	$	-	$	-
	Medium		-		-		-		-		-		-		-
Subtotal Consent Decree/Wet Weather Plan Projects		$	-	$	-	$	-	$	-	$	-	$	-	$	-
Total Wastewater Capital Projects		**$**	**158,241,820**	**$**	**173,049,200**	**$**	**186,415,500**	**$**	**186,971,700**	**$**	**187,544,100**	**$**	**188,134,320**	**$**	**204,001,820**

Wastewater Capital Projects		Capital Projects - Scen 4 - 2B						
Engineering and Administration								
	0.00%	14,381,820	16,269,120	18,535,500	19,091,700	19,664,100	20,254,300	20,861,800
	4.00%	-	-	-	-	-	-	-
Subtotal Engineering and Administration		$ 14,381,820	$ 16,269,120	$ 18,535,500	$ 19,091,700	$ 19,664,100	$ 20,254,300	$ 20,861,800
Water Pollution Control Plant Improvements								
	4.00%	67,200,000	54,820,080	54,880,000	57,075,200	59,358,200	61,732,500	64,201,800
	4.00%	5,000,000	12,000,000	12,000,000	12,480,000	12,979,200	13,498,400	14,038,300
Subtotal Water Pollution Control Plant Impr		$ 72,200,000	$ 66,820,080	$ 66,880,000	$ 69,555,200	$ 72,337,400	$ 75,230,900	$ 78,240,100
Storm Flood Relief								
	4.00%	-	15,000,000	15,000,000	10,400,000	10,816,000	11,248,600	17,547,900
	4.00%	-	-	-	-	-	-	-
Subtotal Storm Flood Relief		$ -	$ 15,000,000	$ 15,000,000	$ 10,400,000	$ 10,816,000	$ 11,248,600	$ 17,547,900
Reconstruction of Old Sewers								
Sewer Reconstruction	4.00%	30,660,000	30,660,000	30,660,000	31,886,400	33,161,900	34,488,300	35,867,900
Incterceptor Rehab	4.00%	-	4,300,000	4,340,000	4,513,600	4,694,100	4,881,900	5,381,300
Subtotal Reconstruction of Old Sewers		$ 30,660,000	$ 34,960,000	$ 35,000,000	$ 36,400,000	$ 37,856,000	$ 39,370,200	$ 41,249,200
Green Infrastructure								
Stream Restoration	4.00%	-	5,000,000	10,000,000	-	-	-	11,698,600
	4.00%	-	-	7,000,000	15,600,000	16,224,000	16,873,000	17,547,900
Green Infrastructure	4.00%	40,000,000	30,000,000	30,000,000	38,480,000	40,019,200	41,620,000	43,284,800
Subtotal Green Infrastructure		$ 40,000,000	$ 35,000,000	$ 47,000,000	$ 54,080,000	$ 56,243,200	$ 58,493,000	$ 72,531,300
Vehicles								
	4.00%	1,000,000	5,000,000	4,000,000	4,160,000	4,326,400	4,499,500	4,679,400
	4.00%	-	-	-	-	-	-	-
Subtotal Vehicles		$ 1,000,000	$ 5,000,000	$ 4,000,000	$ 4,160,000	$ 4,326,400	$ 4,499,500	$ 4,679,400

Other								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Other		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Consent Decree/Wet Weather Plan Projects								
	4.00%	-	-	-	-	-	-	-
	4.00%	-	-	-	-	-	-	-
Subtotal Consent Decree/Wet Weather Plar		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Wastewater Capital Projects		**$ 158,241,820**	**$ 173,049,200**	**$ 186,415,500**	**$ 193,686,900**	**$ 201,243,100**	**$ 209,096,500**	**$ 235,109,700**

Combined System							Capital Projects - Scen 4 - 3A
Total	**$ 260,353,000**	**$ 284,041,000**	**$ 300,385,000**	**$ 321,415,000**	**$ 322,475,000**	**$ 323,568,000**	**$ 319,953,000**
Total CIP Inflated	$ 260,353,000	$ 284,041,000	$ 300,385,000	$ 332,857,400	$ 345,817,500	$ 359,286,600	$ 367,737,600
Total Net Funding Requirement	$ 174,108,714	$ 242,552,674	$ 282,000,000	$ 300,000,000	$ 300,000,000	$ 300,000,000	$ 300,000,000
Estimated Monthly Spending	$ 14,509,060	$ 20,212,723	$ 23,500,000	$ 25,000,000	$ 25,000,000	$ 25,000,000	$ 25,000,000
	0.668740956						
Annual Balance of Appropriations	$ 86,244,286	$ 41,488,326	$ 18,385,000	$ 32,857,400	$ 45,817,500	$ 59,286,600	$ 67,737,600
Cumulative Balance of Appropriations	$ 86,244,286	$ 127,732,612	$ 146,117,612	$ 178,975,012	$ 224,792,512	$ 284,079,112	$ 351,816,712
Expenses/Appropriations	66.9%	85.4%	93.9%	90.1%	86.8%	83.5%	81.6%

Combined System	Capital Projects - Scen 4 - 3B						
Total	**$ 260,353,000**	**$ 284,041,000**	**$ 300,385,000**	**$ 332,857,400**	**$ 345,817,500**	**$ 359,286,600**	**$ 367,737,600**
Total CIP Inflated							
Total Net Funding Requirement							
Estimated Monthly Spending							
Annual Balance of Appropriations							
Cumulative Balance of Appropriations							
Expenses/Appropriations							

FINPLAN15.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
Allocation	50.68%	49.32%		48.00%	52.00%		41.00%	59.00%	
Fiscal Year									
2014	$ -	$ -	$ -	$ 1,574,629	$ 1,705,848	$ 3,280,477	$ 15,997,495	$ 23,020,786	$ 39,018,281
2015	-	-		1,806,794	1,957,360	3,764,155	15,999,494	23,023,662	39,023,156
2016	-	-		2,507,760	2,716,740	5,224,500	-	-	
2017	-	-		2,550,960	2,763,540	5,314,500	-	-	
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	-	-		-	-		-	-	
Total Existing Debt	**$ -**	**$ -**	**$ -**	**$ 38,275,503**	**$ 41,465,128**	**$ 79,740,632**	**$ 31,996,989**	**$ 46,044,448**	**$ 78,041,438**

Existing Debt Service

Revenue Bond Debt Service

DS - 1b

Revenue Bonds	Series 2001A&B Refunding			Series 2005A			Series 2005B		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	43.00%	57.00%		49.67%	50.33%		49.67%	50.33%	
Fiscal Year									
2014	$ -	$ -	$ -	$ 8,070,580	$ 8,177,820	$ 16,248,400	$ 9,039,295	$ 9,159,406	$ 18,198,701
2015	-	-		5,592,407	5,666,718	11,259,125	9,052,934	9,173,226	18,226,160
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	-	-		-	-		-	-	
Total Existing Debt	**$ -**	**$ -**	**$ -**	**$ 16,620,960**	**$ 16,841,815**	**$ 33,462,775**	**$ 45,530,382**	**$ 46,135,376**	**$ 91,665,757**

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
Allocation	32.00%	68.00%		32.00%	68.00%		37.00%	63.00%	
Fiscal Year									
2014	$ 4,761,384	$ 10,117,941	$ 14,879,325	$ 2,293,656	$ 4,874,019	$ 7,167,675	$ 2,698,794	$ 4,595,244	$ 7,294,038
2015	2,096,384	4,454,816	6,551,200	2,293,784	4,874,291	7,168,075	2,698,794	4,595,244	7,294,038
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	4,283,984	9,103,466	13,387,450	2,293,656	4,874,019	7,167,675	4,228,744	7,200,294	11,429,038
2018	4,284,264	9,104,061	13,388,325	2,293,400	4,873,475	7,166,875	4,229,498	7,201,577	11,431,075
2019	4,283,024	9,101,426	13,384,450	2,293,016	4,872,659	7,165,675	4,229,410	7,201,428	11,430,838
2020	861,984	1,831,716	2,693,700	2,293,592	4,873,883	7,167,475	4,230,386	7,203,089	11,433,475
2021	861,984	1,831,716	2,693,700	4,641,272	9,862,703	14,503,975	4,229,072	7,200,853	11,429,925
2022	861,984	1,831,716	2,693,700	2,163,352	4,597,123	6,760,475	4,228,952	7,200,648	11,429,600
2023	861,984	1,831,716	2,693,700	4,760,632	10,116,343	14,876,975	4,229,442	7,201,483	11,430,925
2024	5,040,992	10,712,108	15,753,100	4,771,628	10,139,710	14,911,338	4,229,424	7,201,451	11,430,875
2025	5,044,108	10,718,730	15,762,838	4,776,728	10,150,547	14,927,275	4,229,225	7,201,113	11,430,338
2026	5,039,788	10,709,550	15,749,338	1,721,072	3,657,278	5,378,350	4,229,609	7,201,766	11,431,375
2027	5,043,600	10,717,650	15,761,250	1,721,320	3,657,805	5,379,125	4,230,534	7,203,341	11,433,875
2028	850,720	1,807,780	2,658,500	1,721,424	3,658,026	5,379,450	4,229,054	7,200,821	11,429,875
2029	-	-		1,721,384	3,657,941	5,379,325	4,229,045	7,200,806	11,429,850
2030	-	-		13,032,084	27,693,179	40,725,263	4,229,609	7,201,766	11,431,375
2031	-	-		13,035,066	27,699,515	40,734,581	4,229,803	7,202,097	11,431,900
2032	-	-		13,037,246	27,704,148	40,741,394	4,229,239	7,201,136	11,430,375
2033	-	-		-	-		4,229,378	7,201,373	11,430,750
2034	-	-		-	-		4,229,734	7,201,979	11,431,713
2035	-	-		-	-		4,229,822	7,202,129	11,431,950
2036	-	-		-	-		4,229,156	7,200,995	11,430,150
2037	-	-		-	-		-	-	
2038	-	-		-	-		-	-	
2039	-	-		-	-		-	-	
2040	-	-		-	-		-	-	
2041	-	-		-	-		-	-	
2042	-	-		-	-		-	-	
2043	-	-		-	-		-	-	
2044	-	-		-	-		-	-	
2045	-	-		-	-		-	-	
2046	-	-		-	-		-	-	
Total Existing Debt	**$ 45,514,888**	**$ 96,719,137**	**$ 142,234,025**	**$ 83,158,096**	**$ 176,710,954**	**$ 259,869,050**	**$ 92,685,513**	**$ 157,815,874**	**$ 250,501,388**

Existing Debt Service

Revenue Bond Debt Service

DS - 1d

Revenue Bonds	Series 2010A Refunding			Series 2010C			Series 2011A		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	46.00%	54.00%		20.00%	80.00%		20.00%	80.00%	
Fiscal Year									
2014	$ 28,188,701	$ 33,091,084	$ 61,279,785	$ 1,804,450	$ 7,217,800	$ 9,022,250	$ 1,347,400	$ 5,389,600	$ 6,737,000
2015	28,196,958	33,100,777	61,297,735	1,804,450	7,217,800	9,022,250	1,347,400	5,389,600	6,737,000
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	7,999,225	31,996,900	39,996,125	1,347,400	5,389,600	6,737,000
2018	17,223,871	20,219,327	37,443,198	7,999,275	31,997,100	39,996,375	1,347,400	5,389,600	6,737,000
2019	17,228,672	20,224,963	37,453,635	1,737,010	6,948,040	8,685,050	1,347,400	5,389,600	6,737,000
2020	-	-		1,737,495	6,949,980	8,687,475	1,347,400	5,389,600	6,737,000
2021	-	-		1,737,370	6,949,480	8,686,850	1,347,400	5,389,600	6,737,000
2022	-	-		1,737,245	6,948,980	8,686,225	1,347,400	5,389,600	6,737,000
2023	-	-		1,737,420	6,949,680	8,687,100	1,347,400	5,389,600	6,737,000
2024	-	-		1,737,033	6,948,130	8,685,163	1,347,400	5,389,600	6,737,000
2025	-	-		1,737,370	6,949,480	8,686,850	1,347,400	5,389,600	6,737,000
2026	-	-		1,736,865	6,947,460	8,684,325	1,347,400	5,389,600	6,737,000
2027	-	-		1,736,820	6,947,280	8,684,100	1,347,400	5,389,600	6,737,000
2028	-	-		1,737,255	6,949,020	8,686,275	1,347,400	5,389,600	6,737,000
2029	-	-		1,737,285	6,949,140	8,686,425	1,347,400	5,389,600	6,737,000
2030	-	-		1,737,390	6,949,560	8,686,950	1,347,400	5,389,600	6,737,000
2031	-	-		1,736,930	6,947,720	8,684,650	1,347,400	5,389,600	6,737,000
2032	-	-		1,737,480	6,949,920	8,687,400	1,347,400	5,389,600	6,737,000
2033	-	-		1,737,475	6,949,900	8,687,375	3,797,400	15,189,600	18,987,000
2034	-	-		1,736,670	6,946,680	8,683,350	3,797,500	15,190,000	18,987,500
2035	-	-		1,736,916	6,947,665	8,684,581	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	-	-		-	-		-	-	
Total Existing Debt	**$ 158,535,359**	**$ 186,106,726**	**$ 344,642,085**	**$ 61,366,118**	**$245,464,470**	**$306,830,588**	**$ 59,780,835**	**$ 239,123,340**	**$ 298,904,175**

Existing Debt Service

Revenue Bond Debt Service

DS - 1e

Revenue Bonds	Series 2011B			Series 2012			Series 2013A		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	20.00%	80.00%		20.44%	79.56%		19.38%	80.62%	
Fiscal Year									
2014	$ 492,100	$ 1,968,400	$ 2,460,500	$ 1,229,991	$ 4,787,284	$ 6,017,275	$ -	$ -	
2015	492,100	1,968,400	2,460,500	1,231,499	4,793,151	6,024,650	1,641,454	6,830,246	8,471,700
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	664,384	2,585,866	3,250,250	2,278,527	9,481,173	11,759,700
2019	1,888,225	7,552,900	9,441,125	664,384	2,585,866	3,250,250	2,245,347	9,343,103	11,588,450
2020	1,881,550	7,526,200	9,407,750	664,384	2,585,866	3,250,250	7,524,990	31,312,210	38,837,200
2021	540,350	2,161,400	2,701,750	664,384	2,585,866	3,250,250	7,427,521	30,906,629	38,334,150
2022	1,957,675	7,830,700	9,788,375	664,384	2,585,866	3,250,250	5,393,311	22,442,089	27,835,400
2023	467,125	1,868,500	2,335,625	664,384	2,585,866	3,250,250	5,394,038	22,445,112	27,839,150
2024	467,975	1,871,900	2,339,875	664,384	2,585,866	3,250,250	496,503	2,065,997	2,562,500
2025	467,825	1,871,300	2,339,125	664,384	2,585,866	3,250,250	496,503	2,065,997	2,562,500
2026	467,650	1,870,600	2,338,250	2,595,598	10,102,402	12,698,000	496,503	2,065,997	2,562,500
2027	467,400	1,869,600	2,337,000	2,602,190	10,128,060	12,730,250	496,503	2,065,997	2,562,500
2028	-	-		2,592,404	10,089,971	12,682,375	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	-	-		-	-		-	-	
Total Existing Debt	**$ 13,520,950**	**$ 54,083,800**	**$ 67,604,750**	**$ 24,103,015**	**$ 93,812,035**	**$ 117,915,050**	**$ 54,989,668**	**$ 228,817,313**	**$ 283,806,981**

Existing Debt Service

Revenue Bond Debt Service

DS - 1f

Revenue Bonds	Series 2014A			Series 2015B Refunding			TOTAL REVENUE BONDS		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	19.38%	80.62%		37.73%	62.27%				
Fiscal Year									
2014	$ -	$ -		$ -	$ -		$ 77,498,475	$ 114,105,231	$ 191,603,706
2015	1,090,362	4,537,103	5,627,465	-	-		75,344,814	117,582,395	192,927,209
2016	1,161,333	4,832,417	5,993,750	1,820,105	3,003,716	4,823,821	80,287,106	118,314,470	198,601,576
2017	2,293,020	9,541,480	11,834,500	2,569,559	4,240,541	6,810,100	58,467,125	123,113,224	181,580,348
2018	2,291,107	9,533,518	11,824,625	2,569,559	4,240,541	6,810,100	58,726,152	124,042,635	182,768,787
2019	2,281,904	9,495,221	11,777,125	2,569,559	4,240,541	6,810,100	43,435,122	89,839,313	133,274,435
2020	2,280,572	9,489,678	11,770,250	6,382,667	10,533,308	16,915,975	31,824,379	90,533,171	122,357,550
2021	2,278,925	9,482,825	11,761,750	6,383,941	10,535,409	16,919,350	32,764,698	89,780,002	122,544,700
2022	2,278,242	9,479,983	11,758,225	6,384,318	10,536,032	16,920,350	29,699,582	81,749,018	111,448,600
2023	2,276,900	9,474,400	11,751,300	6,383,327	10,534,398	16,917,725	30,832,732	81,333,018	112,165,750
2024	2,274,798	9,465,652	11,740,450	1,724,938	2,846,662	4,571,600	25,489,633	62,189,517	87,679,150
2025	2,273,088	9,458,537	11,731,625	1,724,938	2,846,662	4,571,600	25,517,728	62,223,672	87,741,400
2026	2,270,109	9,446,141	11,716,250	1,724,938	2,846,662	4,571,600	24,451,211	63,294,276	87,745,488
2027	2,267,735	9,436,265	11,704,000	1,724,938	2,846,662	4,571,600	24,474,520	63,334,680	87,809,200
2028	2,265,725	9,427,900	11,693,625	1,724,938	2,846,662	4,571,600	19,859,823	52,571,377	72,431,200
2029	290,636	1,209,364	1,500,000	5,473,666	9,033,184	14,506,850	22,503,415	63,558,535	86,061,950
2030	290,636	1,209,364	1,500,000	5,467,204	9,022,521	14,489,725	26,600,826	59,531,987	86,132,813
2031	290,636	1,209,364	1,500,000	5,462,252	9,014,348	14,476,600	26,598,590	59,528,641	86,127,231
2032	290,636	1,209,364	1,500,000	5,456,404	9,004,696	14,461,100	26,594,907	59,524,861	86,119,769
2033	290,636	1,209,364	1,500,000	5,451,027	8,995,823	14,446,850	16,002,418	41,612,057	57,614,475
2034	290,636	1,209,364	1,500,000	5,443,716	8,983,759	14,427,475	15,994,759	41,597,779	57,592,538
2035	290,636	1,209,364	1,500,000	5,439,387	8,976,613	14,416,000	15,990,798	41,591,908	57,582,706
2036	290,636	1,209,364	1,500,000	5,430,407	8,961,793	14,392,200	15,981,940	41,579,104	57,561,044
2037	290,636	1,209,364	1,500,000	-	-		6,321,914	25,414,461	31,736,375
2038	290,636	1,209,364	1,500,000	-	-		6,321,964	25,414,661	31,736,625
2039	290,636	1,209,364	1,500,000	-	-		6,321,964	25,414,661	31,736,625
2040	290,636	1,209,364	1,500,000	-	-		6,322,289	25,415,961	31,738,250
2041	290,636	1,209,364	1,500,000	-	-		9,391,479	38,187,146	47,578,625
2042	2,086,257	8,681,118	10,767,375	-	-		5,652,496	23,520,579	29,173,075
2043	2,085,797	8,679,203	10,765,000	-	-		5,651,344	23,515,787	29,167,131
2044	2,086,306	8,681,319	10,767,625	-	-		2,086,306	8,681,319	10,767,625
2045	-	-		-	-		-	-	-
2046	-	-		-	-		-	-	-
Total Existing Debt	**$ 39,620,445**	**$ 164,864,495**	**$ 204,484,940**	**$ 87,311,785**	**$ 144,090,536**	**$ 231,402,321**			

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2a

	Series 1999			Series 2009B			Series 2009C		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	100.00%	0.00%		100.00%	0.00%		100.00%	0.00%	
Fiscal Year	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2014	$ 90,665	$ -	$ 90,665	$ 2,411,341	$ -	$ 2,411,341	$ 3,220,002	$ -	$ 3,220,002
2015	90,665	-	90,665	2,411,341	-	2,411,341	3,220,002	-	3,220,002
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	3,220,002	-	3,220,002
2018	90,665	-	90,665	2,534,763	-	2,534,763	3,439,753	-	3,439,753
2019	75,554	-	75,554	2,575,904	-	2,575,904	3,439,753	-	3,439,753
2020	-	-		2,575,904	-	2,575,904	3,439,753	-	3,439,753
2021	-	-		2,575,904	-	2,575,904	3,440,117	-	3,440,117
2022	-	-		2,575,904	-	2,575,904	3,439,753	-	3,439,753
2023	-	-		2,575,904	-	2,575,904	3,439,753	-	3,439,753
2024	-	-		2,575,904	-	2,575,904	3,439,753	-	3,439,753
2025	-	-		2,212,745	-	2,212,745	3,439,753	-	3,439,753
2026	-	-		-	-		2,888,268	-	2,888,268
2027	-	-		-	-		-	-	
2028	-	-		-	-		-	-	
2029	-	-		-	-		-	-	
2030	-	-		-	-		-	-	
2031	-	-		-	-		-	-	
2032	-	-		-	-		-	-	
2033	-	-		-	-		-	-	
2034	-	-		-	-		-	-	
2035	-	-		-	-		0	-	0
2036	-	-		-	-		-	-	
2037	-	-		-	-		-	-	
2038	-	-		-	-		-	-	
2039	-	-		-	-		-	-	
2040	-	-		-	-		-	-	
2041	-	-		-	-		-	-	
2042	-	-		-	-		-	-	
2043	-	-		-	-		-	-	
2044	-	-		-	-		-	-	
2045	-	-		-	-		-	-	
2046	-	-		-	-		-	-	
Total Existing Debt	**$ 528,879**	**$ -**	**$ 528,879**	**$ 29,848,294**	**$ -**	**$ 29,848,294**	**$ 43,286,668**	**$ -**	**$ 43,286,668**

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2b

	Series 2009D			Series 2010B			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	0.00%	100.00%		0.00%	100.00%		49.67%	50.33%	
Fiscal Year	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2014	$ -	$ 4,911,276	$ 4,911,276	$ -	$ 1,161,335	$ 1,161,335	$ -	$ -	$ -
2015	-	4,911,276	4,911,276	-	1,709,868	1,709,868	-	-	
2016	-	4,911,276	4,911,276	-	1,709,868	1,709,868	-	-	
2017	-	4,911,276	4,911,276	-	1,709,868	1,709,868	-	-	
2018	-	5,151,663	5,151,663	-	1,709,868	1,709,868	-	-	
2019	-	5,231,791	5,231,791	-	1,797,386	1,797,386	-	-	
2020	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2021	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2022	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2023	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2024	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2025	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2026	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2027	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2028	-	5,231,791	5,231,791	-	1,826,559	1,826,559	-	-	
2029	-	648,243	648,243	-	1,826,559	1,826,559	-	-	
2030	-	-		-	1,826,559	1,826,559	-	-	
2031	-	-		-	1,826,559	1,826,559	-	-	
2032	-	-		-	1,826,559	1,826,559	-	-	
2033	-	-		-	132,326	132,326	-	-	
2034	-	-		-	-		-	-	
2035	-	0	0	-	-		-	-	
2036	-	-		-	-		-	-	
2037	-	-		-	0	0	-	-	
2038	-	-		-	-		-	-	
2039	-	-		-	-		-	-	
2040	-	-		-	-		-	-	
2041	-	-		-	-		-	-	
2042	-	-		-	-		-	-	
2043	-	-		-	-		-	-	
2044	-	-		-	-		-	-	
2045	-	-		-	-		-	-	
2046	-	-		-	-		-	-	
Total Existing Debt	**$ -**	**$ 77,762,925**	**$ 77,762,925**	**$ -**	**$ 33,675,782**	**$ 33,675,782**	**$ -**	**$ -**	**$ -**

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2c

	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	32.00%	68.00%		32.00%	68.00%		37.00%	63.00%	
Fiscal Year	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
Total Existing Debt	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2d

	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	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
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
Total Existing Debt	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2e

	Series xxxx			Series xxxx			Series xxxx		
	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I	Water	Wastewater	Total P&I
Allocation	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
2014	$ -	$ -	$ -	$ -	$ -		$ -	$ -	
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
Total Existing Debt	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Existing Debt Service

Parity PENNVEST Debt Service

DS - 2f

Allocation	TOTAL PENNVEST REVENUE BONDS		
Fiscal Year	Water	Wastewater	Total P&I
2014	$ 5,722,008	$ 6,072,611	$ 11,794,619
2015	5,722,008	6,621,144	12,343,152
2016	5,722,008	6,621,144	12,343,152
2017	5,722,008	6,621,144	12,343,152
2018	6,065,181	6,861,531	12,926,712
2019	6,091,211	7,029,177	13,120,389
2020	6,015,657	7,058,350	13,074,007
2021	6,016,021	7,058,350	13,074,371
2022	6,015,657	7,058,350	13,074,007
2023	6,015,657	7,058,350	13,074,007
2024	6,015,657	7,058,350	13,074,007
2025	5,652,498	7,058,350	12,710,848
2026	2,888,268	7,058,350	9,946,618
2027	-	7,058,350	7,058,350
2028	-	7,058,350	7,058,350
2029	-	2,474,802	2,474,802
2030	-	1,826,559	1,826,559
2031	-	1,826,559	1,826,559
2032	-	1,826,559	1,826,559
2033	-	132,326	132,326
2034	-	-	-
2035	0	0	0
2036	-	-	-
2037	-	0	0
2038	-	-	-
2039	-	-	-
2040	-	-	-
2041	-	-	-
2042	-	-	-
2043	-	-	-
2044	-	-	-
2045	-	-	-
2046	-	-	-
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									
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
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									
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
Total Existing Debt	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Existing Debt Service

G.O. Bond Debt Service

DS - 3c

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									
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
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									
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
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									
2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2015	-	-		-	-		-	-	
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	-	-		-	-		-	-	
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			
2014	$ -	$ -	$ -
2015	-	-	-
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	-	-	-
Total Existing Debt			

Proposed Debt Service

Proposed Revenue Bonds

DS - 4

Capital Financing Assumptions	2015	2016	2017	2018	2019	2020	2021
Future Revenue Bonds							
Issuance Amount	$ 308,638,000	$ -	$ 270,000,000	$ 275,000,000	$ 280,000,000	$ 270,000,000	$ 285,000,000
Annual Payment	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
Debt Service Reserve Requirement	7,051,848	-	2,948,146	-	-	18,067,572	9,230,222
Term (yrs)	30	30	30	30	30	30	30
Interest Rate	5.00%	5.25%	5.25%	5.25%	5.25%	5.25%	5.50%
Issuance Costs	0.51%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Month of Sale (July=1)	7	12	7	7	7	7	7
Capitalized Interest term (yrs)	0	0	0	0	0	0	0
Interest Only Period (years)	3	1	1	0	0	0	0
Water Allocation	42.00%	0.00%	43.00%	41.09%	44.64%	38.89%	36.84%
Wastewater Allocation	58.00%	100.00%	57.00%	58.91%	55.36%	61.11%	63.16%

Future Revenue Bonds Schedules	Series 2015	Series 2016	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021
2015	$ -						
2016	15,431,900	$ -					
2017	15,431,900	-	$ -				
2018	15,431,900	-	14,175,000	$ -			
2019	21,077,463	-	18,331,861	18,402,157	$ -		
2020	21,077,463	-	18,331,861	18,402,157	18,736,741	$ -	
2021	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	$ -
2022	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2023	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2024	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2025	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2026	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2027	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2028	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2029	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2030	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2031	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2032	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2033	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2034	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2035	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2036	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2037	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2038	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2039	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2040	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2041	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2042	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2043	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2044	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2045	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2046	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2047	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
2048	21,077,463	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
Total Proposed Revenue Bonds	**$ 678,619,591**	**$ -**	**$ 564,130,838**	**$ 552,064,702**	**$ 543,365,500**	**$ 505,892,017**	**$ 529,457,474**
	$ 678,619,591	**$ -**	**$ 564,130,838**	**$ 552,064,702**	**$ 562,102,242**	**$ 542,027,162**	**$ 588,286,082**

INPUT	Series 2015	Series 2016	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021
2015	-						
2016	9,768,625						
2017	13,791,000	-					
2018	13,791,000	-		-			
2019	13,791,000	-					
2020	13,791,000	-				-	
2021	13,791,000	-				-	-
2022	13,791,000	-				-	-
2023	13,791,000	-				-	-
2024	13,791,000	-				-	-
2025	13,791,000	-				-	-
2026	13,791,000	-				-	-
2027	13,791,000	-				-	-
2028	13,791,000	-				-	-
2029	13,791,000	-				-	-
2030	13,791,000	-				-	-
2031	13,791,000	-				-	-
2032	13,791,000	-				-	-
2033	13,791,000	-				-	-
2034	13,791,000	-				-	-
2035	13,791,000	-				-	-
2036	13,791,000	-				-	-
2037	35,046,000	-				-	-
2038	35,043,125	-				-	-
2039	35,043,000	-				-	-
2040	35,047,500	-				-	-
2041	35,043,625	-				-	-
2042	35,043,250	-				-	-
2043	35,042,875	-				-	-
2044	35,043,875	-				-	-
2045	35,042,500	-				-	-
2046	35,044,750	-				-	-
2047	-	-				-	-
2048	-	-				-	-
Total Proposed Revenue Bonds	**$ 636,029,125**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

USE		Series 2015	Series 2016	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021
	2015	$ -						
	2016	9,768,625	$ -					
	2017	13,791,000	-	$ -				
	2018	13,791,000	-	14,175,000	$ -			
	2019	13,791,000	-	18,331,861	18,402,157	$ -		
	2020	13,791,000	-	18,331,861	18,402,157	18,736,741	$ -	
	2021	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	$ -
	2022	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2023	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2024	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2025	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2026	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2027	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2028	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2029	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2030	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2031	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2032	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2033	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2034	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2035	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2036	13,791,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2037	35,046,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2038	35,043,125	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2039	35,043,000	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2040	35,047,500	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2041	35,043,625	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2042	35,043,250	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2043	35,042,875	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2044	35,043,875	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2045	35,042,500	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2046	35,044,750	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2047	-	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
	2048	-	-	18,331,861	18,402,157	18,736,741	18,067,572	19,609,536
Total Proposed Revenue Bonds		**$ 636,029,125**	**$ -**	**$ 564,130,838**	**$ 552,064,702**	**$ 543,365,500**	**$ 505,892,017**	**$ 529,457,474**

Future State Revolving Fund

DS - 5

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

Future State Revolving Fund Schedules

	2015	2016	2017	2018	2019	2020	2021
2015	-	-	-	-	-	-	-
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 Proposed SRF Loans	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Future G.O. Bonds

DS - 6

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

Future G.O. Bonds Schedules	**Series 2015**	**Series 2016**	**Series 2017**	**Series 2018**	**Series 2019**	**Series 2020**	**Series 2021**
2015	-	-	-	-	-	-	-
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 Proposed G.O. Bonds	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Existing & Proposed Debt Service

PWD Debt Service

Debt Service Summary

	2015	2016	2017	2018	2019	2020	2021
Existing Debt Service							
Revenue Bonds	$ 192,927,209	$ 198,601,576	$ 181,580,348	$ 182,768,787	$ 133,274,435	$ 122,357,550	$ 122,544,700
Parity PENNVEST	12,343,152	12,343,152	12,343,152	12,926,712	13,120,389	13,074,007	13,074,371
Subtotal Senior Debt	$ 205,270,361	$ 210,944,728	$ 193,923,501	$ 195,695,499	$ 146,394,824	$ 135,431,557	$ 135,619,071
G.O. Bonds	-	-	-	-	-	-	-
Total Existing Debt Service	$ 205,270,361	$ 210,944,728	$ 193,923,501	$ 195,695,499	$ 146,394,824	$ 135,431,557	$ 135,619,071
Proposed Debt Service							
Revenue Bonds	$ -	$ 9,768,625	$ 13,791,000	$ 27,966,000	$ 50,525,018	$ 69,261,759	$ 87,329,331
Parity PENNVEST	-	-	-	-	-	-	-
Subtotal Senior Debt	$ -	$ 9,768,625	$ 13,791,000	$ 27,966,000	$ 50,525,018	$ 69,261,759	$ 87,329,331
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	$ -	$ 9,768,625	$ 13,791,000	$ 27,966,000	$ 50,525,018	$ 69,261,759	$ 87,329,331
Total Debt Service	$ 205,270,361	$ 220,713,353	$ 207,714,501	$ 223,661,499	$ 196,919,842	$ 204,693,317	$ 222,948,403

Cumulative Revenue Bond Debt Service

	Existing Debt	Series 2015	Series 2016	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021
2015	$ 205,270,361	$ 205,270,361						
2016	210,944,728	220,713,353	220,713,353					
2017	193,923,501	207,714,501	207,714,501	207,714,501				
2018	195,695,499	209,486,499	209,486,499	223,661,499	223,661,499			
2019	146,394,824	160,185,824	160,185,824	178,517,685	196,919,842	196,919,842		
2020	135,431,557	149,222,557	149,222,557	167,554,419	185,956,575	204,693,317	204,693,317	
2021	135,619,071	149,410,071	149,410,071	167,741,933	186,144,089	204,880,831	222,948,403	222,948,403
2022	124,522,607	138,313,607	138,313,607	156,645,469	175,047,625	193,784,367	211,851,939	231,461,475
2023	125,239,757	139,030,757	139,030,757	157,362,619	175,764,775	194,501,517	212,569,089	232,178,625
2024	100,753,157	114,544,157	114,544,157	132,876,019	151,278,175	170,014,917	188,082,489	207,692,025
2025	100,452,248	114,243,248	114,243,248	132,575,109	150,977,266	169,714,007	187,781,580	207,391,116
2026	97,692,105	111,483,105	111,483,105	129,814,967	148,217,123	166,953,865	185,021,437	204,630,973
2027	94,867,550	108,658,550	108,658,550	126,990,411	145,392,568	164,129,310	182,196,882	201,806,418
2028	79,489,550	93,280,550	93,280,550	111,612,411	130,014,568	148,751,310	166,818,882	186,428,418
2029	88,536,752	102,327,752	102,327,752	120,659,613	139,061,770	157,798,511	175,866,083	195,475,619
2030	87,959,371	101,750,371	101,750,371	120,082,233	138,484,389	157,221,131	175,288,703	194,898,239
2031	87,953,790	101,744,790	101,744,790	120,076,651	138,478,808	157,215,549	175,283,121	194,892,658
2032	87,946,328	101,737,328	101,737,328	120,069,189	138,471,346	157,208,087	175,275,659	194,885,195
2033	57,746,801	71,537,801	71,537,801	89,869,662	108,271,819	127,008,560	145,076,132	164,685,668
2034	57,592,538	71,383,538	71,383,538	89,715,399	108,117,555	126,854,297	144,921,869	164,531,405
2035	57,582,706	71,373,706	71,373,706	89,705,568	108,107,724	126,844,466	144,912,038	164,521,574
2036	57,561,044	71,352,044	71,352,044	89,683,905	108,086,062	126,822,803	144,890,375	164,499,911
2037	31,736,375	66,782,375	66,782,375	85,114,236	103,516,393	122,253,134	140,320,706	159,930,242
2038	31,736,625	66,779,750	66,779,750	85,111,611	103,513,768	122,250,509	140,318,081	159,927,617
2039	31,736,625	66,779,625	66,779,625	85,111,486	103,513,643	122,250,384	140,317,956	159,927,492
2040	31,738,250	66,785,750	66,785,750	85,117,611	103,519,768	122,256,509	140,324,081	159,933,617
2041	47,578,625	82,622,250	82,622,250	100,954,111	119,356,268	138,093,009	156,160,581	175,770,117
2042	29,173,075	64,216,325	64,216,325	82,548,186	100,950,343	119,687,084	137,754,656	157,364,192
2043	29,167,131	64,210,006	64,210,006	82,541,868	100,944,024	119,680,766	137,748,338	157,357,874
2044	10,767,625	45,811,500	45,811,500	64,143,361	82,545,518	101,282,259	119,349,831	138,959,367
2045	-	35,042,500	35,042,500	53,374,361	71,776,518	90,513,259	108,580,831	128,190,367
2046	-	35,044,750	35,044,750	53,376,611	71,778,768	90,515,509	108,583,081	128,192,617
Max	$ 210,944,728	$ 220,713,353	$ 220,713,353	$ 223,661,499	$ 223,661,499	$ 204,880,831	$ 222,948,403	$ 232,178,625
Required DSR Deposit		$ 7,051,848	$ -	$ 2,948,146	$ -	$ -	$ 18,067,572	$ 9,230,222
						$ (18,780,668)		$ 9,230,222

Water System Debt Service

DS - 8

Debt Service Summary

	2015	2016	2017	2018	2019	2020	2021
Existing Debt Service							
Revenue Bonds	$ 75,344,814	$ 80,287,106	$ 58,467,125	$ 58,726,152	$ 43,435,122	$ 31,824,379	$ 32,764,698
Parity PENNVEST	5,722,008	5,722,008	5,722,008	6,065,181	6,091,211	6,015,657	6,016,021
Subtotal Senior Debt	$ 81,066,822	$ 86,009,114	$ 64,189,133	$ 64,791,333	$ 49,526,333	$ 37,840,036	$ 38,780,719
G.O. Bonds	-	-	-	-	-	-	-
Total Existing Debt Service	$ 81,066,822	$ 86,009,114	$ 64,189,133	$ 64,791,333	$ 49,526,333	$ 37,840,036	$ 38,780,719
Proposed Debt Service							
Revenue Bonds	$ -	$ 4,102,823	$ 5,792,220	$ 11,887,470	$ 21,236,534	$ 29,601,151	$ 36,627,429
Parity PENNVEST	-	-	-	-	-	-	-
Subtotal Senior Debt	$ -	$ 4,102,823	$ 5,792,220	$ 11,887,470	$ 21,236,534	$ 29,601,151	$ 36,627,429
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	$ -	$ 4,102,823	$ 5,792,220	$ 11,887,470	$ 21,236,534	$ 29,601,151	$ 36,627,429
Total Debt Service	$ 81,066,822	$ 90,111,937	$ 69,981,353	$ 76,678,803	$ 70,762,867	$ 67,441,187	$ 75,408,147

Cumulative Revenue Bond Debt Service

	Existing Debt	Series 2015	Series 2016	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021
2015	81,066,822	81,066,822						
2016	86,009,114	92,490,512	92,490,512					
2017	64,189,133	70,670,531	70,670,531	70,670,531				
2018	64,791,333	71,272,731	71,272,731	77,367,981	77,367,981			
2019	49,526,333	58,378,868	58,378,868	66,261,568	73,823,182	73,823,182		
2020	37,840,036	46,692,571	46,692,571	54,575,271	62,136,885	70,501,501	70,501,501	
2021	38,780,719	47,633,253	47,633,253	55,515,954	63,077,567	71,442,184	78,468,462	78,468,462
2022	35,715,240	44,567,774	44,567,774	52,450,474	60,012,088	68,376,705	75,402,983	82,627,549
2023	36,848,389	45,700,924	45,700,924	53,583,624	61,145,238	69,509,854	76,536,132	83,760,698
2024	31,505,290	40,357,825	40,357,825	48,240,525	55,802,139	64,166,755	71,193,033	78,417,599
2025	31,170,226	40,022,760	40,022,760	47,905,460	55,467,074	63,831,691	70,857,969	78,082,535
2026	27,339,479	36,192,013	36,192,013	44,074,714	51,636,327	60,000,944	67,027,222	74,251,788
2027	24,474,520	33,327,054	33,327,054	41,209,755	48,771,368	57,135,985	64,162,263	71,386,829
2028	19,859,823	28,712,357	28,712,357	36,595,057	44,156,671	52,521,288	59,547,566	66,772,131
2029	22,503,415	31,355,949	31,355,949	39,238,650	46,800,263	55,164,880	62,191,158	69,415,724
2030	26,600,826	35,453,360	35,453,360	43,336,061	50,897,674	59,262,291	66,288,569	73,513,135
2031	26,598,590	35,451,124	35,451,124	43,333,825	50,895,438	59,260,055	66,286,333	73,510,899
2032	26,594,907	35,447,442	35,447,442	43,330,142	50,891,756	59,256,372	66,282,650	73,507,216
2033	16,002,418	24,854,953	24,854,953	32,737,653	40,299,267	48,663,883	55,690,161	62,914,727
2034	15,994,759	24,847,293	24,847,293	32,729,994	40,291,607	48,656,224	55,682,502	62,907,068
2035	15,990,798	24,843,333	24,843,333	32,726,033	40,287,647	48,652,263	55,678,541	62,903,107
2036	15,981,940	24,834,474	24,834,474	32,717,175	40,278,788	48,643,405	55,669,683	62,894,249
2037	6,321,914	15,174,448	15,174,448	23,057,149	30,618,762	38,983,379	46,009,657	53,234,223
2038	6,321,964	15,174,498	15,174,498	23,057,199	30,618,812	38,983,429	46,009,707	53,234,273
2039	6,321,964	15,174,498	15,174,498	23,057,199	30,618,812	38,983,429	46,009,707	53,234,273
2040	6,322,289	15,174,823	15,174,823	23,057,524	30,619,137	38,983,754	46,010,032	53,234,598
2041	9,391,479	18,244,014	18,244,014	26,126,714	33,688,328	42,052,944	49,079,222	56,303,788
2042	5,652,496	14,505,030	14,505,030	22,387,730	29,949,344	38,313,961	45,340,239	52,564,805
2043	5,651,344	14,503,878	14,503,878	22,386,579	29,948,192	38,312,809	45,339,087	52,563,653
2044	2,086,306	10,938,840	10,938,840	18,821,541	26,383,154	34,747,771	41,774,049	48,998,615
2045	-	8,852,534	8,852,534	16,735,235	24,296,848	32,661,465	39,687,743	46,912,309
2046	-	8,852,534	8,852,534	16,735,235	24,296,848	32,661,465	39,687,743	46,912,309

Max	$ 86,009,114	$ 92,490,512	$ 92,490,512	$ 77,367,981	$ 77,367,981	$ 73,823,182	$ 78,468,462	$ 83,760,698
Required DSR Deposit		$ 6,481,398	$ -	$ -	$ -	$ -	$ 4,645,280	$ 5,292,236

Wastewater System Debt Service

DS - 9

Debt Service Summary

	2015	2016	2017	2018	2019	2020	2021
Existing Debt Service							
Revenue Bonds	$ 117,582,395	$ 118,314,470	$ 123,113,224	$ 124,042,635	$ 89,839,313	$ 90,533,171	$ 89,780,002
Parity PENNVEST	6,621,144	6,621,144	6,621,144	6,861,531	7,029,177	7,058,350	7,058,350
Subtotal Senior Debt	$ 124,203,539	$ 124,935,614	$ 129,734,368	$ 130,904,166	$ 96,868,490	$ 97,591,521	$ 96,838,353
G.O. Bonds	-	-	-	-	-	-	-
Total Existing Debt Service	$ 124,203,539	$ 124,935,614	$ 129,734,368	$ 130,904,166	$ 96,868,490	$ 97,591,521	$ 96,838,353
Proposed Debt Service							
Revenue Bonds	$ -	$ 5,665,803	$ 7,998,780	$ 16,078,530	$ 29,288,484	$ 39,660,609	$ 50,701,903
Parity PENNVEST	-	-	-	-	-	-	-
Subtotal Senior Debt	$ -	$ 5,665,803	$ 7,998,780	$ 16,078,530	$ 29,288,484	$ 39,660,609	$ 50,701,903
G.O. Bonds	-	-	-	-	-	-	-
Total Debt Service	$ -	$ 5,665,803	$ 7,998,780	$ 16,078,530	$ 29,288,484	$ 39,660,609	$ 50,701,903
Total Debt Service	$ 124,203,539	$ 130,601,416	$ 137,733,148	$ 146,982,696	$ 126,156,975	$ 137,252,130	$ 147,540,256

Cumulative Revenue Bond Debt Service

	Existing Debt	Series 2015	Series 2016	Series 2017	Series 2018	Series 2019	Series 2020	Series 2021
2015	124,203,539	124,203,539						
2016	124,935,614	128,222,841	128,222,841					
2017	129,734,368	137,043,970	137,043,970	137,043,970				
2018	130,904,166	138,213,768	138,213,768	146,293,518	146,293,518			
2019	96,868,490	101,806,956	101,806,956	112,256,117	123,096,660	123,096,660		
2020	97,591,521	102,529,987	102,529,987	112,979,148	123,819,691	134,191,815	134,191,815	
2021	96,838,353	101,776,818	101,776,818	112,225,979	123,066,522	133,438,647	144,479,941	144,479,941
2022	88,807,368	93,745,833	93,745,833	104,194,994	115,035,537	125,407,662	136,448,956	148,833,926
2023	88,391,368	93,329,834	93,329,834	103,778,995	114,619,538	124,991,663	136,032,957	148,417,927
2024	69,247,867	74,186,333	74,186,333	84,635,494	95,476,037	105,848,162	116,889,456	129,274,426
2025	69,282,022	74,220,488	74,220,488	84,669,649	95,510,192	105,882,317	116,923,611	129,308,581
2026	70,352,626	75,291,092	75,291,092	85,740,253	96,580,796	106,952,921	117,994,215	130,379,185
2027	70,393,030	75,331,496	75,331,496	85,780,657	96,621,200	106,993,325	118,034,619	130,419,589
2028	59,629,728	64,568,193	64,568,193	75,017,354	85,857,897	96,230,022	107,271,316	119,656,286
2029	66,033,337	70,971,802	70,971,802	81,420,963	92,261,506	102,633,631	113,674,925	126,059,895
2030	61,358,545	66,297,011	66,297,011	76,746,172	87,586,715	97,958,840	109,000,134	121,385,104
2031	61,355,200	66,293,666	66,293,666	76,742,827	87,583,370	97,955,494	108,996,788	121,381,759
2032	61,351,420	66,289,886	66,289,886	76,739,047	87,579,590	97,951,715	108,993,009	121,377,979
2033	41,744,383	46,682,848	46,682,848	57,132,009	67,972,552	78,344,677	89,385,971	101,770,941
2034	41,597,779	46,536,244	46,536,244	56,985,405	67,825,948	78,198,073	89,239,367	101,624,337
2035	41,591,908	46,530,373	46,530,373	56,979,534	67,820,078	78,192,202	89,233,496	101,618,466
2036	41,579,104	46,517,570	46,517,570	56,966,730	67,807,274	78,179,398	89,220,692	101,605,663
2037	25,414,461	51,607,927	51,607,927	62,057,088	72,897,631	83,269,755	94,311,049	106,696,020
2038	25,414,661	51,605,252	51,605,252	62,054,413	72,894,956	83,267,080	94,308,374	106,693,345
2039	25,414,661	51,605,127	51,605,127	62,054,288	72,894,831	83,266,955	94,308,249	106,693,220
2040	25,415,961	51,610,927	51,610,927	62,060,088	72,900,631	83,272,755	94,314,049	106,699,020
2041	38,187,146	64,378,236	64,378,236	74,827,397	85,667,940	96,040,065	107,081,359	119,466,329
2042	23,520,579	49,711,295	49,711,295	60,160,456	71,000,999	81,373,124	92,414,418	104,799,388
2043	23,515,787	49,706,128	49,706,128	60,155,289	70,995,832	81,367,957	92,409,251	104,794,221
2044	8,681,319	34,872,660	34,872,660	45,321,821	56,162,364	66,534,489	77,575,783	89,960,753
2045	-	26,189,966	26,189,966	36,639,126	47,479,670	57,851,794	68,893,088	81,278,059
2046	-	35,044,750	35,044,750	53,376,611	71,778,768	90,515,509	108,583,081	128,192,617
Max $	130,904,166	$ 138,213,768	$ 138,213,768	$ 146,293,518	$ 146,293,518	$ 134,191,815	$ 144,479,941	$ 148,833,926
Required DSR Deposit		$ 7,309,602	$ -	$ 8,079,750	$ -	$ -	$ 10,288,126	$ 4,353,985

FINPLAN15.XLS

FUNDS

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

Description	2015	2016	2017	2018	2019	2020	2021
Combined Utility Funds							**Funds - 1**
Projected Flow of Funds - Construction Fund							
Construction Funds Available							
Beginning Balance	$ 241,647,000	$ 426,507,197	$ 238,163,781	$ 279,396,237	$ 309,518,388	$ 355,659,792	$ 376,575,265
Transfer from Revenue Bond Proceeds	308,638,000	-	270,000,000	275,000,000	280,000,000	270,000,000	285,000,000
PENNVest Loan Proceeds	-	-	-	-	-	-	-
General Obligation Bonds	-	-	-	-	-	-	-
Non-City Sources	371,242	-	7,155,293	-	-	-	-
Grants	-						
Transfer from Residual Fund (Cash Financing)	36,700,000	31,800,000	30,400,000	35,900,000	46,300,000	48,300,000	54,200,000
Capital Account Deposit	20,697,000	21,215,000	21,745,375	22,289,009	22,846,235	23,417,390	24,002,825
Interest	1,200,517	1,194,258	929,934	1,058,142	1,195,169	1,315,655	1,445,127
Total Funds Available	$ 609,253,759	$ 480,716,455	$ 568,394,383	$ 613,643,388	$ 659,859,792	$ 698,692,837	$ 741,223,217
Construction Funds Used							
Capital Improvements	$ 174,108,714	$ 242,552,674	$ 282,000,000	$ 300,000,000	$ 300,000,000	$ 300,000,000	$ 300,000,000
Revenue Bond Issuance Expense	1,586,000	-	4,050,000	4,125,000	4,200,000	4,050,000	4,275,000
Revenue Bond Debt Service Reserve Requirement	7,051,848	-	2,948,146	-	-	18,067,572	9,230,222
State Revolving Fund Issuance Expense	-	-	-	-	-	-	-
General Obligation Bond Issuance Expense	-	-	-	-	-	-	-
Total Funds Utilized	$ 182,746,562	$ 242,552,674	$ 288,998,146	$ 304,125,000	$ 304,200,000	$ 322,117,572	$ 313,505,222
Ending Balance	**$ 426,507,197**	**$ 238,163,781**	**$ 279,396,237**	**$ 309,518,388**	**$ 355,659,792**	**$ 376,575,265**	**$ 427,717,995**
Balance Target	**$ 303,190,843**	**$ 235,000,000**	**$ 250,000,000**	**$ 250,000,000**	**$ 250,000,000**	**$ 250,000,000**	**$ 282,500,000**
Interest Income	$ 1,200,517	$ 1,194,258	$ 929,934	$ 1,058,142	$ 1,195,169	$ 1,315,655	$ 1,445,127
Projected Flow of Funds - Rate Stabilization							
Rate Stabilization Funds Available							
Beginning Balance	$ 184,796,000	$ 206,206,000	$ 169,306,000	$ 150,006,000	$ 111,006,000	$ 123,306,000	$ 123,406,000
Deposit From (to) Operating Fund	21,410,000	(36,900,000)	(19,300,000)	(39,000,000)	12,300,000	100,000	(1,200,000)
Ending Balance	**$ 206,206,000**	**$ 169,306,000**	**$ 150,006,000**	**$ 111,006,000**	**$ 123,306,000**	**$ 123,406,000**	**$ 122,206,000**
Interest Income	$ 703,804	$ 675,922	$ 574,762	$ 469,822	$ 421,762	$ 444,082	$ 442,102
Projected Flow of Funds - Debt Service Reserve							
Debt Service Reserve Funds Available							
Beginning Balance	$ 212,067,661	$ 219,119,509	$ 219,119,509	$ 222,067,655	$ 222,067,655	$ 203,286,987	$ 221,354,559
Transfer From Bond Proceeds	7,051,848	-	2,948,146	-	-	18,067,572	9,230,222
Transfer From Residual Fund	-	-	-	-	-	-	-
Debt Service Fund Release	-	-	-	-	(18,780,668)	-	-
Ending Balance	**$ 219,119,509**	**$ 219,119,509**	**$ 222,067,655**	**$ 222,067,655**	**$ 203,286,987**	**$ 221,354,559**	**$ 230,584,781**
Interest Income	$ 776,137	$ 788,830	$ 794,137	$ 799,444	$ 765,638	$ 764,355	$ 813,491

Description	2015	2016	2017	2018	2019	2020	2021
Projected Flow of Funds - Revenue Fund							
Revenue Funds Available							
Beginning Balance	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000
Existing Service Charge Revenues	648,663,309	644,101,407	640,640,898	636,557,318	632,853,318	629,553,044	626,240,483
Additional Service Charge Revenues	-	-	34,734,682	70,905,862	103,739,577	137,854,174	179,574,403
Other Operating Revenue	27,067,717	22,873,604	22,293,245	6,132,961	24,159,645	4,531,201	3,682,344
Interest Earnings	374,269	279,842	309,768	285,775	397,635	380,418	389,673
Construction Fund Interest Earnings	-	-	-	-	-	-	-
Debt Service Reserve Interest Earnings (above SCOOP)	-	-	-	-	-	-	-
Rate Stabilization Fund Interest Earnings	703,804	675,922	574,762	469,822	421,762	444,082	442,102
Transfer from Rate Stabilization Fund	-	36,900,000	19,300,000	39,000,000	-	-	1,200,000
Total Funds Available	$ 746,809,098	$ 774,830,775	$ 789,753,355	$ 823,351,738	$ 831,571,936	$ 846,362,918	$ 882,429,005
Revenue Funds Used							
Total Operating Expense	$ 402,907,674	$ 431,073,863	$ 458,170,550	$ 471,456,641	$ 483,322,256	$ 496,282,164	$ 510,453,555
Total Senior Debt Service	205,270,361	220,713,353	207,714,501	223,661,499	196,919,842	204,693,317	222,948,403
Total Subordinate Debt Service	-	-	-	-	-	-	-
Capital Account Deposit	20,697,000	21,215,000	21,745,375	22,289,009	22,846,235	23,417,390	24,002,825
Transfer to Rate Stabilization Fund	21,410,000	-	-	-	12,300,000	100,000	-
Transfer to Residual Fund	26,524,063	31,828,560	30,222,929	35,944,589	46,183,603	48,270,047	54,124,222
Total Funds Utilized	$ 676,809,098	$ 704,830,775	$ 719,753,355	$ 753,351,738	$ 761,571,936	$ 776,362,918	$ 812,429,005
Ending Balance	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000	$ 70,000,000
Projected Flow of Funds - Residual Fund							
Operating Funds Available							
Beginning Balance	$ 25,275,000	$ 15,171,737	$ 15,254,966	$ 15,132,494	$ 15,231,640	$ 15,169,868	$ 15,194,472
Transfer from Revenue Fund	26,524,063	31,828,560	30,222,929	35,944,589	46,183,603	48,270,047	54,124,222
Interest on Debt Service Reserve to fund Transfer to General Fund	776,137	788,830	794,137	799,444	765,638	764,355	813,491
Transfer to Debt Service Reserve	-	-	-	-	-	-	-
Transfer to Construction Fund	(36,700,000)	(31,800,000)	(30,400,000)	(35,900,000)	(46,300,000)	(48,300,000)	(54,200,000)
Transfer To General Fund	(776,137)	(788,830)	(794,137)	(799,444)	(765,638)	(764,355)	(813,491)
Ending Balance (prior to interest)	$ 15,099,063	$ 15,200,296	$ 15,077,895	$ 15,177,083	$ 15,115,243	$ 15,139,915	$ 15,118,694
Interest Income	72,673	54,670	54,599	54,557	54,624	54,558	54,564
Ending Balance	**$ 15,171,737**	**$ 15,254,966**	**$ 15,132,494**	**$ 15,231,640**	**$ 15,169,868**	**$ 15,194,472**	**$ 15,173,258**

Description	2015	2016	2017	2018	2019	2020	2021
Water Utility Fund Balances							**Funds - 2**
Projected Flow of Funds - Construction Fund							
Construction Funds Available							
Beginning Balance	94,425,930	$ 175,122,569	$ 102,452,355	$ 129,219,220	$ 135,519,218	$ 158,633,727	$ 153,802,072
Transfer from Revenue Bond Proceeds	129,627,960	-	116,100,000	113,000,000	125,000,000	105,000,000	105,000,000
PENNVest Loan Proceeds	-	-	-	-	-	-	-
General Obligation Bonds	-	-	-	-	-	-	-
Non-City Sources	-	-	2,625,179	-	-	-	-
Grants							
Transfer from Residual Fund (Cash Financing)	14,000,000	12,900,000	8,700,000	10,800,000	15,500,000	14,000,000	16,600,000
Capital Account Deposit	8,498,188	8,710,879	8,928,651	9,151,867	9,380,664	9,615,181	9,855,560
Interest	484,316	498,737	416,260	475,673	528,524	561,374	586,595
Total Funds Available	$ 247,036,393	$ 197,232,185	$ 239,222,444	$ 262,646,761	$ 285,928,406	$ 287,810,281	$ 285,844,227
Construction Funds Used							
Capital Improvements	$ 68,285,928	$ 94,779,831	$ 106,994,021	$ 125,432,543	$ 125,419,679	$ 125,406,931	$ 108,197,720
Revenue Bond Issuance Expense	666,120	-	1,741,500	1,695,000	1,875,000	1,575,000	1,575,000
Revenue Bond Debt Service Reserve Requirement	2,961,776	-	1,267,703	-	-	7,026,278	3,400,608
State Revolving Fund Issuance Expense	-	-	-	-	-	-	-
General Obligation Bond Issuance Expense	-	-	-	-	-	-	-
Total Funds Utilized	$ 71,913,824	$ 94,779,831	$ 110,003,224	$ 127,127,543	$ 127,294,679	$ 134,008,209	$ 113,173,328
Ending Balance	**$ 175,122,569**	**$ 102,452,355**	**$ 129,219,220**	**$ 135,519,218**	**$ 158,633,727**	**$ 153,802,072**	**$ 172,670,899**
Balance Target	**$ 118,474,788**	**$ 89,161,684**	**$ 104,527,119**	**$ 104,516,400**	**$ 104,505,776**	**$ 90,164,767**	**$ 103,372,040**
Ending Balance (Excluding Interest)	$ 174,638,254	$ 101,953,618	$ 128,802,961	$ 135,043,545	$ 158,105,203	$ 153,240,698	$ 172,084,303
Interest Income	$ 484,316	$ 498,737	$ 416,260	$ 475,673	$ 528,524	$ 561,374	$ 586,595
Projected Flow of Funds - Rate Stabilization							
Rate Stabilization Funds Available							
Beginning Balance	$ 73,918,400	$ 77,608,400	$ 52,708,400	$ 54,608,400	$ 46,508,400	$ 48,408,400	$ 52,108,400
Deposit From (to) Operating Fund	3,690,000	(24,900,000)	1,900,000	(8,100,000)	1,900,000	3,700,000	900,000
Ending Balance	**$ 77,608,400**	**$ 52,708,400**	**$ 54,608,400**	**$ 46,508,400**	**$ 48,408,400**	**$ 52,108,400**	**$ 53,008,400**
Interest Income	$ 272,748	$ 234,570	$ 193,170	$ 182,010	$ 170,850	$ 180,930	$ 189,210
Projected Flow of Funds - Debt Service Reserve							
Debt Service Reserve Funds Available							
Beginning Balance	$ 84,087,759	$ 87,049,535	$ 87,049,535	$ 88,317,238	$ 88,317,238	$ 81,568,432	$ 88,594,710
Transfer From Bond Proceeds	2,961,776	-	1,267,703	-	-	7,026,278	3,400,608
Transfer From Residual Fund	-	-	-	-	-	-	-
Debt Service Reserve Fund Release	-	-	-	-	(6,748,806)	-	-
Ending Balance	**$ 87,049,535**	**$ 87,049,535**	**$ 88,317,238**	**$ 88,317,238**	**$ 81,568,432**	**$ 88,594,710**	**$ 91,995,318**
Interest Income	$ 308,047	$ 313,378	$ 315,660	$ 317,942	$ 305,794	$ 306,294	$ 325,062

Description	2015	2016	2017	2018	2019	2020	2021
Projected Flow of Funds - Revenue Fund							
Revenue Funds Available							
Beginning Balance	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000
Existing Service Charge Revenues	258,012,494	255,999,147	254,549,846	252,888,126	251,468,072	250,282,575	249,096,002
Additional Service Charge Revenues	-	-	12,727,492	25,921,033	36,865,219	48,170,385	64,279,104
Other Operating Revenue	14,340,862	12,119,487	11,834,435	4,725,519	11,145,450	4,027,320	3,669,460
Interest Earnings	140,519	94,568	135,409	121,893	148,619	149,640	149,635
Construction Fund Interest Earnings	-	-	-	-	-	-	-
Debt Service Reserve Interest Earnings (above SCOOP)	-	-	-	-	-	-	-
Rate Stabilization Fund Interest Earnings	272,748	234,570	193,170	182,010	170,850	180,930	189,210
Transfer from Rate Stabilization Fund	-	24,900,000	-	8,100,000	-	-	-
Total Funds Available	$ 300,766,623	$ 321,347,772	$ 307,440,352	$ 319,938,581	$ 327,798,211	$ 330,810,850	$ 345,383,412
Revenue Funds Used							
Total Operating Expense	$ 169,360,674	$ 181,563,456	$ 190,038,687	$ 195,259,172	$ 202,298,269	$ 208,055,387	$ 214,655,263
Total Senior Debt Service	81,066,822	90,111,937	69,981,353	76,678,803	70,762,867	67,441,187	75,408,147
Total Subordinate Debt Service	-	-	-	-	-	-	-
Capital Account Deposit	8,498,188	8,710,879	8,928,651	9,151,867	9,380,664	9,615,181	9,855,560
Transfer to Rate Stabilization Fund	3,690,000	-	1,900,000	-	1,900,000	3,700,000	900,000
Transfer to Residual Fund	10,150,939	12,961,500	8,591,662	10,848,739	15,456,412	13,999,096	16,564,442
Total Funds Utilized	$ 272,766,623	$ 293,347,772	$ 279,440,352	$ 291,938,581	$ 299,798,211	$ 302,810,850	$ 317,383,412
Ending Balance	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000	$ 28,000,000
Projected Flow of Funds - Residual Fund							
Operating Funds Available							
Beginning Balance	$ 9,876,454	$ 6,056,019	$ 6,139,432	$ 6,053,001	$ 6,123,618	$ 6,101,996	$ 6,123,058
Transfer from Revenue Fund	10,150,939	12,961,500	8,591,662	10,848,739	15,456,412	13,999,096	16,564,442
Debt Service Reserve Interest to fund Transfer to General Fund	308,047	313,378	315,660	317,942	305,794	306,294	325,062
Transfer to Debt Service Reserve	-	-	-	-	-	-	-
Transfer to Construction Fund	(14,000,000)	(12,900,000)	(8,700,000)	(10,800,000)	(15,500,000)	(14,000,000)	(16,600,000)
Transfer to General Fund	(308,047)	(313,378)	(315,660)	(317,942)	(305,794)	(306,294)	(325,062)
Ending Balance (prior to interest)	$ 6,027,392	$ 6,117,520	$ 6,031,094	$ 6,101,740	$ 6,080,030	$ 6,101,092	$ 6,087,500
Interest Income	28,627	21,912	21,907	21,879	21,967	21,966	21,979
Ending Balance	**$ 6,056,019**	**$ 6,139,432**	**$ 6,053,001**	**$ 6,123,618**	**$ 6,101,996**	**$ 6,123,058**	**$ 6,109,479**

Description	2015	2016	2017	2018	2019	2020	2021
Wastewater Utility Fund Balances							**Funds - 3**
Projected Flow of Funds - Construction Fund							
Construction Funds Available							
Beginning Balance	147,221,070	$ 251,384,627	$ 135,711,426	$ 150,177,017	$ 173,999,170	$ 197,026,066	$ 222,773,194
Transfer from Revenue Bond Proceeds	179,010,040	-	153,900,000	162,000,000	155,000,000	165,000,000	180,000,000
PENNVest Loan Proceeds	-	-	-	-	-	-	-
General Obligation Bonds	-	-	-	-	-	-	-
Non-City Sources	371,242	-	4,530,114	-	-	-	-
Grants							
Transfer from Residual Fund (Cash Financing)	22,700,000	18,900,000	21,700,000	25,100,000	30,800,000	34,300,000	37,600,000
Capital Account Deposit	12,198,812	12,504,121	12,816,724	13,137,142	13,465,571	13,802,210	14,147,265
Interest	716,201	695,521	513,675	582,469	666,645	754,281	858,531
Total Funds Available	$ 362,217,365	$ 283,484,269	$ 329,171,939	$ 350,996,627	$ 373,931,386	$ 410,882,556	$ 455,378,990
Construction Funds Used							
Capital Improvements	$ 105,822,786	$ 147,772,843	$ 175,005,979	$ 174,567,457	$ 174,580,321	$ 174,593,069	$ 191,802,280
Revenue Bond Issuance Expense	919,880	-	2,308,500	2,430,000	2,325,000	2,475,000	2,700,000
Revenue Bond Debt Service Reserve Requirement	4,090,072	-	1,680,443	-	-	11,041,294	5,829,614
State Revolving Fund Issuance Expense	-	-	-	-	-	-	-
General Obligation Bond Issuance Expense	-	-	-	-	-	-	-
Total Funds Utilized	$ 110,832,738	$ 147,772,843	$ 178,994,922	$ 176,997,457	$ 176,905,321	$ 188,109,363	$ 200,331,894
Ending Balance	**$ 251,384,627**	**$ 135,711,426**	**$ 150,177,017**	**$ 173,999,170**	**$ 197,026,066**	**$ 222,773,194**	**$ 255,047,097**
Balance Target	**$ 184,716,054**	**$ 145,838,316**	**$ 145,472,881**	**$ 145,483,600**	**$ 145,494,224**	**$ 159,835,233**	**$ 179,127,960**
Ending Balance (Excluding Interest)	$ 250,668,426	$ 135,015,905	$ 149,663,342	$ 173,416,701	$ 196,359,420	$ 222,018,913	$ 254,188,565
Interest Income	$ 716,201	$ 695,521	$ 513,675	$ 582,469	$ 666,645	$ 754,281	$ 858,531
Projected Flow of Funds - Rate Stabilization							
Rate Stabilization Funds Available							
Beginning Balance	$ 110,877,600	$ 128,597,600	$ 116,597,600	$ 95,397,600	$ 64,497,600	$ 74,897,600	$ 71,297,600
Deposit From (to) Operating Fund	17,720,000	(12,000,000)	(21,200,000)	(30,900,000)	10,400,000	(3,600,000)	(2,100,000)
Ending Balance	**$ 128,597,600**	**$ 116,597,600**	**$ 95,397,600**	**$ 64,497,600**	**$ 74,897,600**	**$ 71,297,600**	**$ 69,197,600**
Interest Income	$ 431,055	$ 441,351	$ 381,591	$ 287,811	$ 250,911	$ 263,151	$ 252,891
Projected Flow of Funds - Debt Service Reserve							
Debt Service Reserve Funds Available							
Beginning Balance	$ 127,979,902	$ 132,069,974	$ 132,069,974	$ 133,750,417	$ 133,750,417	$ 121,718,555	$ 132,759,849
Transfer From Bond Proceeds	4,090,072	-	1,680,443	-	-	11,041,294	5,829,614
Transfer From Residual Fund	-	-	-	-	-	-	-
Debt Service Reserve Funds Release	-	-	-	-	(12,031,861)	-	-
Ending Balance	**$ 132,069,974**	**$ 132,069,974**	**$ 133,750,417**	**$ 133,750,417**	**$ 121,718,555**	**$ 132,759,849**	**$ 138,589,463**
Interest Income	$ 468,090	$ 475,452	$ 478,477	$ 481,502	$ 459,844	$ 458,061	$ 488,429

Description	2015	2016	2017	2018	2019	2020	2021
Projected Flow of Funds - Revenue Fund							
Revenue Funds Available							
Beginning Balance	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000
Existing Service Charge Revenues	390,650,815	388,102,261	386,091,052	383,669,193	381,385,246	379,270,469	377,144,481
Additional Service Charge Revenues	-	-	22,007,190	44,984,829	66,874,357	89,683,788	115,295,300
Other Operating Revenue	12,726,856	10,754,117	10,458,809	1,407,442	13,014,195	503,881	12,884
Interest Earnings	233,750	185,274	174,360	163,881	249,015	230,778	240,037
Construction Fund Interest Earnings	-	-	-	-	-	-	-
Debt Service Reserve Interest Earnings (above SCOOP)	-	-	-	-	-	-	-
Rate Stabilization Fund Interest Earnings	431,055	441,351	381,591	287,811	250,911	263,151	252,891
Transfer from Rate Stabilization Fund	-	12,000,000	21,200,000	30,900,000	-	3,600,000	2,100,000
Total Funds Available	$ 446,042,475	$ 453,483,003	$ 482,313,003	$ 503,413,157	$ 503,773,725	$ 515,552,067	$ 537,045,593
Revenue Funds Used							
Total Operating Expense	$ 233,547,000	$ 249,510,406	$ 268,131,863	$ 276,197,469	$ 281,023,988	$ 288,226,777	$ 295,798,292
Total Senior Debt Service	124,203,539	130,601,416	137,733,148	146,982,696	126,156,975	137,252,130	147,540,256
Total Subordinate Debt Service	-	-	-	-	-	-	-
Capital Account Deposit	12,198,812	12,504,121	12,816,724	13,137,142	13,465,571	13,802,210	14,147,265
Transfer to Rate Stabilization Fund	17,720,000	-	-	-	10,400,000	-	-
Transfer to Residual Fund	16,373,125	18,867,059	21,631,268	25,095,850	30,727,192	34,270,951	37,559,780
Total Funds Utilized	$ 404,042,475	$ 411,483,003	$ 440,313,003	$ 461,413,157	$ 461,773,725	$ 473,552,067	$ 495,045,593
Ending Balance	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000	$ 42,000,000
Projected Flow of Funds - Residual Fund							
Operating Funds Available							
Beginning Balance	$ 15,398,546	$ 9,115,717	$ 9,115,534	$ 9,079,494	$ 9,108,022	$ 9,067,871	$ 9,071,414
Transfer from Revenue Fund	16,373,125	18,867,059	21,631,268	25,095,850	30,727,192	34,270,951	37,559,780
Interest Earnings on Debt Service Reserve for Transfer to General Fund	468,090	475,452	478,477	481,502	459,844	458,061	488,429
Transfer to Debt Service Reserve	-	-	-	-	-	-	-
Transfer to Construction Fund	(22,700,000)	(18,900,000)	(21,700,000)	(25,100,000)	(30,800,000)	(34,300,000)	(37,600,000)
Transfer to General Fund	(468,090)	(475,452)	(478,477)	(481,502)	(459,844)	(458,061)	(488,429)
Ending Balance (prior to interest)	$ 9,071,671	$ 9,082,777	$ 9,046,801	$ 9,075,343	$ 9,035,214	$ 9,038,822	$ 9,031,194
Interest Income	$ 44,046	$ 32,757	$ 32,692	$ 32,679	$ 32,658	$ 32,592	$ 32,585
Ending Balance	**$ 9,115,717**	**$ 9,115,534**	**$ 9,079,494**	**$ 9,108,022**	**$ 9,067,871**	**$ 9,071,414**	**$ 9,063,779**

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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

Water System Cash Flow

CF Data - 1

Revenue Fund									
Water Service - Existing Rates			$ 258,012	$ 255,999	$ 254,550	$ 252,888	$ 251,468	$ 250,283	$ 249,096
Total Service Revenue - Existing Rates			$ 258,012	$ 255,999	$ 254,550	$ 252,888	$ 251,468	$ 250,283	$ 249,096
Additional Service Revenue Required									
Fiscal Year	% Increase	Months Effective							
2015	0.00%	6	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2016	0.00%	12		-	-	-	-	-	-
2017	5.00%	12			12,727	12,644	12,573	12,514	12,455
2018	5.00%	12				13,277	13,202	13,140	13,078
2019	4.00%	12					11,090	11,037	10,985
2020	4.00%	12						11,479	11,425
2021	5.50%	12							16,337
Total Additional Service Revenue Required			$ -	$ -	$ 12,727	$ 25,921	$ 36,865	$ 48,170	$ 64,279
Other Income									
Other Operating Revenue			$ 14,341	$ 12,119	$ 11,834	$ 4,726	$ 11,145	$ 4,027	$ 3,669
Debt Reserve Fund Interest Income			-	-	-	-	-	-	-
Operating Fund Interest Income			141	95	135	122	149	150	150
Rate Stabilization Interest Income			273	235	193	182	171	181	189
Project Revenues			$ 272,767	$ 268,448	$ 279,440	$ 283,839	$ 299,798	$ 302,811	$ 317,383
Operating Expense									
Water Operations			$ (96,801)	$ (103,585)	$ (108,477)	$ (110,702)	$ (114,196)	$ (117,357)	$ (120,443)
Direct Interdepartmental Charges			(62,112)	(67,525)	(70,610)	(72,880)	(75,794)	(77,701)	(80,171)
Water Treatment Plant Sludge			(10,448)	(10,453)	(10,952)	(11,678)	(12,309)	(12,998)	(14,041)
Total Operating Expense			$ (169,361)	$ (181,563)	$ (190,039)	$ (195,259)	$ (202,298)	$ (208,055)	$ (214,655)

Net Revenues							
Transfer from/(to) Rate Stabilization Fund	$ (3,690)	$ 24,900	$ (1,900)	$ 8,100	$ (1,900)	$ (3,700)	$ (900)
Net Revenues	$ 99,716	$ 111,784	$ 87,502	$ 96,679	$ 95,600	$ 91,055	$ 101,828
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	$ (75,345)	$ (80,287)	$ (58,467)	$ (58,726)	$ (43,435)	$ (31,824)	$ (32,765)
Pennvest Parity Bonds	(5,722)	(5,722)	(5,722)	(6,065)	(6,091)	(6,016)	(6,016)
Projected Future Bonds	-	(4,103)	(5,792)	(11,887)	(21,237)	(29,601)	(36,627)
Total Senior Debt Service	$ (81,067)	$ (90,112)	$ (69,981)	$ (76,679)	$ (70,763)	$ (67,441)	$ (75,408)
Subordinate Debt Service							
Outstanding General Obligation Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pennvest Subordinate Bonds							
Projected Future Bonds	-	-	-	-	-	-	-
Total Subordinate Debt Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Debt Service on Bonds	(81,067)	(90,112)	(69,981)	(76,679)	(70,763)	(67,441)	(75,408)
Capital Account Deposit	$ (8,498)	$ (8,711)	$ (8,929)	$ (9,152)	$ (9,381)	$ (9,615)	$ (9,856)
End of Year Balance (Transfer to Residual Fund)	$ 10,151	$ 12,962	$ 8,592	$ 10,849	$ 15,456	$ 13,999	$ 16,564

Residual Fund							
Beginning Balance	$ 9,876	$ 6,056	$ 6,139	$ 6,053	$ 6,124	$ 6,102	$ 6,123
Plus:							
End of Year Revenue Fund Balance	10,151	12,962	8,592	10,849	15,456	13,999	16,564
Deposit for Transfer to City General Fund	308	313	316	318	306	306	325
Interest Income	29	22	22	22	22	22	22
Less:							
Transfer to Construction Fund	(14,000)	(12,900)	(8,700)	(10,800)	(15,500)	(14,000)	(16,600)
Transfer to City General Fund	(308)	(313)	(316)	(318)	(306)	(306)	(325)
Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
Ending Balance	$ 6,056	$ 6,139	$ 6,053	$ 6,124	$ 6,102	$ 6,123	$ 6,109
Rate Stabilization Fund							
Beginning Balance	$ 73,918	$ 77,608	$ 52,708	$ 54,608	$ 46,508	$ 48,408	$ 52,108
Transfer to/from Revenue Fund	3,690	(24,900)	1,900	(8,100)	1,900	3,700	900
Ending Balance	$ 77,608	$ 52,708	$ 54,608	$ 46,508	$ 48,408	$ 52,108	$ 53,008
Debt Service Coverage							
Net Revenues for Coverage	$ 99,716	$ 111,784	$ 87,502	$ 96,679	$ 95,600	$ 91,055	$ 101,828
Total Senior Debt Service Coverage	**1.23**	**1.24**	**1.25**	**1.26**	**1.35**	**1.35**	**1.35**
Total Senior Debt Service Coverage - Current Revenue	**1.23**	**0.96**	**1.25**	**1.15**	**1.35**	**1.35**	**1.35**
Total Debt Service Coverage	**1.11**	**1.13**	**1.11**	**1.13**	**1.19**	**1.18**	**1.19**

Wastewater System Cash Flow

CF Data - 2

Revenue Fund									
Wastewater Service - Existing Rates			$ 390,651	$ 388,102	$ 386,091	$ 383,669	$ 381,385	$ 379,270	$ 377,144
Total Service Revenue - Existing Rates			$ 390,651	$ 388,102	$ 386,091	$ 383,669	$ 381,385	$ 379,270	$ 377,144
Additional Service Revenue Required									
Fiscal Year	% Increase	Months Effective							
2015	0.00%	6	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2016	0.00%	12		-	-	-	-	-	-
2017	5.70%	12			22,007	21,869	21,739	21,618	21,497
2018	5.70%	12				23,116	22,978	22,851	22,723
2019	5.20%	12					22,157	22,034	21,911
2020	5.20%	12						23,180	23,050
2021	5.60%	12							26,114
Total Additional Service Revenue Required			$ -	$ -	$ 22,007	$ 44,985	$ 66,874	$ 89,684	$ 115,295
Other Income									
Other Operating Revenue			$ 12,727	$ 10,754	$ 10,459	$ 1,407	$ 13,014	$ 504	$ 13
Debt Reserve Fund Interest Income			-	-	-	-	-	-	-
Operating Fund Interest Income			234	185	174	164	249	231	240
Rate Stabilization Interest Income			431	441	382	288	251	263	253
Project Revenues			$ 404,042	$ 399,483	$ 419,113	$ 430,513	$ 461,774	$ 469,952	$ 492,946
Operating Expense									
Wastewater Operations			$ (154,712)	$ (163,056)	(177,263)	$ (182,681)	$ (183,963)	$ (189,058)	$ (194,081)
Direct Interdepartmental Charges			(89,282)	(96,908)	(101,820)	(105,194)	(109,370)	(112,166)	(115,758)
Water Treatment Plant Sludge			10,448	10,453	10,952	11,678	12,309	12,998	14,041
Total Operating Expense			$ (233,547)	$ (249,510)	$ (268,132)	$ (276,197)	$ (281,024)	$ (288,227)	$ (295,798)

Net Revenues							
Transfer from Rate Stabilization Fund	$ (17,720)	$ 12,000	$ 21,200	$ 30,900	$ (10,400)	$ 3,600	$ 2,100
Net Revenues after Operations	$ 152,775	$ 161,973	$ 172,181	$ 185,216	$ 170,350	$ 185,325	$ 199,247
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	$ (117,582)	$ (118,314)	$ (123,113)	$ (124,043)	$ (89,839)	$ (90,533)	$ (89,780)
Pennvest Parity Bonds	(6,621)	(6,621)	(6,621)	(6,862)	(7,029)	(7,058)	(7,058)
Projected Future Bonds	-	(5,666)	(7,999)	(16,079)	(29,288)	(39,661)	(50,702)
Total Senior Debt Service	$ (124,204)	$ (130,601)	$ (137,733)	$ (146,983)	$ (126,157)	$ (137,252)	$ (147,540)
Subordinate Debt Service							
Outstanding General Obligation Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pennvest Subordinate Bonds							
Projected Future Bonds	-	-	-	-	-	-	-
Total Subordinate Debt Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Debt Service on Bonds	(124,204)	(130,601)	(137,733)	(146,983)	(126,157)	(137,252)	(147,540)
Capital Account Deposit	$ (12,199)	$ (12,504)	$ (12,817)	$ (13,137)	$ (13,466)	$ (13,802)	$ (14,147)
End of Year Balance (Transfer to Residual Fund)	$ 16,373	$ 18,867	$ 21,631	$ 25,096	$ 30,727	$ 34,271	$ 37,560

Residual Fund							
Beginning Balance	$ 15,399	$ 9,116	$ 9,116	$ 9,079	$ 9,108	$ 9,068	$ 9,071
Plus:							
End of Year Revenue Fund Balance	16,373	18,867	21,631	25,096	30,727	34,271	37,560
Deposit for Transfer to City General Fund	468	475	478	482	460	458	488
Interest Income	44	33	33	33	33	33	33
Less:							
Transfer to Construction Fund	(22,700)	(18,900)	(21,700)	(25,100)	(30,800)	(34,300)	(37,600)
Transfer to City General Fund	(468)	(475)	(478)	(482)	(460)	(458)	(488)
Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
Ending Balance	$ 9,116	$ 9,116	$ 9,079	$ 9,108	$ 9,068	$ 9,071	$ 9,064
Rate Stabilization Fund							
Beginning Balance	$ 110,878	$ 128,598	$ 116,598	$ 95,398	$ 64,498	$ 74,898	$ 71,298
Transfer to/from Revenue Fund	17,720	(12,000)	(21,200)	(30,900)	10,400	(3,600)	(2,100)
Ending Balance	$ 128,598	$ 116,598	$ 95,398	$ 64,498	$ 74,898	$ 71,298	$ 69,198
Debt Service Coverage							
Net Revenues for Coverage	$ 152,775	$ 161,973	$ 172,181	$ 185,216	$ 170,350	$ 185,325	$ 199,247
Total Senior Debt Service Coverage	**1.23**	**1.24**	**1.25**	**1.26**	**1.35**	**1.35**	**1.35**
Total Senior Debt Service Coverage - Current Revenue	**1.23**	**1.14**	**1.09**	**1.04**	**1.35**	**1.32**	**1.33**
Total Debt Service Coverage	**1.12**	**1.13**	**1.14**	**1.16**	**1.22**	**1.23**	**1.23**

Combined System Cash Flow

CF Data - 3

Revenue Fund									
Water Service - Existing Rates			$ 258,012	$ 255,999	$ 254,550	$ 252,888	$ 251,468	$ 250,283	$ 249,096
Wastewater Service - Existing Rates			390,651	388,102	386,091	383,669	381,385	379,270	377,144
Total Service Revenue - Existing Rates			$ 648,663	$ 644,101	$ 640,641	$ 636,557	$ 632,853	$ 629,553	$ 626,240
Additional Service Revenue Required									
Fiscal Year	% Increase	Months Effective							
2015	0.00%	6	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2016	0.00%	12		-	-	-	-	-	-
2017	5.42%	12			34,735	34,514	34,312	34,133	33,952
2018	5.42%	12				36,392	36,180	35,991	35,800
2019	4.73%	12					33,247	33,072	32,896
2020	4.73%	12						34,659	34,475
2021	5.56%	12							42,451
Total Additional Service Revenue Required			$ -	$ -	$ 34,735	$ 70,906	$ 103,740	$ 137,854	$ 179,574
Other Income									
Other Operating Revenue			$ 27,068	$ 22,874	$ 22,293	$ 6,133	$ 24,160	$ 4,531	$ 3,682
Debt Reserve Fund Interest Income			-	-	-	-	-	-	-
Operating Fund Interest Income			374	280	310	286	398	380	390
Rate Stabilization Interest Income			704	676	575	470	422	444	442
Project Revenues			$ 676,809	$ 667,931	$ 698,553	$ 714,352	$ 761,572	$ 772,763	$ 810,329
Operating Expense									
Water & Wastewater Operations			$ (251,514)	$ (266,640)	$ (285,741)	$ (293,383)	$ (298,158)	$ (306,415)	$ (314,524)
Direct Interdepartmental Charges			(151,394)	(164,433)	(172,430)	(178,074)	(185,164)	(189,867)	(195,930)
Water Treatment Plant Sludge			-	-	-	-	-	-	-
Total Operating Expense			$ (402,908)	$ (431,074)	$ (458,171)	$ (471,457)	$ (483,322)	$ (496,282)	$ (510,454)

Net Revenues							
Transfer from Rate Stabilization Fund	(21,410)	36,900	19,300	39,000	(12,300)	(100)	1,200
Net Revenues	$ 252,491	$ 273,757	$ 259,683	$ 281,895	$ 265,950	$ 276,381	$ 301,075
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Revenue Bonds	$ (192,927)	$ (198,602)	$ (181,580)	$ (182,769)	$ (133,274)	$ (122,358)	$ (122,545)
Pennvest Parity Bonds	(12,343)	(12,343)	(12,343)	(12,927)	(13,120)	(13,074)	(13,074)
Projected Future Revenue Bonds	-	(9,769)	(13,791)	(27,966)	(50,525)	(69,262)	(87,329)
Total Senior Debt Service	$ (205,270)	$ (220,713)	$ (207,715)	$ (223,661)	$ (196,920)	$ (204,693)	$ (222,948)
Subordinate Debt Service							
Outstanding General Obligation Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pennvest Subordinate Bonds	-	-	-	-	-	-	-
Projected Future Bonds	-	-	-	-	-	-	-
Total Subordinate Debt Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Debt Service on Bonds	$ (205,270)	$ (220,713)	$ (207,715)	$ (223,661)	$ (196,920)	$ (204,693)	$ (222,948)
Capital Account Deposit	$ (20,697)	$ (21,215)	$ (21,745)	$ (22,289)	$ (22,846)	$ (23,417)	$ (24,003)
End of Year Balance (Transfer to Residual Fund)	$ 26,524	$ 31,829	$ 30,223	$ 35,945	$ 46,184	$ 48,270	$ 54,124

Residual Fund							
Beginning Balance	$ 25,275	$ 15,172	$ 15,255	$ 15,132	$ 15,232	$ 15,170	$ 15,194
Plus:							
End of Year Revenue Fund Balance	26,524	31,829	30,223	35,945	46,184	48,270	54,124
Deposit for Transfer to City General Fund	776	789	794	799	766	764	813
Interest Income	73	55	55	55	55	55	55
Less:							
Transfer to Construction Fund	(36,700)	(31,800)	(30,400)	(35,900)	(46,300)	(48,300)	(54,200)
Transfer to City General Fund	(776)	(789)	(794)	(799)	(766)	(764)	(813)
Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
Ending Balance	$ 15,172	$ 15,255	$ 15,132	$ 15,232	$ 15,170	$ 15,194	$ 15,173
Rate Stabilization Fund							
Beginning Balance	$ 184,796	$ 206,206	$ 169,306	$ 150,006	$ 111,006	$ 123,306	$ 123,406
Transfer to/from Revenue Fund	21,410	(36,900)	(19,300)	(39,000)	12,300	100	(1,200)
Ending Balance	$ 206,206	$ 169,306	$ 150,006	$ 111,006	$ 123,306	$ 123,406	$ 122,206
Debt Service Coverage							
Net Revenues for Coverage	$ 252,491	$ 273,757	$ 259,683	$ 281,895	$ 265,950	$ 276,381	$ 301,075
Total Senior Debt Service Coverage	**1.23**	**1.24**	**1.25**	**1.26**	**1.35**	**1.35**	**1.35**
Total Senior Debt Service Coverage - Current Revenue	**1.23**	**1.07**	**1.15**	**1.08**	**1.35**	**1.35**	**1.34**
Total Debt Service Coverage	**1.12**	**1.13**	**1.13**	**1.15**	**1.21**	**1.21**	**1.22**

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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	

Water System Cost of Service

Cost of Service - 1

	2015	2016	2017	2018	2019	2020	2021
Operating Expenses							
Operating Expense	$ 96,801	$ 103,585	$ 108,477	$ 110,702	$ 114,196	$ 117,357	$ 120,443
Direct Interdepartmental Charges	62,112	67,525	70,610	72,880	75,794	77,701	80,171
Water Treatment Plant Sludge	10,448	10,453	10,952	11,678	12,309	12,998	14,041
Subtotal	$ 169,361	$ 181,563	$ 190,039	$ 195,259	$ 202,298	$ 208,055	$ 214,655
Residual Fund Transfer	6,640	8,393	6,071	7,536	11,071	10,216	11,855
Rate Stabilization Fund Transfer	2,414	(16,124)	1,343	(5,627)	1,361	2,700	644
Total	$ 178,415	$ 173,832	$ 197,453	$ 197,168	$ 214,730	$ 220,971	$ 227,154
Other Income							
Other Operating Revenue	$ (14,341)	$ (12,119)	$ (11,834)	$ (4,726)	$ (11,145)	$ (4,027)	$ (3,669)
Interest	$ (270)	$ (213)	$ (232)	$ (211)	$ (229)	$ (241)	$ (243)
Net Revenue Requirement - Operating Expense	$ 163,804	$ 161,500	$ 185,386	$ 192,232	$ 203,356	$ 216,703	$ 223,242

	2015	2016	2017	2018	2019	2020	2021
Capital Expenses							
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	$ 75,345	$ 80,287	$ 58,467	$ 58,726	$ 43,435	$ 31,824	$ 32,765
Pennvest Parity Bonds	5,722	5,722	5,722	6,065	6,091	6,016	6,016
Projected Future Bonds	-	4,103	5,792	11,887	21,237	29,601	36,627
Subordinate Debt Service							
Outstanding General Obligation Bonds	-	-	-	-	-	-	-
Pennvest Subordinate Bonds							
Projected Future Bonds	-	-	-	-	-	-	-
Capital Account Deposit	8,498	8,711	8,929	9,152	9,381	9,615	9,856
Subtotal	$ 89,565	$ 98,823	$ 78,910	$ 85,831	$ 80,144	$ 77,056	$ 85,264
Residual Fund Transfer	3,511	4,569	2,521	3,313	4,385	3,783	4,709
Rate Stabilization Fund Transfer	1,276	(8,776)	557	(2,473)	539	1,000	256
Total	$ 94,352	$ 94,615	$ 81,988	$ 86,670	$ 85,068	$ 81,839	$ 90,229
Other Income							
Other Operating Revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest	(143)	(116)	(97)	(93)	(90)	(90)	(96)
Net Revenue Requirement - Capital Expense	$ 94,209	$ 94,499	$ 81,891	$ 86,578	$ 84,977	$ 81,750	$ 90,133
Total Net Revenue Requirement	$ 258,012	$ 255,999	$ 267,277	$ 278,809	$ 288,333	$ 298,453	$ 313,375
Revenue CHECK	$ 258,012	$ 255,999	$ 267,277	$ 278,809	$ 288,333	$ 298,453	$ 313,375

Wastewater System Cost of Service

Cost of Service - 2

	2015	2016	2017	2018	2019	2020	2021
Operating Expenses							
Operating Expense	$ 154,712	$ 163,056	$ 177,263	$ 182,681	$ 183,963	$ 189,058	$ 194,081
Direct Interdepartmental Charges	89,282	96,908	101,820	105,194	109,370	112,166	115,758
Water Treatment Plant Sludge	(6,971)	(7,023)	(7,377)	(7,902)	(8,655)	(9,121)	(9,838)
Total Operating Expense	$ 237,024	$ 252,940	$ 271,706	$ 279,973	$ 284,678	$ 292,104	$ 300,001
Residual Fund Transfer	10,490	12,155	14,038	16,103	20,795	22,789	24,630
Rate Stabilization Fund Transfer	11,353	(7,731)	(13,758)	(19,828)	7,038	(2,394)	(1,377)
Total	$ 258,867	$ 257,364	$ 271,986	$ 276,248	$ 312,511	$ 312,499	$ 323,254
Other Income							
Other Operating Revenue	$ (12,727)	$ (10,754)	$ (10,459)	$ (1,407)	$ (13,014)	$ (504)	$ (13)
Interest	$ (439)	$ (406)	$ (361)	$ (288)	$ (348)	$ (336)	$ (331)
Net Revenue Requirement - Operating Expense	$ 245,701	$ 246,204	$ 261,167	$ 274,553	$ 299,148	$ 311,659	$ 322,910

	2015	2016	2017	2018	2019	2020	2021
Capital Expenses							
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	$ 117,582	$ 118,314	$ 123,113	$ 124,043	$ 89,839	$ 90,533	$ 89,780
Pennvest Parity Bonds	6,621	6,621	6,621	6,862	7,029	7,058	7,058
Projected Future Bonds	-	5,666	7,999	16,079	29,288	39,661	50,702
Subordinate Debt Service							
Outstanding General Obligation Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pennvest Subordinate Bonds							
Projected Future Bonds	-	-	-	-	-	-	-
Capital Account Deposit	$ 12,199	$ 12,504	$ 12,817	$ 13,137	$ 13,466	$ 13,802	$ 14,147
Water Treatment Plant Sludge - Capital Component	$ (3,477)	$ (3,430)	$ (3,575)	$ (3,776)	$ (3,654)	$ (3,877)	$ (4,203)
Subtotal	$ 132,925	$ 139,676	$ 146,975	$ 156,344	$ 135,969	$ 147,177	$ 157,485
Residual Fund Transfer	5,883	6,712	7,593	8,993	9,932	11,482	12,930
Rate Stabilization Fund Transfer	6,367	(4,269)	(7,442)	(11,072)	3,362	(1,206)	(723)
Total	$ 145,176	$ 142,119	$ 147,127	$ 154,265	$ 149,263	$ 157,453	$ 169,691
Other Income							
Other Operating Revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest	(226)	(221)	(195)	(164)	(152)	(158)	(162)
Net Revenue Requirement - Capital Expense	$ 144,950	$ 141,898	$ 146,932	$ 154,101	$ 149,111	$ 157,295	$ 169,530
Total Net Revenue Requirement	$ 390,651	$ 388,102	$ 408,098	$ 428,654	$ 448,260	$ 468,954	$ 492,440
Revenue CHECK	$ 390,651	$ 388,102	$ 408,098	$ 428,654	$ 448,260	$ 468,954	$ 492,440

Combined System Cost of Service

Cost of Service - 3

	2015	2016	2017	2018	2019	2020	2021
Operating Expenses							
Operating Expense	$ 251,514	$ 266,640	$ 285,741	$ 293,383	$ 298,158	$ 306,415	$ 314,524
Direct Interdepartmental Charges	$ 151,394	$ 164,433	$ 172,430	$ 178,074	$ 185,164	$ 189,867	$ 195,930
Water Treatment Plant Sludge	$ 3,477	$ 3,430	$ 3,575	$ 3,776	$ 3,654	$ 3,877	$ 4,203
Subtotal	$ 406,385	$ 434,504	$ 461,745	$ 475,232	$ 486,976	$ 500,159	$ 514,656
Residual Fund Transfer	17,130	20,548	20,109	23,639	31,866	33,005	36,485
Rate Stabilization Fund Transfer	13,767	(23,855)	(12,415)	(25,455)	8,399	306	(733)
Total	$ 437,282	$ 431,197	$ 469,439	$ 473,416	$ 527,241	$ 533,470	$ 550,408
Other Income							
Other Operating Revenue	$ (27,068)	$ (22,874)	$ (22,293)	$ (6,133)	$ (24,160)	$ (4,531)	$ (3,682)
Interest	$ (709)	$ (619)	$ (593)	$ (499)	$ (577)	$ (577)	$ (574)
Net Revenue Requirement - Operating Expense	$ 409,505	$ 407,704	$ 446,553	$ 466,784	$ 502,504	$ 528,362	$ 546,152

	2015	2016	2017	2018	2019	2020	2021
Capital Expenses							
Debt Service							
Senior Debt Service							
Revenue Bonds							
Outstanding Bonds	$ 192,927	$ 198,602	$ 181,580	$ 182,769	$ 133,274	$ 122,358	$ 122,545
Pennvest Parity Bonds	12,343	12,343	12,343	12,927	13,120	13,074	13,074
Projected Future Bonds	-	9,769	13,791	27,966	50,525	69,262	87,329
Subordinate Debt Service							
Outstanding General Obligation Bonds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pennvest Subordinate Bonds							
Projected Future Bonds	-	-	-	-	-	-	-
Capital Account Deposit	$ 20,697	$ 21,215	$ 21,745	$ 22,289	$ 22,846	$ 23,417	$ 24,003
Water Treatment Plant Sludge - Capital Component	$ (3,477)	$ (3,430)	$ (3,575)	$ (3,776)	$ (3,654)	$ (3,877)	$ (4,203)
Subtotal	$ 222,490	$ 238,498	$ 225,885	$ 242,175	$ 216,112	$ 224,233	$ 242,748
Residual Fund Transfer	9,394	11,281	10,114	12,306	14,318	15,265	17,639
Rate Stabilization Fund Transfer	7,643	(13,045)	(6,885)	(13,545)	3,901	(206)	(467)
Total	$ 239,527	$ 236,734	$ 229,114	$ 240,936	$ 234,331	$ 239,292	$ 259,921
Other Income							
Other Operating Revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest	(369)	(337)	(292)	(257)	(242)	(247)	(258)
Net Revenue Requirement - Capital Expense	$ 239,158	$ 236,397	$ 228,823	$ 240,679	$ 234,089	$ 239,045	$ 259,663
Total Net Revenue Requirement	$ 648,663	$ 644,101	$ 675,376	$ 707,463	$ 736,593	$ 767,407	$ 805,815
Revenue CHECK	$ 648,663	$ 644,101	$ 675,376	$ 707,463	$ 736,593	$ 767,407	$ 805,815

PUBLIC HEARING ON
PROPOSED WATER AND WASTEWATER RATES
2015

WATER DEPARTMENT
PHILADELPHIA, PENNSYLVANIA

BLACK & VEATCH CALCULATIONS
SUPPORTING EXHIBITS BV-E1, BV-E2 AND
BV-E3

SCOS15_2017

DECEMBER 2015

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SCOS15_17.XLS

INDEX

INDEX TO BLACK & VEATCH CALCULATIONS SUPPORTING DECEMBER 2015 EXHIBITS BV-E1, BV-E2, AND BV-E3 FOR THE PUBLIC HEARING ON PROPOSED WATER AND WASTEWATER RATES 2015

The calculations supporting the December 2015 exhibits BV-E1, BV-E2 and BV-E3 are developed in three computer model workbook files: FINPLAN15.XLS, WCOS15_2017.XLS, and SCOS15_2017.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., Finplan2015.XLS) and the worksheet (e.g., Customer) that is printed.

The Finplan2015.XLS workbook file develops projected revenue requirements and cash flows for each utility and the combined utilities. The WCOS15_2017.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 SCOS15_2017.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:

- Exhibits Tables Reference Index – These pages provide calculation page references for the tables in Exhibits 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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TABLE SW-14	STORMWATER: ESTIMATE OF GROSS AREA (GA) AND IMPERVIOUS AREA (IA) UNIT COSTS ADJUSTED FOR CUSTOMER ASSISTANCE PROGRAM (CAP)		

Exhibit Table	Title	Source File	Source Page
TABLE SW-15	STORMWATER: ESTIMATE OF CUSTOMER CLASS GA AND IA COST OF SERVICE ADJUSTED FOR CUSTOMER ASSISTANCE PROGRAM (CAP)		
TABLE SW-16	STORMWATER: GA AND IA COST OF SERVICE RATES PRIOR TO DISCOUNT AND LAG FACTOR ADJUSTMENTS		
TABLE SW-17	STORMWATER: STORMWATER BILLING and COLLECTION UNIT COSTS		
TABLE SW-18	STORMWATER: STORMWATER ADJUSTED COSTS OF SERVICE (AFTER DISCOUNTS)		
TABLE SW-19	STORMWATER: STORMWATER FINAL COST OF SERVICE RATES	SCOS	LagRate-14 (Lag Factor Adjustment)
TABLE SW-19A	STORMWATER: PROPOSED RATES FOR RESIDENTIAL SERVICES		
TABLE SW-19B	STORMWATER: PROPOSED RATES FOR NON-RESIDENTIAL SERVICES		

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	Trtmt Plant Flows and Strengths	Units-7	
CCSF	Customer Class Sanitary Flows	Units-8	
RTLUNT	Retail Sewer Units	Units-9	
BILLTAB	FY 2014 Bill Distribution & TY Number of Bills	Units-10	
TYBILLS	FY 2017 Test Year Sewer Bills	Units-11	
TYMTRS	FY 2017 Test Year Equiv. Sewer Meters	Units-12	
TYUOS	FY 2017 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 Limits	Units-16	

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

Range	Description	Page Number	Table
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	

Fixed Asset Listing as of date 6/30/2015

Range	Description	Page Number	Table
PlantInd	Index	Plant-1	
PLTFUNC	Plant Functions	Plant-2	
NEPA1	NE Plant Assets (Non-WPAP) as of 6/30/2015	Plant-3	
NEPA2	'NE Plant Assets (WPAP) as of 6/30/2015	Plant-4	
SWPA1	SW Plant Assets (Non-WPAP) as of 6/30/2015	Plant-5	
SWPA2	SW Plant Assets (WPAP) as of 6/30/2015	Plant-6	
SEPA1	SE Plant Assets (Non-WPAP) as of 6/30/2015	Plant-7	
SEPA2	SE Plant Assets (WPAP) as of 6/30/2015	Plant-8	
SPLTFNC	All Plants - Assets by Plant Function as of 6/30/2015	Plant-9	
SLOCID	All Locations - Total Assets by Location ID as of 6/30/2015	Plant-10	
XXXXX	PAGE NOT IN USE	Plant-11	
SFAL	Summary of Fixed Asset Listing Control Totals as of 6/30/2015	Plant-12	

Fixed Asset Listing as of date 6/30/2015

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 - Pa	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 - Pa	Spltallo-19	
SWReAllo8	SW Non-WPAP Sludge Disposal Facilities Allocated To NE and SE I	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	Whlsl 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 Southhampton 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	Sprngfield (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	

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	Operations Division O&M - Class 100	Somallo-5	
CL100B	Operations Division O&M - Class 100	Somallo-6	
CL200A	Operations Division O&M - Class 200	Somallo-7	
CL200B	Operations Division O&M - Class 200	Somallo-8	
CL200LEA	Operations Division O&M - Class 200 L. Encumbrances	Somallo-9	
CL200LEB	Operations Division O&M - Class 200 L. Encumbrances	Somallo-10	
CL300A	Operations Division O&M - Class 300	Somallo-11	
CL300B	Operations Division O&M - Class 300	Somallo-12	
CL300LEA	Operations Division O&M - Class 300 L. Encumbrances	Somallo-13	
CL300LEB	Operations Division O&M - Class 300 L. Encumbrances	Somallo-14	
CL400A	Operations Division O&M - Class 400	Somallo-15	
CL400B	Operations Division O&M - Class 400	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-21	
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	TABLE 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	
RTLOM	Operation And Maintenance Expense Allocated To Retail	Somallo-54	TABLE WW - 10

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
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	
RTLCCALLO	Allocation Of Capital Costs To Retail Service	Retcos-15	
RTLCOS	Retail Cost Of Service	Retcos-16	
RTLCOSSUM	Retail Cost Of Service Summary	Retcos-17	
XXXXX	PAGE NOT IN USE	Retcos-18	
RTLCOLL	Allocation Of O&M Expense To Retail Service - Collection System	Retcos-19	
GSCOS	General Service Excluding Senior Citizens Cost Of Service	Retcos-20	
RTLIICST	Estimated Infiltration/Inflow Costs for Inside City Retail Service	Retcos-21	
RTLSINVEST	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.

Future Years Beyond Projection Period

Update Table	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Test Year
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
O&M Portion of Line Below	6,970,589	7,023,280	7,377,127	7,902,286	8,654,994	9,120,613	9,838,049	10,444,608	10,758,917	11,159,026	11,664,982	12,177,614	12,719,995	13,226,234	13,808,776	7,377,127
Water Treatment Plant Sludge	10,447,550	10,453,302	10,951,693	11,677,838	12,308,651	12,997,941	14,040,883	14,889,773	15,533,749	15,779,904	16,735,602	17,792,065	18,868,570	19,622,335	21,022,731	
SW Allocation	40.7%	40.5%	40.9%	40.8%	40.3%	40.3%	40.4%	40.4%	40.6%	40.4%	40.5%	40.8%	40.9%	40.9%	41.2%	40.9%

Table last updated: Sunday, December 06, 2015 - 6:22:47 AM

Previous Allocations

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Prev O&M Iteration's Values	6,970,589	7,023,280	7,377,127	7,902,286	8,654,994	9,120,613	9,838,049	10,444,608	10,758,917	11,159,026	11,664,982	12,177,614	12,719,995	13,226,234	13,808,776
Previous Iteration's Values	10,447,550	10,453,302	10,951,693	11,677,838	12,308,651	12,997,941	14,040,883	14,889,773	15,533,750	15,779,904	16,735,602	17,792,065	18,868,570	19,622,462	21,022,731
SW Allocation	40.7%	40.5%	40.9%	40.8%	40.3%	40.3%	40.4%	40.4%	40.6%	40.4%	40.5%	40.8%	40.9%	40.9%	41.2%

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	
ICRTLCOS	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	
RTLADJCOS	Adjusted Retail Unit Costs	Ratedsn-5	Tbls-A46
DSCUSTCOS	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	Tbls-A48
TYCOS	Test Year COS Adjusted to Recover Discounted COS from All Classes	Ratedsn-9	

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

Range	Description	Page Number	Table
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	

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

Range	Description	Page Number	Table
SERVIndex	Index	Servchg-1	
SRVCHG	Service Charge Design	Servchg-2	
ADJRTLCOS	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	

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	
PBILLERates	Projected Gross Billings Under Existing Rates	LagRate-4	
BILLMETER	Historical Bills by Meter Size & Billed Volume	LagRate-5	
BILLMETER	FY 2017 Bills by Meter Size & Billed Volume	LagRate-6	
EBILLS	Historical Billings Under Existing Rates	LagRate-7	
BILLTABFTR	FY 2017 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	
PBILLPRates	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	
WHLCHRGS	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	Cntrct Serv. Proposed Rates Receipts Analysis - Part 1	LagRate-19	
CTRCTANAL	Cntrct Serv. Proposed Rates Receipts Analysis - Part 2	LagRate-19a	
COSCLASS	COS & Adjusted COS by Class	LagRate-20	
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	
PHASEDRAT	Phased Rates for Stormwater Transition	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	
PROPRCPTS1	Page 1 of FY 2017 Proposed Receipts Calcs	LagRate-37	
PROPRCPTS2	Page 2 of FY 2017 Proposed Receipts Calcs	LagRate-38	
SWCPEM	Stormwater Cost Per 5/8 Inch Equivalent Meter	LagRate-39	
SSERVCHGS	2017 Components of Sewer Service Charges	LagRate-40	
SSERVCHGS	2018 Components of Sewer Service Charges	LagRate-41	
SSERVCHGS	2019 Components of Sewer Service Charges	LagRate-42	
SSERVCHGS	Summary of Components of Regular Sewer Service Charges	LagRate-43	
SSERVCHGS	Summary of Components of Discount Sewer Service Charges	LagRate-44	

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

Range	Page Number	Description
	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 2017

SCOS15_17.XLS

UNITS

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	Trtmt Plant Flows and Strengths	Units-7	
CCSF	Customer Class Sanitary Flows	Units-8	
RTLUNT	Retail Sewer Units	Units-9	
BILLTAB	FY 2014 Bill Distribution & TY Number of Bills	Units-10	
TYBILLS	FY 2017 Test Year Sewer Bills	Units-11	
TYMTRS	FY 2017 Test Year Equiv. Sewer Meters	Units-12	
TYUOS	FY 2017 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 Limits	Units-16	

TABLE 29

OUTSIDE CITY CONTRACT SERVICE UNITS OF WASTEWATER SERVICE

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(12)	(13)	(14)	(15)	
				Northeast WPC Plant							Southwest WPC Plant					Southeast WPC Plant		
Line No.		Units		Abington	Bensalem	Bucks County	Cheltenham	Lower Moreland	Lower Southhampton	Total Northeast	DELCORA	Lower Merion	Springfield (Excluding Wyndmoor)	Upper Darby	Total Southwest	Springfield (Wyndmoor)	Total	
	FY 2017 Test Year																	
	Volume:									1,473,000	Total Northeast excluding Cheltenham							
1	Sanitary Wastewater	(Mcf)		100,000	175,000	870,000	350,000	58,000	270,000	1,823,000	1,200,000	360,000	160,000	470,000	2,190,000	19,000	4,032,000	
2	Infiltration	(Mcf)		4,500	5,600	35,100	9,800	2,800	7,500	65,300		14,900	2,200	16,600	33,700	900	99,900	
3	Total	(Mcf)		104,500	180,600	905,100	359,800	60,800	277,500	1,888,300	1,200,000	374,900	162,200	486,600	2,223,700	19,900	4,131,900	
										1,528,500	Total Northeast excluding Cheltenham							
	Suspended Solids:																	
4	Sanitary Wastewater	(1,000 lbs)		1,098	2,239	9,718	3,101	597	2,696	19,449	13,104	3,707	1,697	4,604	23,112	130	42,691	
5	Infiltration	(1,000 lbs)		28	35	219	61	17	47	407		93	14	104	211	6	624	
6	Total	(1,000 lbs)		1,126	2,274	9,937	3,162	614	2,743	19,856	13,104	3,800	1,711	4,708	23,323	136	43,315	
	BOD																	
7	Sanitary Wastewater	(1,000 lbs)		1,098	2,479	9,609	2,708	449	2,106	18,449	11,082	3,190	1,797	3,989	20,058	100	38,607	
8	Infiltration	(1,000 lbs)		7	9	55	15	4	12	102		23	3	26	52	1	155	
9	Total	(1,000 lbs)		1,105	2,488	9,664	2,723	453	2,118	18,551	11,082	3,213	1,800	4,015	20,110	101	38,762	
	Contract Maximum Units										Units-16	Units-16	Units-16					
	Capacity:			Units-16	Units-16	Units-16	Units-16	Units-16	Units-16	10,126	Total Northeast excluding Cheltenham			Units-16		Units-16		
	Sanitary Wastewater	(cfs)		9.542	11.740	74.260	20.750	5.880	15.790		155.000	31.570	4.600	35.000		1.930		
10	Sanitary Wastewater	(Mcf/day)		824	1,014	6,416	1,793	508	1,364	11,919	13,392	2,728	397	3,024	19,541	167	31,627	Units-3
11	Infiltration	(Mcf/day)		20	20	140	40	10	30	260		60	10	70	140	0	400	1.5
12	Total	(Mcf/day)		844	1,034	6,556	1,833	518	1,394	12,179	13,392	2,788	407	3,094	19,681	167	32,027	I/I
										10,346	Total Northeast excluding Cheltenham							
	Volume:			Units-16	Units-16	Units-16	Units-16	Units-16	Units-16		Units-16	Units-16	Units-16	Units-16		Units-16		
	Sanitary Wastewater	(mgd)		4.453	6.133	24.000	13.410	1.900	7.140		50.000	14.500	3.200	17.000		1.000		
13	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	
14	Infiltration	(Mcf)		4,500	5,600	35,100	9,800	2,800	7,500	65,300		14,900	2,200	16,600	33,700	900	99,900	1.5%
15	Total	(Mcf)		221,792	304,871	1,206,223	664,170	95,514	355,909	2,848,479	2,439,840	722,453	158,350	846,145	4,166,788	49,697	7,064,964	I/I
	Suspended Solids:			calc'd	Units-16	Units-16	calc'd	Units-16	Units-16		Units-16	Units-16	Units-16	Units-16		Units-16		
16	Sanitary Wastewater	(1,000 lbs)		2,386	3,734	13,400	5,798	966	6,000	32,284	19,487	7,250	1,200	7,349	35,286	200	67,770	
17	Infiltration (a)	(1,000 lbs)		28	35	219	61	17	47	407		93	14	104	211	6	624	
18	Total	(1,000 lbs)		2,414	3,769	13,619	5,859	983	6,047	32,691	19,487	7,343	1,214	7,453	35,497	206	68,394	
	BOD:			calc'd	Units-16	Units-16	calc'd	Units-16	Units-16		Units-16	Units-16	Units-16	Units-16		Units-16		
19	Sanitary Wastewater	(1,000 lbs)		2,386	5,340	13,400	5,063	729	5,500	32,418	21,771	6,871	1,050	6,831	36,523	155	69,096	
20	Infiltration	(1,000 lbs)		7	9	55	15	4	12	102		23	3	26	52	1	155	
21	Total	(1,000 lbs)		2,393	5,349	13,455	5,078	733	5,512	32,520	21,771	6,894	1,053	6,857	36,575	156	69,251	

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

#VALUE!

UNITS OF WASTEWATER SERVICE
Test Year 2017

Customer Class	(1) FY 2017 Test Year (a) Mcf Wtr Sales * 0.95	(2) Capacity Flow Rate Collection System (b) Mcf/day (7) / 365 * capacity ftr	(3) Capacity Flow Rate Pumping and Treatment (c) Mcf/day (7) / 365 * capacity ftr
Residential (5/8)	2,634,305	28,869	10,826
Residential (>5/8)	363,814	3,987	1,495
Commercial (5/8)	289,330	3,171	1,189
Commercial (>5/8)	886,194	9,712	3,642
Industrial (5/8)	5,632	62	23
Industrial (>5/8)	75,342	826	310
Public Utilities (5/8)	414	5	2
Public Utilities (>5/8)	8,791	96	36
Senior Citizens (5/8)	105,991	1,162	436
Senior Citizens (>5/8)	32	0	0
Water Plant Sludge	341,600	3,744	1,404
Housing Authority	162,408	1,780	667
Charities & Schools	188,510	2,066	775
Hospital/University	276,560	3,031	1,137
Hand Bill	466,334	5,111	1,916
Scheduled (Flat Rate)	20	0	0
Sewer Only	40,530	444	167
Groundwater	190,000	4,164	1,301
Fire Meters	2,660	29	11
City Leased Properties	4,099	45	17
City	220,400	2,415	906
Subtotal Retail Sanitary	6,262,966	70,719	26,260
	Units-4 - above		
I/I	10,831,134	237,395	74,186
Total Retail Service	17,094,100	308,114	100,446
Contract Service:	Units-2	Units-2	Units-2
Sanitary	4,032,000	31,627	31,627
I/I	99,900	400	400
Total	4,131,900	32,027	32,027
Total System	21,226,000	340,141	132,473

(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.

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

TREATMENT PLANTS UNITS OF SERVICE

	FY 2017 Test Year Volume			FY 2017 Test Year Capacity			FY 2017 Test Year Treatment Plant			
									average plant strengths	
Plant	Total	Contract Customers	Net Retail	Total	Contract Customers	Net Retail	SS	BOD	SS	BOD
	Mcf	Mcf	Mcf	Mcf/day	Mcf/day	Mcf/day	1,000 lbs	1,000 lbs	ppm	ppm
	Units-7	Units-2		Units-3	Units-2				Pltdes-5	Pltdes-5
NE	8,295,000	1,888,300	6,406,700	51,770	12,179	39,591	119,387	77,646	231	150
SW	8,539,000	2,223,700	6,315,300	53,293	19,681	33,612	85,992	57,687	161	108
SE	4,392,000	19,900	4,372,100	27,410	167	27,243	37,740	30,568	138	112
Total	21,226,000	4,131,900	17,094,100	132,473	32,027	100,446	243,119	165,901	184	125

PUMPING STATIONS UNITS OF SERVICE

Central Schuylkill Pumping Station

Volume:	2,715,700	Mcf/yr	BD-24		
Capacity:					
Total Capacity of CSPS (Mcf/day)				22,110	PN 12065 - I-25
Contract Maximum Springfield (excluding Wyndoor) (Mcf/day)				370	PN 12065 - I-25

Neill Drive Pumping Station

Volume:	69,650	Mcf/yr	BD-24		
Capacity:					
Total Capacity of NDPS (Mcf/day)				370	Unable to verify; leave as is per JRM 6-4-92

UNITS OF WASTEWATER SERVICE
Test Year 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Capacity Flow Rate		Strength		Customer			
Customer Class	FY 2017 Test Year	Collection System	Pumping and Treatment	Suspended Solids (b)	BOD (c)	Equivalent Bills	Equivalent Meters	Equivalent Service Meters	Bills
	Mcf	Mcf/day	Mcf/day	1,000 lbs	1,000 lbs				
	Units-3	(7) / 365	(8) * capacity factor			Units-11	Units-12	Units-12	
Residential	2,998,153	32,858	12,321	56,125	52,384	4,892,702	421,071	407,392	4,880,004
Commercial	1,175,524	12,882	4,831	22,006	20,539	444,908	71,996	34,963	405,540
Industrial	80,974	887	333	1,516	1,415	15,023	3,711	1,127	12,444
Public Utilities	9,205	101	38	172	161	2,498	989	126	1,488
Senior Citizens	106,023	1,162	436	1,985	1,852	242,093	20,181	20,174	242,088
Sewer Only	40,530	444	167	759	708	1,238	374	67	792
Groundwater	190,000	4,164	1,301	830	119				
Surcharge	0	0	0	2,577	12,688				
Water Treatment Plant Sludge	341,600	3,744	1,404	15,000					
Housing Authority	162,408	1,780	667	3,040	2,838	72,122	8,142	5,704	69,132
Charities & Schools	188,510	2,066	775	3,529	3,294	48,530	17,711	2,267	30,000
Hospital/University	276,560	3,031	1,137	5,177	4,832	15,675	8,404	237	5,172
Hand Bill	466,334	5,111	1,916	8,730	8,148	9,378	5,134	124	2,964
Scheduled (Flat Rate)	20	0	0	0	0	24	2	2	24
Fire Meters	2,660	29	11	50	46	1,134	297	81	888
City Leased Properties	4,099	45	17	77	72	840	353	43	480
City	220,400	2,415	906	4,126	3,851	21,998	10,561	899	10,344
Subtotal Retail Sanitary	6,263,000	70,719	26,260	125,699	112,947	5,768,163	568,926	473,205	5,661,360
I/I	10,831,100	237,395	74,186	47,298	6,757				
Total Retail Service	17,094,100	308,114	100,446	172,997	119,704	5,768,163	568,926	473,205	5,661,360
Contract Service:		Units-3	Units-3	Units-9	Units-9				
Sanitary	4,032,000	31,627	31,627	42,691	38,607				
I/I	99,900	400	400	436	62				
Total	4,131,900	32,027	32,027	43,127	38,669				
Total System	21,226,000	340,141	132,473	216,124	158,373				

(a) Adjusted to exclude 5% not entering sewers.
(b) Retail SS @ 300 mg/l
(c) Retail BOD @ 280 mg/l

Units of Service - Treatment Plant Flows and Strengths
Test Year 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			BOD				SS			
			Basis of Allocation				Basis of Allocation			
Plant	Influent Flow		Average Strength	Total Pounds	Allocation of Total Pounds	Resulting Average Strength	Average Strength	Total Pounds	Allocation of Total Pounds	Resulting Average Strength
	mgd	Mcf	ppm	1,000 lbs	1,000 lbs	ppm	ppm	1,000 lbs	1,000 lbs	ppm
	Pltdes-5	Units-4	Pltdes-5	Units-4	Allocate Units-6 on Col. (4)	(5)/(1)/365 /.00834	Pltdes-5	Units-4	Allocate Units-6 on Col. (8)	(9)/(1)/365 /0.00834
NE	170	8,295,000	150	77,646	74,123	143	231	119,387	106,130	205
SW	175	8,539,000	108	57,687	55,069	103	161	85,992	76,444	143
SE	90	4,392,000	112	30,568	29,181	107	138	37,740	33,550	122
Total	435	21,226,000	125	165,901	158,373	120	184	243,119	216,124	163

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ESTIMATED ANNUAL SANITARY WASTEWATER CONTRIBUTION BY CUSTOMER CLASS

Test Year 2017

Line No.	Customer Class	(1) Total Volume Billable for Wastewater Service (a)	(2) Estimated Wastewater Contribution Factor	(3) Estimated Annual Sanitary Wastewater Volume
		Mcf (3) / [(2)/100]		Mcf Units-6
1	Residential	3,156,000	95	2,998,153
2	Commercial	1,237,400	95	1,175,524
3	Industrial	85,200	95	80,974
4	Public Utilities	9,700	95	9,205
5	Senior Citizens	111,600	95	106,023
6	Sewer Only	42,700	95	40,530
7	Groundwater	190,000	100	190,000
8	Housing Authority	171,000	95	162,408
9	Charities & Schools	198,400	95	188,510
10	Hospital/University	291,100	95	276,560
11	Hand Bill	490,900	95	466,334
12	Scheduled	0	95	20
13	Fire Meters	2,800	95	2,660
14	City Leased Properties	4,300	95	4,099
15	City	232,000	95	220,400
16	Total Retail	6,223,100	95	5,921,400
17	Contract Service (b)	4,032,000	100	4,032,000
18	Total System	10,255,100	97	9,953,400

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.

Units of Service - Retail
Average BOD and SS Strengths
Test Year 2017

Line No.		(1) BOD	(2) SS	(3) Volume	(4) BOD	(5) SS			
		1,000 lbs	1,000 lbs	mgd	mg/l	mg/l			
			Calc from Units-6						
1	Total Pounds Flowing Into Treatment Plants	165,901	243,119	435.0	125.286	183.599			
	Less Infiltration /Inflow Contribution								
	Contract Customers			2.0					
2	BOD @ 10 ppm x 99,900.0 Mcf	62							
3	SS @ 70 ppm x 99,900.0 Mcf		436						
	Retail Customers			222.0					
4	BOD @ 10 ppm x 10,831,100 Mcf	6,757							45,497
5	SS @ 70 ppm x 10,831,100 Mcf		47,298				96.21%	70.00%	67%
		Units-2	Units-2	Units-2					
6	Less Contract Customers Sanitary Contribution	38,607	42,691	82.6					
7	Subtotal Retail Sanitary Contribution	120,475	152,694	128.4					
8	Less Surcharge Excess Strength Contribution	12,688	2,577		Projection based average loading per account and projected surcharge accounts				
9	Less Water Treatment Plant Sludge (a)		15,000	7.0	Based on historical WTP Sludge volume and loading data				
10	Net Normal Strength Retail	107,787	135,117	121.4			81%	91%	
11	Resulting Retail Average Strength of Sanitary Volume Contributed to Collection System	291.668	365.621						
					Estimated Infiltration/Inflow Strengths				
		USE	USE		BOD	SS			
12	Average Retail Strengths (mg/l)	280	300		10	70			
					10	70			
	(a) Includes 15,000,000 lbs. of SS from Water Treatment Plant sludg	230	235		25	100	PREVIOUS VALUES		

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	0.9916	0.0001	0.0053	0.0000	0.0015	0.0011	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	x
Commercial	1.000000	0.8259	0.0004	0.0753	0.0000	0.0310	0.0416	0.0147	0.0077	0.0027	0.0005	0.0001	0.0000	
Industrial	1.000000	0.5105	0.0000	0.2424	0.0000	0.0798	0.1036	0.0447	0.0124	0.0067	0.0000	0.0000	0.0000	
Public Utilities	1.000000	0.3162	0.0000	0.2308	0.0000	0.0855	0.1624	0.1111	0.0342	0.0513	0.0085	0.0000	0.0000	
Senior Citizens	1.000000	0.9998	0.0000	0.0002	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Sewer Only	1.000000	0.8136	0.0169	0.0169	0.0000	0.0000	0.0678	0.0169	0.0000	0.0339	0.0339	0.0000	0.0000	x
Groundwater	1.000000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	x
Housing Authority	1.000000	0.9806	0.0000	0.0022	0.0000	0.0014	0.0026	0.0063	0.0034	0.0024	0.0012	0.0000	0.0000	x
Charities & Schools	1.000000	0.4839	0.0000	0.1283	0.0000	0.0624	0.0984	0.0942	0.1179	0.0130	0.0019	0.0000	0.0000	x
Hospital/University	1.000000	0.1161	0.0000	0.0739	0.0000	0.0369	0.1451	0.2348	0.2401	0.1346	0.0158	0.0026	0.0000	x
Hand Bill	1.000000	0.0836	0.0000	0.0582	0.0000	0.0400	0.1455	0.2582	0.2800	0.0945	0.0291	0.0109	0.0000	
City Leased Properties	1.000000	0.2500	0.0000	0.1136	0.0000	0.1136	0.2500	0.1136	0.1591	0.0000	0.0000	0.0000	0.0000	
Scheduled	1.000000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
City	1.000000	0.2349	0.0011	0.1300	0.0000	0.0787	0.2714	0.1460	0.0684	0.0376	0.0137	0.0171	0.0011	x
Fire Service	1.000000	0.6795	0.0000	0.1026	0.0000	0.0385	0.1154	0.0128	0.0385	0.0128	0.0000	0.0000	0.0000	

Number of Bills - TY 2017	
Residential	4,880,004
Commercial	405,540
Industrial	12,444
Public Utilities	1,488
Senior Citizens	242,088
Sewer Only	792
Groundwater	108
Housing Authority	69,132
Charities & Schools	30,000
Hospital/University	5,172
Hand Bill	2,964
City Leased Properties	480
Scheduled	24
City	10,344
Fire Service	888

Reference: #VALUE!

EQUIVALENT WASTEWATER BILLS
Retail Customers
Excludes Water Only; Includes Sewer Only
Test Year 2017

	FY 2017 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"	4,832,796	4,832,796												
>5/8"	47,208		448	29,629	0	8,287	6,154	1,902	584	163	41	0	0	
Total Bills	4,880,004	4,832,796	448	29,629	0	8,287	6,154	1,902	584	163	41	0	0	
Equivalent Bills	4,892,702	4,832,796	448	32,592	0	9,944	9,231	3,804	2,336	1,141	410	0	0	
Commercial														
Bills														
5/8"	333,444	333,444												
>5/8"	72,096		183	31,194	0	12,831	17,247	6,079	3,180	1,101	220	61	0	
Total Bills	405,540	333,444	183	31,194	0	12,831	17,247	6,079	3,180	1,101	220	61	0	
Equivalent Bills	444,908	333,444	183	34,313	0	15,397	25,871	12,158	12,720	7,707	2,200	915	0	
Industrial														
Bills														
5/8"	6,528	6,528												
>5/8"	5,916		0	2,930	0	965	1,252	540	149	80	0	0	0	
Total Bills	12,444	6,528	0	2,930	0	965	1,252	540	149	80	0	0	0	
Equivalent Bills	15,023	6,528	0	3,223	0	1,158	1,878	1,080	596	560	0	0	0	
Public Utilities														
Bills														
5/8"	528	528												
>5/8"	960		0	324	0	120	228	156	48	72	12	0	0	
Total Bills	1,488	528	0	324	0	120	228	156	48	72	12	0	0	
Equivalent Bills	2,498	528	0	356	0	144	342	312	192	504	120	0	0	
Senior Citizens														
Bills														
5/8"	242,052	242,052												
>5/8"	36		0	27	0	9	0	0	0	0	0	0	0	
Total Bills	242,088	242,052	0	27	0	9	0	0	0	0	0	0	0	
Equivalent Bills	242,093	242,052	0	30	0	11	0	0	0	0	0	0	0	
Sewer Only														
Bills	792	645	13	13	0	0	54	13	0	27	27	0	0	
Equivalent Bills	1,238	645	13	14	0	0	81	26	0	189	270	0	0	

Groundwater													
Bills	108	108	0	0	0	0	0	0	0	0	0	0	0
Equivalent Bills	108	108	0	0	0	0	0	0	0	0	0	0	0
Housing Authority													
Bills	69,132	67,792	0	153	0	94	176	435	235	165	82	0	0
Equivalent Bills	72,122	67,792	0	168	0	113	264	870	940	1,155	820	0	0
Charities & Schools													
Charities & Schools													
Bills	30,000	14,518	0	3,848	0	1,872	2,952	2,825	3,537	391	57	0	0
Equivalent Bills	48,530	14,518	0	4,233	0	2,246	4,428	5,650	14,148	2,737	570	0	0
Hospitals and Universities													
Bills	5,172	599	0	382	0	191	751	1,215	1,242	696	82	14	0
Equivalent Bills	15,675	599	0	420	0	229	1,127	2,430	4,968	4,872	820	210	0
Hand Bill													
Bills	2,964	249	0	172	0	119	431	765	830	280	86	32	0
Equivalent Bills	9,378	249	0	189	0	143	647	1,530	3,320	1,960	860	480	0
City Leased Properties													
Bills	480	119	0	55	0	55	120	55	76	0	0	0	0
Equivalent Bills	840	119	0	61	0	66	180	110	304	0	0	0	0
Scheduled													
Bills	24	24	0	0	0	0	0	0	0	0	0	0	0
Equivalent Bills	24	24	0	0	0	0	0	0	0	0	0	0	0
City													
Bills	10,344	2,428	12	1,345	0	814	2,807	1,510	708	389	142	177	12
Equivalent Bills	21,998	2,428	12	1,480	0	977	4,211	3,020	2,832	2,723	1,420	2,655	240
Fire Service													
Bills	888	605	0	91	0	34	102	11	34	11	0	0	0
Equivalent Bills	1,134	605	0	100	0	41	153	22	136	77	0	0	0
Total													
Bills	5,661,360	5,502,327	656	70,163	0	25,391	32,274	15,506	10,623	3,375	749	284	12
Equivalent Bills	5,768,163	5,502,327	656	77,179	0	30,469	48,413	31,012	42,492	23,625	7,490	4,260	240

EQUIVALENT WASTEWATER "METERS"
Retail Customers
Excludes Water Only; Includes Sewer Only
Test Year 2017

	FY 2017 Test Year Number of Meters(a)	5/8	3/4	1	1 1/4	1 1/2	2	3	4	6	8	10	12	14
							Number of Bills (Units-11) / 12							
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	406,668	402,733	37	2,469	0	691	513	159	49	14	3	0	0	
Equivalent Meters	421,071	402,733	56	6,173	0	3,455	4,104	2,385	1,225	700	240	0	0	
Equivalent Service	407,392	402,733	37	2,716	0	829	1,077	0	0	0	0	0	0	0
Commercial														
Meters	33,795	27,787	15	2,600	0	1,069	1,437	507	265	92	18	5	0	
Equivalent Meters	71,996	27,787	23	6,500	0	5,345	11,496	7,605	6,625	4,600	1,440	575	0	
Equivalent Service	34,963	27,787	15	2,860	0	1,283	3,018	0	0	0	0	0	0	0
Industrial														
Meters	1,036	544	0	244	0	80	104	45	12	7	0	0	0	
Equivalent Meters	3,711	544	0	610	0	400	832	675	300	350	0	0	0	
Equivalent Service	1,127	544	0	268	0	96	218	0	0	0	0	0	0	0
Public Utilities														
Meters	124	44	0	27	0	10	19	13	4	6	1	0	0	
Equivalent Meters	989	44	0	68	0	50	152	195	100	300	80	0	0	
Equivalent Service	126	44	0	30	0	12	40	0	0	0	0	0	0	0
Senior Citizens														
Meters	20,174	20,171	0	2	0	1	0	0	0	0	0	0	0	
Equivalent Meters	20,181	20,171	0	5	0	5	0	0	0	0	0	0	0	
Equivalent Service	20,174	20,171	0	2	0	1	0	0	0	0	0	0	0	0
Sewer Only														
Meters	66	54	1	1	0	0	5	1	0	2	2	0	0	
Equivalent Meters	374	54	2	3	0	0	40	15	0	100	160	0	0	
Equivalent Service	67	54	1	1	0	0	11	0	0	0	0	0	0	0
Groundwater														
Meters	9	9	0	0	0	0	0	0	0	0	0	0	0	
Equivalent Meters	9	9	0	0	0	0	0	0	0	0	0	0	0	
Equivalent Service	9	9	0	0	0	0	0	0	0	0	0	0	0	0
Housing Authority														
Meters	5,762	5,649	0	13	0	8	15	36	20	14	7	0	0	
Equivalent Meters	8,142	5,649	0	33	0	40	120	540	500	700	560	0	0	
Equivalent Service	5,704	5,649	0	14	0	10	32	0	0	0	0	0	0	0

Charities & Schools														
Charities & Schools														
Meters	2,501	1,210	0	321	0	156	246	235	295	33	5	0	0	
Equivalent Meters	17,711	1,210	0	803	0	780	1,968	3,525	7,375	1,650	400	0	0	
Equivalent Service	2,267	1,210	0	353	0	187	517	0	0	0	0	0	0	0
Hospital/University														
Meters	432	50	0	32	0	16	63	101	104	58	7	1	0	
Equivalent Meters	8,404	50	0	80	0	80	504	1,515	2,600	2,900	560	115	0	
Equivalent Service	237	50	0	35	0	19	132	0	0	0	0	0	0	0
Hand Bill														
Meters	247	21	0	14	0	10	36	64	69	23	7	3	0	
Equivalent Meters	5,134	21	0	35	0	50	288	960	1,725	1,150	560	345	0	
Equivalent Service	124	21	0	15	0	12	76	0	0	0	0	0	0	0
City Leased Properties														
Meters	41	10	0	5	0	5	10	5	6	0	0	0	0	
Equivalent Meters	353	10	0	13	0	25	80	75	150	0	0	0	0	
Equivalent Service	43	10	0	6	0	6	21	0	0	0	0	0	0	0
Scheduled														
Meters	2	2	0	0	0	0	0	0	0	0	0	0	0	
Equivalent Meters	2	2	0	0	0	0	0	0	0	0	0	0	0	
Equivalent Service	2	2	0	0	0	0	0	0	0	0	0	0	0	0
City														
Meters	862	202	1	112	0	68	234	126	59	32	12	15	1	
Equivalent Meters	10,561	202	2	280	0	340	1,872	1,890	1,475	1,600	960	1,725	215	
Equivalent Service	899	202	1	123	0	82	491	0	0	0	0	0	0	0
Fire Service														
Meters	75	50	0	8	0	3	9	1	3	1	0	0	0	
Equivalent Meters	297	50	0	20	0	15	72	15	75	50	0	0	0	
Equivalent Service	81	50	0	9	0	4	19	0	0	0	0	0	0	0
Total (b)														
Meters	471,785	458,527	54	5,848	0	2,117	2,691	1,293	886	282	62	24	1	
Equivalent Meters	568,926	458,527	83	14,623	0	10,585	21,528	19,395	22,150	14,100	4,960	2,760	215	
Equivalent Service	473,205	458,527	54	6,433	0	2,540	5,651	0	0	0	0	0	0	

(a) Including Wastewater Only.
(b) Excludes Groundwater

TABLE WW - 8

UNITS OF WASTEWATER SERVICE
TEST YEAR 2017

Line No.	Customer Class	(1) FY 2017 Test Year Volume	(2) Capacity Flow Rate: Collection System	(3) Capacity Flow Rate: Pumping and Treatment	(4) Strength: Suspended Solids	(5) Strength: BOD	(6) Customer: Equivalent Bills	(7) Customer: Equivalent Meters	(8) Customer: Equivalent Service	(9) Customer: Bills
		Mcf	Mcf/day	Mcf/day	1,000 lbs	1,000 lbs				
		Units-6	Units-6	Units-6	Units-6	Units-6	Units-6	Units-6	Units-6	
1	Residential	2,998,153	32,858	12,321	56,125	52,384	4,892,702	421,071	407,392	4,880,004
2	Commercial	1,175,524	12,882	4,831	22,006	20,539	444,908	71,996	34,963	405,540
3	Industrial	80,974	887	333	1,516	1,415	15,023	3,711	1,127	12,444
4	Public Utilities	9,205	101	38	172	161	2,498	989	126	1,488
5	Senior Citizens	106,023	1,162	436	1,985	1,852	242,093	20,181	20,174	242,088
6	Sewer Only	40,530	444	167	759	708	1,238	374	67	792
7	Groundwater	190,000	4,164	1,301	830	119	0	0	0	0
8	Surcharge				2,577	12,688				0
9	Water Treatment Plant Sludge	341,600	3,744	1,404	15,000					
10	Housing Authority	162,408	1,780	667	3,040	2,838	72,122	8,142	5,704	69,132
11	Charities	465,070	5,097	1,912	8,706	8,126	64,205	26,115	2,504	35,172
12	Hand Bill	466,334	5,111	1,916	8,730	8,148	9,378	5,134	124	2,964
13	Scheduled	20	0	0	0	0	24	2	2	24
14	Fire Meters	2,660	29	11	50	46	1,134	297	81	888
15	City Leased Properties	4,099	45	17	77	72	840	353	43	480
16	City	220,400	2,415	906	4,126	3,851	21,998	10,561	899	10,344
17	Subtotal Retail Sanitary	6,263,000	70,719	26,260	125,699	112,947	5,768,163	568,926	473,205	5,661,360
18	Infiltration/Inflow	10,831,100	237,395	74,186	47,298	6,757				0
19	Total Retail Service	17,094,100	308,114	100,446	172,997	119,704	5,768,163	568,926	473,205	5,661,360
20	Contract Service:									
21	Sanitary	4,032,000	31,627	31,627	42,691	38,607				
22	Infiltration/Inflow	99,900	400	400	436	62				
23	Total Contract Service	4,131,900	32,027	32,027	43,127	38,669				
24	Total System	21,226,000	340,141	132,473	216,124	158,373				

x

TABLE_WW-29

ESTIMATED AVERAGE WASTEWATER STRENGTH CONCENTRATIONS FOR CONTRACT CUSTOMERS

Test Year 2017

	Average Wastewater Strength Concentrations	
	Suspended Solids mg/l	BOD mg/l
Abington	176	176
Bensalem	205	227
Bucks County	179	177
Cheltenham	142	124
DELCORA	175	148
Lower Merion	165	142
Lower Moreland	165	124
Lower Southhampton	160	125
Springfield (excluding Wyndoor)	170	180
Springfield (Wyndoor)	110	84
Upper Darby	157	136

mg/l - milligram per liter

EQUIVALENT BILL AND METER RATIOS

Meter Size	Equivalent Factors: Bills (Units-11)	Equivalent Factors: Meters Capacity Basis (Units-12)	Equivalent Factors: Service Cost Basis
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
1-1/12	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

Summary of Wholesale Contract Agreements

Township	Flow Limits: Maximum Annual Avg (mgd)		Instantaneous Maximum (cfs)	Maximum Annual Loadings SS (1,000 lbs)	Maximum Annual Loadings BOD (1,000 lbs)	
Springfield						
Erdenheim	3.200		4.600	1,200	1,050	
Wyndmoor	1.000		1.930	200	155	
Lower Merion	14.500		31.570	7,250	6,871	
Delcora	50.000		155.000	19,487.0	21,771.0	x
Upper Darby	17.000		35.000	7,348.5	6,831.0	
Abington	4.453		9.542	2,481.0	2,102.0	
Bensalem	6.133		11.740	3,734	5,340	
Bucks County	24.000		74.260	13,400	13,400	
Cheltenham	13.4101	(a)	20.750	#N/A	#N/A	
Lower Moreland	1.900		5.880	966	729	
Lower Southampton	7.140		15.790	6,000	5,500	

NA - Not Available
Reference: Existing Wholesale Contract Agreements

(a) Assumed equal to Instantaneous Maximum stated on a max. day basis.

Lower Moreland	Maximum Annual Avg (mgd)	Instantaneous Maximum (cfs)	Max Annual Loadings SS (1,000 lbs)	Max Annual Loadings BOD (1,000 lbs)
2015	1.575	8.970	592	568
2016	1.900	5.880	966	729
2017	1.900	5.880	966	729
2018	1.900	5.880	966	729
2019	1.900	5.880	966	729
2020	1.900	5.880	966	729
2021	1.900	5.880	966	729
2022	1.900	5.880	966	729
2023	1.900	5.880	966	729
2024	1.900	5.880	966	729
2025	1.900	5.880	966	729
2026	1.900	5.880	966	729
2027	1.900	5.880	966	729
2028	1.900	5.880	966	729
2029	1.900	5.880	966	729
TY 2017	1.900	5.880	966	729

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PLTDES

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

Range	Description	Page Number	Table
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	

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	Sludge Quantities %	
	Plant Influent						
1	Flow - mgd	170					Pltdes-5
2	SS Strength - mg/l			230.73			Pltdes-5
3	BOD Strength - mg/l			150.06			Pltdes-5
4	Solid: (SS) - ppd				327,130		Line 1 x Line 2 x 8.34
	Primary Treatment						
5	SS Removed - %		50.0				
6	SS Removed - mg/l			115.37			Line 2 x Line 5
7	BOD Removed - %		22.5				
8	BOD Removed - mg/l			33.76			Line 3 x Line 7
	Solids Removed:						
9	SS - ppd				163,565		Line 4 x Line 5
	Secondary Treatment						
	Influent Strength						
10	SS - mg/l			115.36			Line 2 - Line 6
11	BOD - mg/l			116.30			Line 3 - Line 8
12	Solids: (SS) - ppd				163,565		Line 4 - Line 9
	Solids accumulated						
13	SS - ppd				85,054	50.8	Line 12 x 0.52
14	BOD ppd				82,446	49.2	Line 11 x Line 1 x 8.34 x 0.5
15	Total - ppd				167,500	100.0	Line 13 + Line 14
	Plant Effluent						
	Solids:						
16	Assume - mg/l			30.00			
17	??? - ppd				42,534		Line 1 x 8.34 x Line 16
18	SS related - ppd				21,607		Line 13 x Line 17
19	BOD related - ppd				20,927		Line 17 - Line 18
	Solids to Digesters						
20	SS from primary treatment- ppd				163,565		Line 9
21	SS from secondary treatment - ppd				63,447		Line 13 - Line 18
22	Total SS - ppd				227,012	78.7	Line 20 + Line 21
23	BOD - ppd				61,519	21.3	Line 14 - Line 19
24	Total Solids - ppd				288,531	100.0	Line 22 + Line 23
25	Dry Solids Concentration - %		4.2				
26	Volume - mgd	0.82372					Line 24 / (Line 25 x 8.34 x 1mil)
27	Volatile Solids - ppd				219,404		Line 9 x 0.8 + Line 21 x 0.62 + Line 23 x 0.8
28	Volatile Solids - %		76.04				100 x Line 27 / Line 24
29	Fixed Solids - ppd				69,127		Line 24 - Line 27

	Solids from Digesters				
	Volatile Solids				
30	VSS Destroyed - ppd			119,534	Line 9 x 0.46 + line 23 x 0.72
31	VSS Remaining - ppd			99,870	Line 27 - Line 30
32	Total Solids - ppd			168,997	Line 29 + Line 31
33	Dry Solids Concentration - %		2.7		
34	Volume - mgd	0.75050			Line 32 / (Line 33 x 8.34 x 1mil)

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.		mgd	%	mg/l	Sludge Quantities ppd	Sludge Quantities %	
	Plant Influent						
1	Flow - mgd	175					Pltdes-5
2	SS Strength - mg/l			161.44			Pltdes-5
3	BOD Strength - mg/l			108.30			Pltdes-5
4	Solid: (SS) - ppd				235,623		Line 1 x Line 2 x 8.34
	Primary Treatment						
5	SS Removed - %		45				
6	SS Removed - mg/l			72.65			Line 2 x Line 5
7	BOD Removed - %		25.00				
8	BOD Removed - mg/l			27.08			Line 3 x Line 7
	Solids Removed:						
9	SS - ppd				106,030		Line 4 x Line 5
	Secondary Treatment						
	Influent Strength						
10	SS - mg/l			88.79			Line 2 - Line 6
11	BOD - mg/l			81.22			Line 3 - Line 8
12	Solids: (SS) - ppd				129,593		Line 4 - Line 9
	Solids accumulated						
13	SS - ppd				67,388	53.2	Line 12 x 0.52
14	BOD ppd				59,272	46.8	Line 11 x Line 1 x 8.34 x 0.5
15	Total - ppd				126,660	100.0	Line 13 + Line 14
	Plant Effluent						
	Solids:						
16	Assume - mg/l			30.00			
17	??? - ppd				43,785		Line 1 x 8.34 x Line 16
18	SS related - ppd				23,294		Line 13 x Line 17
19	BOD related - ppd				20,491		Line 17 - Line 18
	Solids to Digesters						
20	SS from primary treatment- ppd				106,030		Line 9
21	SS from secondary treatment - ppd				44,094		Line 13 - Line 18
22	Total SS - ppd				150,124	79.5	Line 20 + Line 21
23	BOD - ppd				38,781	20.5	Line 14 - Line 19
24	Total Solids - ppd				188,905	100.0	Line 22 + Line 23
25	Dry Solids Concentration - %		4.00				
26	Volume - mgd	0.56626					Line 24 / (Line 25 x 8.34 x 1mil)
27	Volatile Solids - ppd				143,187		Line 9 x 0.8 + Line 21 x 0.62 + Line 23 x 0.8
28	Volatile Solids - %		75.80				100 x Line 27 / Line 24
29	Fixed Solids - ppd				45,718		Line 24 - Line 27

	Solids from Digesters				
	Volatile Solids				
30	VSS Destroyed - ppd			76,696	Line 9 x 0.46 + line 23 x 0.72
31	VSS Remaining - ppd			66,491	Line 27 - Line 30
32	Total Solids - ppd			112,209	Line 29 + Line 31
33	Dry Solids Concentration - %		3.00		
34	Volume - mgd	0.44848			Line 32 / (Line 33 x 8.34 x 1mil)

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.		mgd	%	mg/l	Sludge Quantities ppd	Sludge Quantities %	
	Plant Influent						
1	Flow - mgd	90					Pltdes-5
2	SS Strength - mg/l			137.76			Pltdes-5
3	BOD Strength - mg/l			111.58			Pltdes-5
4	Solid: (SS) - ppd				103,399		Line 1 x Line 2 x 8.34
	Primary Treatment						
5	SS Removed - %		55.00				
6	SS Removed - mg/l			75.77			Line 2 x Line 5
7	BOD Removed - %		40.00				
8	BOD Removed - mg/l			44.63			Line 3 x Line 7
	Solids Removed:						
9	SS - ppd				56,869		Line 4 x Line 5
	Secondary Treatment						
	Influent Strength						
10	SS - mg/l			61.99			Line 2 - Line 6
11	BOD - mg/l			66.95			Line 3 - Line 8
12	Solids: (SS) - ppd				46,530		Line 4 - Line 9
	Solids accumulated						
13	SS - ppd				24,196	49.1	Line 12 x 0.52
14	BOD ppd				25,124	50.9	Line 11 x Line 1 x 8.34 x 0.5
15	Total - ppd				49,320	100.0	Line 13 + Line 14
	Plant Effluent						
	Solids:						
16	Assume - mg/l			30.00			
17	??? - ppd				22,518		Line 1 x 8.34 x Line 16
18	SS related - ppd				11,056		Line 13 x Line 17
19	BOD related - ppd				11,462		Line 17 - Line 18
	Solids to Digesters						
20	SS from primary treatment- ppd				56,869		Line 9
21	SS from secondary treatment - ppd				13,140		Line 13 - Line 18
22	Total SS - ppd				70,009	83.7	Line 20 + Line 21
23	BOD - ppd				13,662	16.3	Line 14 - Line 19
24	Total Solids - ppd				83,671	100.0	Line 22 + Line 23
25	Dry Solids Concentration - %		4.00				
26	Volume - mgd	0.25081					Line 24 / (Line 25 x 8.34 x 1mil)
27	Volatile Solids - ppd				64,572		Line 9 x 0.8 + Line 21 x 0.62 + Line 23 x 0.8
28	Volatile Solids - %		77.17				100 x Line 27 / Line 24
29	Fixed Solids - ppd				19,099		Line 24 - Line 27

	Solids from Digesters				
	Volatile Solids				
30	VSS Destroyed - ppd			35,996	Line 9 x 0.46 + line 23 x 0.72
31	VSS Remaining - ppd			28,576	Line 27 - Line 30
32	Total Solids - ppd			47,675	Line 29 + Line 31
33	Dry Solids Concentration - %		3.00		
34	Volume - mgd	0.19055			Line 32 / (Line 33 x 8.34 x 1mil)

HISTORICAL WASTEWATER TREATMENT PLANT FLOWS & STRENGTHS

											Simple Average			Weighted Average			
Arithmetic Averages	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	All Data	Last 3 Years	Last 2 Years	All Data	Last 3 Years	Last 2 Years	Current Study
	BD-25	BD-25		BD-26a	BD-26a												
Northeast Plant																	
Influent Flow - mgd	171	185	160	176	177	162	182	156	174		171	171	165				170
Influent Suspended Solids -	226	217	232	232	234	220	219	243	232		228	231	238	228	231	237	231
Influent BOD - mg/l	155	142	156	172	156	162	142	161	149		155	151	155	155	150	155	150
Southwest Plant																	
Influent Flow - mgd	182	196	174	164	184	162	181	162	176		176	173	169				175
Influent Suspended Solids -	156	146	151	169	149	163	156	168	161		158	162	165	157	161	164	161
Influent BOD - mg/l	119	106	121	128	107	119	105	112	108		114	108	110	114	108	110	108
Southeast Plant																	
Influent Flow - mgd	76	89	81	83	92	86	76	77	80		82	78	79				90
Influent Suspended Solids -	140	144	166	154	136	149	130	141	142		145	138	142	144	138	142	138
Influent BOD - mg/l	108	102	106	104	95	102	116	113	106		106	112	110	106	112	109	112

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PLANT

Fixed Asset Listing as of date 6/30/2015

Range	Description	Page Number	Table
PlantInd	Index	Plant-1	
PLTFUNC	Plant Functions	Plant-2	
NEPA1	NE Plant Assets (Non-WPAP) as of 6/30/2015	Plant-3	
NEPA2	'NE Plant Assets (WPAP) as of 6/30/2015	Plant-4	
SWPA1	SW Plant Assets (Non-WPAP) as of 6/30/2015	Plant-5	
SWPA2	SW Plant Assets (WPAP) as of 6/30/2015	Plant-6	
SEPA1	SE Plant Assets (Non-WPAP) as of 6/30/2015	Plant-7	
SEPA2	SE Plant Assets (WPAP) as of 6/30/2015	Plant-8	
SPLTFNC	All Plants - Assets by Plant Function as of 6/30/2015	Plant-9	
SLOCID	All Locations - Total Assets by Location ID as of 6/30/2015	Plant-10	
XXXXX	PAGE NOT IN USE	Plant-11	
SFAL	Summary of Fixed Asset Listing Control Totals as of 6/30/2015	Plant-12	

Reference: ACCESS Data Base File, Fixed.mdb

Plant Function Description	Plant Function ID	Plant Function Description	Plant Function ID
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

Reference: ACCESS Data Base File, Fixed.mdb,

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 INFLUENTBARSCREEN	288,700	Projects added since the 1999 FAL.	
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	5,013,592		
2013	4	54	71005-1-54	0	72	DEMOL - 6 OLD DIGESTERS-NEWPCP-MECH	238,520		
1998	1	54	71007-1-54	0	81	POLYURETHANE SILICONEROOF	156,439		
2010	6	54	71007-2-54	0	81	**POLYURETHANE SILICONEROOF **	115		
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		70	General CON. FOR AERATION SYSTEM REHA	12,188,401		
2007	4	54	71033-1-54	0	70	GENERAL CON- AERATION SYTM REHAB- N	1,047,512		
2003	11	54	71035-1-54	0	66	REPL MECHBARSCREEN	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		78	ELECTICAL HVAC IMPROVEMENTS	226,005		
2004	5	54	71042-1-54	0	87	REHABFINALSEDTANKS	2,108,718		
2006	11	54	71043-1-54	0	92	UPGRADE SCADA SYTM PHASE I- NORTHE/	543,748		
2007	7	54	71044--54		66	REHAB. OF GRIT CHANNEL AERATION SYST	999,387		
2007	7	54	71045-1-54		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		66	Screenings Conveyor modifications	2,190,676		
2009	7	54	71050-1-54		66	Screenings Conveyor Modifications -Electrical	565,562		
2009	1	54	71053-1-54		91	Rehab of Pier 217	759,892		
2010	4	54	71054-1-54		89	R/R Replacement of DAF Floated Sludge Pumps &	1,327,802		
2010	2	54	71060-1-54		72	Gas Storage Tank Inspection and Bladder replacem	1,325,070		
2010	10	54	71061-1-54		71	Replace Existing Blower Building Switchgear	2,698,751		
2010	1	54	71062-1-54		85	Power Distribution System Study	589,603		
2007	3	54	71074-1-54		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	230,765		
1988	6	54	G683-1-54	0	86	ADDNLLIGHTING ATPRIM SED TNK	13,562		
1996	6	54	G684-1-54	0	67	GENCONVERSION-PSTO STORAGE B	48,789		
1996	6	54	G689-1-54	0	86	REHABOZONESYSIN PRIMSEDBA	30,001		

1997	6	54	G689-2-54	0	86	REHABOZONESYSIN PRIMSEDBA	374	
1996	6	54	G692-1-54	0	80	MODINCINERATORCONTROLROOM	19,098	
1996	6	54	G695-1-54	0	88	INSTLBARSCREENS-EFFLUENT CON	9,407	
1992	1	54	G698-1-54	0	69	ODOR CTRL&KNIFEGATE VALVES	607,667	
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	385,343	
1996	6	54	G719-2-54	0	66	NEWGRIT STORAGE	44,329	
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 PRIMSEDTANKS	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 PRIMSEDTANKS	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	728,272	
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 PRIMSEDTANKS	499,595	
1998	6	54	P1148-1-54	0	66	MODGRIT,SCREENINGS,&SCUM D	37,036	
2000	6	54	P1148-4-54	0	66	MODGRIT,SCREENINGS,SCUM DISP	139,018	Projects added since the 1999 FAL.
2002	6	54	P1148-5-54	0	66	MODGRIT,SCREENINGS,SCUM DISP	6,422	Projects added since the 1999 FAL.
2001	6	54	P1198-2-54	0	76	ENGDESIGN SERVSODHYPOCHLORI	400,189	Projects added since the 1999 FAL.
2004	6	54	P1198-4-54	0	76	ENGDESIGN SERVSODHYPOCHLORI	0	
2001	6	54	P1220-1-54	0	92	ENGSER-EVAL HVACEQUIPSLDTH	212,732	Projects added since the 1999 FAL.
2004	6	54	P1220-3-54	0	89	EVAL HVACEQUIPSLUD THICK BLD	310,276	
2002	6	54	P1225-4-54	0	92	ENGSERV-METCALF & EDDY	91,520	Projects added since the 1999 FAL.
2005	6	54	P1225-8-54	0	72	REPL SLUDGEGASPIPING	0	
2002	6	54	P1227-1-54	0	83	AERATION SYS REHAB,AIR PIPE,AP	659,588	Projects added since the 1999 FAL.
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'&apos	300,748	
2004	9	54	P1227-4-54	0	66		24,114	
2000	9	54	P1240-2-54	0	92	G&H-ADD''LENGDESIGN SERVIC	361,640	Projects added since the 1999 FAL.
1972	5	54	P-295-3-54	0	92	ENGR SERVICES	99,231	

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	20,402	
1980	1	54	P-325-1-54	0	92	ENGR SERVNEWPCP	2,510,000	
1990	6	54	P-325-1N-54	0	92	ENGR SERVICE - DETAILDISIGN	11,281,737	
1976	1	54	P-325-1NN-54	0	92	ENGR SERVICES-NEWWPC	550,000	
1974	2	54	P-325-2-54	0	92	DETAILED DSGNNEWPCP	450,000	
1991	6	54	P-325-2N-54	0	92	ENGR SERVICE - DETAILDESIGN	55,582	
1979	6	54	P-325-3-54	0	92	DETAIL DESIGN	1,825,000	
1992	6	54	P-325-3N-54	0	92	ENGR SERVICE - DETAILDESIGN	68,914	
1993	6	54	P-325-4-54	0	92	ENGR SERVICE - DETAILDESIGN	577,887	
1974	11	54	P-325-4N-54	0	92	DESIGN NEWPCP	450,000	
1997	6	54	P-325-5-54	0	92	ENGR SERVICE-DETAILDESIGN	130,038	
1997	6	54	P-325-6-54	0	92	ENGSERVICE-DETAIL DESIGN	113,557	
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	37,657	
1987	4	54	P-514-1-54	0	77	CPMSCHEDULING SERVICES	402,158	
1985	6	54	P-572-1-54	0	81	PLANSMAINTSHOP & REVIEWWARE	22,306	
1984	1	54	P-583-1-54	0	87	VALU ENGR-MODEXISTFINSEDTK	19,722	
1986	6	54	P-614-1-54	0	92	VALU ENGR-MODSLDG DGST&NU DEW	77,958	
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	19,873	
1989	3	54	P-690-1-54	0	73	MODIFY SLUDGEDEWATERING FAC	4,712	
1990	6	54	P-703-1-54	0	90	ENGR SERVSLDG TRANS & DOCKING	330,518	
1993	10	54	P-703-2-54	0	92	ENGR SERVSLDG TRANS & DOCKING	250,980	
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	81,923	
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	11,049	
1990	2	54	P-858-1-54	0	92	VALUEENGR MODIFYSLUDGE FACIL	12,675	
1997	6	54	P-861-1-54	0	72	FINALDESIGN 2 SLUDGEDISGSTRS	412,532	
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	ADDTO 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	26,189	
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	71007-2-54	0	81	**POLYURETHANE SILICONEROOF **	280	x
2008	7	54	71041-1-54	0	78	ELECTICAL HVAC IMPROVEMENTS	0	
2007	7	54	71045-1-54	0	91	REHAB. OF PIER 217 N. AT NORTHEAST WA	0	
2010	6	54	71049-1-54	0	66	Screenings Conveyor modifications	1,390	x
2009	7	54	71050-1-54	0	66	Screenings Conveyor Modifications -Electrical	0	
2009	1	54	71053-1-54	0	91	Rehab of Pier 217	0	
2010	4	54	71054-1-54	0	89	R/R Replacement of DAF Floated Sludge Pumps &	0	
2011	11	54	71059--54		92	UPGRADE SCADA SYTM PHASE I-NEWPCP	4,357,877	x
2010	2	54	71060-1-54	0	72	Gas Storage Tank Inspection and Bladder replacem	0	
2010	10	54	71061-1-54	0	71	Replace Existing Blower Building Switchgear	0	
2010	1	54	71062-1-54	0	85	Power Distribution System Study	0	
2013	5	54	71064--54		91	Barge Rehab-NEWPCP	2,723,952	x
2014	6	54	71065--54		81	R/R REPLACE EXISTING FST SET 1 RET SLU	6,169,129	x
2005	6	54	P1225-10-54	0	72	**REPL SLUDGEGASPIPING **	93,475	x
-	-	54		0	77	General Plant	4,524,234	x
TOTAL NE PLANT ASSETS (Non-WPAP)							149,332,056	x

Reference: ACCESS Data Base File, Fixed.mdb, and 0620BILL.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-PRELIN 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-MODITY AREATION 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 MODICICAT	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-FLN 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 PRO&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				
1992	6	54	N675-2-54	1	77	GEN CONST - ADM BLDG & MAINT F	112,498	‖	JRM (filed with PN 31416.0100 Miscellaneous Correspondence).				
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	77,137						
1977	5	54	SD-466-NE-1N-54	1	81	GAS MAIN PIKE ST	44,600						
1980	6	54	SD-466-NE-2-54	1	81	ADDITIONAL FRK HIGH LEVEL SEWR	3,464,213						
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)							270,402,970	x					
TOTAL NE PLANT ASSETS							419,735,026						

Reference: ACCESS Data Base File, Fixed.mdb,

Year	Month	Depot	Work Order	Non-WPAP	Plant Function ID	Description	Cost $		
1979	10	55	P-427-1-55	0	107	PROJ SCHEDULER-CONST	489,057	Verify	
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	start here
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	143,000		
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	67,923		
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	13,101		
1990	6	55	P-574-1-55	0	107	CONST MANAGEMENT SERVICES	688,388		
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	0	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 DISOLVED 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 INFFLUENT 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	240,551	
1997	4	55	P1098-1-55	0	107	DESIGN ANAL-SLUD LAGOON -REPAIR	15,612	
1998	6	55	P1125-1-55	0	118	REB HVAC-PRELIM TREAT BLDG	78,631	
1998	6	55	P1130-1-55	0	107	GEN SERV-SUPPL PWD RESOURCES	136,086	
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	37,036	
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	287,676	Projects added since the 1999 FAL.
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	8,810	Projects added since the 1999 FAL.
2001	6	55	P1220-2-55	0	121	ENG SER-EVAL HVAC EQUIP SLD TH	293,774	Projects added since the 1999 FAL.
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	407,805	Projects added since the 1999 FAL.
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	1,618	
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**	186,951	
2002	6	55	P1225-6-55	0	106	ENGSERV-METCALF & EDDY	183,042	
2005	6	55	P1326-1-55	0	114	NORTHSIDEHVAC INP,START-UPCE	2,033,348	
2005	3	55	P5103095-1-55	0	114	Repl Cable and Telephone Systems	767,723	
2005	3	55	P5109676-1-55	0	114	Inst New 25 Pair Cable	130,645	
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 T	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		107	MED AND LOW VOLTAGE SWITCHGR REPL	2,043,647	
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		124	WASTE GAS BURNER REHAB-SW	2,858,396
2013	7	55	73056-2-55		124	WASTE GAS BURNER REHAB-SW	113,769
2013	9	55	73057--55		118	replace 480v switchgear and 208v unit substation-p	1,208,793
2014	2	55	73059--55		113	install/sluice gate at effluent pumping station-swwp	98,876
2014	4	55	73068--55		107	NEW PERVIOUS FOR PARKING LOT-SWWPC	802,142
2010	4	55	75021--55	0	107	70th & Dicks-Rehab. Of Sluice Gat Chamber-Gen.	2,111,577
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
-	-	55		0	114	General Plant	3,557,317
TOTAL SW PLANT ASSETS (Non-WPAP)							155,104,281 x

Reference: ACCESS Data Base File, Fixed.mdb

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 SEDIMINTATION 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 SEDIMINTATION 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							331,024,209	

Reference: ACCESS Data Base File, Fixed.mdb

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 MOINTORING/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	99,231	
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	10,000	
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	3,431,285	
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 CONDUC-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	38,160	
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	13,074	Projects added since the 1999 FAL.	
2002	6	56	P1226-4-56	0	138	ENG SERV-HAZEN & SAWYER	41,715	Projects added since the 1999 FAL.	
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	321,344		
2003	1	56	72019-1-56	0	126	ELECT-REPL EXIST PRIMPUMPS	80,281		
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	29,253		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	68,223		
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	2,226,039		
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		
4019	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 SERVSODHYPOCHLORI**	331,966		
2005	6	56	P1225--56	0	140	**ENGSERV-SCUMREMOVAL **	13,357		
2005	6	56	P1226--56	0	127	**HAZEN-REPAIR GRITEJECTORS **	171,224		
2005	1	56	P1229--56	0	140	**RENEWSCUM TROUGHS FINAL TKS **	115,733		
2005	6	56	P1326--56	0	138	**BURNSENG-PRE-CONSTSERVICES **	45,185		
1978	9	56	P-357-2-56	0	138	**ADVICE,CONSULT&STUDI **	200,000		
2004	12	56	P4115136--56	0	138	**Commun and Control Telecom **	584,185		
2004	12	56	P5103093--56	0	138	**Telecom Commun Control **	7,813		

2004	11	56	P5108029--56	0	138	**Telecom Commun Control **	4,859	
1976	1	56	M-198-1-56	0	138	**TEST BORING-VARLOC **	16,052	
2013	4	56	72064--56	0	138	REPLACE SLUDGEPUMPS/SLUDGE GRINDE	1,131,861	
2013	4	56	72065--56	0	138	REPLACE SLUDGEPUMPS/SLUDGE GRINDE	500,958	
2014	4	56	72067--56	0	138	NEW POLYURETHANE/SILICONE ROOFING	440,759	
2014	3	56	72084--56	0	138	Install- solar photovoltaic energy generation system-	2,246,362	
2007	2	56	72046--56	0	138	TELEPHONE LINES - SEWPCP	29,253	
		56		0	138	General Plant	2,086,466	
TOTAL SE PLANT ASSETS (Non-WPAP)							66,398,275	x
							66,307,494	90,781

Reference: ACCESS Data Base File, Fixed.mdb

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 7'X9'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							203,532,298			

Plant Function Description	Plant Function ID Plant-2	NE Non-WPAP Cost Plant-3	NE WPAP Cost Plant-4	SW Non-WPAP Cost Plant-5	SW WPAP Cost Plant-6	SE Non-WPAP Cost Plant-7	SE WPAP Cost Plant-8	WPAP Fixed Asset Listing Total Cost Increased to Recognize Additional Engineering and Design Costs ("Soft Costs") NE-WPAP	SW-WPAP	SE-WPAP
								0.848 (a)	0.809 (a)	0.821 (a)
NE Grit Chamber	66	8,061,769	0	0	0	0	0	0	0	0
NE Pumping Station	67	464,097	0	0	0	0	0	0	0	0
NE Services Building	68	289,605	0	0	0	0	0	0	0	0
NE Meters, Vaults and Connection Sewers	69	874,038	7,758,041	0	0	0	0	9,148,633	0	0
NE Settling & Aeration Tanks	70	13,602,679	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	15,991,743	0	0
NE Sludge Digestion System	72	11,614,880	28,216,749	0	0	0	0	33,274,468	0	0
NE Sludge Dewatering	73	2,354,944	0	0	0	0	0	0	0	0
NE Lagoons	74	0	0	0	0	0	0	0	0	0
NE Locker Bldg.	75	0	0	0	0	0	0	0	0	0
NE Chlorination Facilities	76	5,177,632	0	0	0	0	0	0	0	0
NE Admin. Bldg. (b)	77	9,698,680	13,962,557	0	0	0	0	16,465,279	0	0
NE Heating Plant	78	3,451,199	0	0	0	0	0	0	0	0
NE Electrical Substation	79	1,119,930	0	0	0	0	0	0	0	0
NE Sludge Incinerators	80	1,522,125	0	0	0	0	0	0	0	0
NE Site	81	17,189,381	16,340,528	0	0	0	0	19,269,491	0	0
NE Sludge Residue Fusion Plant	82	0	0	0	0	0	0	0	0	0
NE Aeration Tank No. 1	83	1,085,307	31,618,289	0	0	0	0	37,285,718	0	0
NE Prelim. Treatment Bldg.	84	1,040,612	33,610,447	0	0	0	0	39,634,961	0	0
NE Elect. Bldg.	85	589,603	939,852	0	0	0	0	1,108,316	0	0
NE Primary Sedimentation Tanks	86	27,472,317	43,244,890	0	0	0	0	50,996,333	0	0
NE Final Sedimentation Tanks	87	5,431,195	20,953,278	0	0	0	0	24,709,054	0	0
NE Effluent Conduit	88	9,407	1,877,876	0	0	0	0	2,214,476	0	0
NE Sludge Thickener Bldg.	89	4,585,772	33,796,082	0	0	0	0	39,853,870	0	0
NE Sludge Transfer Station, Proc. & Loading Term.	90	837,262	20,038,560	0	0	0	0	23,630,377	0	0
NE Barges	91	6,063,689	4,484,823	0	0	0	0	5,288,706	0	0
NE Engineering, Design	92	24,097,181	0	0	0	0	0	0	0	0
SW Screen, Blower, Prim. Sludge PS, Grit	93	0	0	3,186,178	3,622,983	0	0	0	4,478,347	0
SW Grease Burner	94	0	0	1,881,393	0	0	0	0	0	0
SW Settling Tanks	95	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	10,956	0
SW Sludge Digestion	97	0	0	3,621,506	0	0	0	0	0	0
SW Belt Filter System	98	0	0	0	0	0	0	0	0	0
SW Chlorination Facilities	99	0	0	1,175,809	0	0	0	0	0	0
SW Office & Equip. Building	100	0	0	0	0	0	0	0	0	0
SW Sludge Disposal	101	0	0	0	0	0	0	0	0	0
SW Electrical Substation	102	0	0	4,312	37,351	0	0	0	46,169	0
SW Waste Gas Burner	103	0	0	0	0	0	0	0	0	0
SW Elevated Water Tank	104	0	0	95,617	301,439	0	0	0	372,607	0
SW Dewatering Facilities	105	0	0	0	0	0	0	0	0	0
SW General Improvements	106	0	0	8,086,725	85,803	0	0	0	106,061	0
SW Site	107	0	0	37,541,487	18,199,622	0	0	0	22,496,443	0
SW Compressor Bldg.	108	0	0	0	2,920,802	0	0	0	3,610,386	0
SW Aeration Tanks	109	0	0	676,633	12,831,828	0	0	0	15,861,345	0
SW Sedimentation Tanks	110	0	0	13,182,871	22,937,384	0	0	0	28,352,761	0
SW Electrical Bldg.	111	0	0	688,454	1,518,011	0	0	0	1,876,404	0
SW Oxygen Supply	112	0	0	3,077,124	11,035,428	0	0	0	13,640,826	0
SW Effluent PS	113	0	0	195,587	4,639,812	0	0	0	5,735,244	0
SW Admin. Bldg.	114	0	0	39,006,187	2,262,150	0	0	0	2,796,230	0
SW Shop & Maintenance Bldg.	115	0	0	230,918	2,650,056	0	0	0	3,275,718	0
SW Warehouse	116	0	0	961,394	1,554,864	0	0	0	1,921,958	0
SW Primary Sedimentation Tanks	117	0	0	13,893,200	8,712,494	0	0	0	10,769,461	0
SW Preliminary Treatment Building	118	0	0	4,487,335	18,594,577	0	0	0	22,984,644	0
SW Influent PS	119	0	0	461,414	4,946,279	0	0	0	6,114,066	0
SW Scum Concentration Bldg.	120	0	0	0	1,074,169	0	0	0	1,327,774	0
SW Sludge Thickener Bldg.	121	0	0	1,853,692	13,471,207	0	0	0	16,651,677	0
SW Sludge Digestion Facilities	122	0	0	3,664,817	36,102,364	0	0	0	44,625,913	0
SW Composting Facilities	123	0	0	989,190	0	0	0	0	0	0
SW Sludge Gas Facilities	124	0	0	8,543,297	8,412,442	0	0	0	10,398,569	0
SW Outfall Line	125	0	0	0	0	0	0	0	0	0
SE Main PS	126	0	0	0	0	319,440	719,180	0	0	875,981
SE Screen, Admin, Garage, Mach. Shop, Grit, Chmbrs	127	0	0	0	0	8,994,654	2,691,010	0	0	3,277,722
SE Settling Tanks & Flocculation Channel	128	0	0	0	0	3,921,595	0	0	0	0
SE Grease Bldg.	129	0	0	0	0	0	0	0	0	0
SE Blower & Primary Sludge PS	130	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	29,799,153	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	5,470,835	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	
		149,332,056	270,402,970	155,104,281	175,919,928	66,398,275	137,134,023	954,291,533	149,332,056	318,871,425	155,104,281	217,453,559	66,398,275	167,032,916	
			419,735,026		331,024,209		203,532,298	954,291,533		468,203,481		372,557,840		233,431,191	1,074,192,512
										Soft Costs Equal Difference in Totals =			$1,074,192,512 -	$954,291,533	119,900,979

(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).

Reference: ACCESS Data Base File, Fixed.mdb, and Sractch-1

Depot	Location	Sum Of Engineering Cost	Sum Of Construction Cost	Total
		$	$	$
0	Building & Related - Undetermined Location (a)	191,994,347	2,048,333,782	2,240,328,129
1	Building & Related - Belmont RWPS	315,148	3,793,891	4,109,039
2	Building & Related - Belmont FWPS	1,229,293	12,398,827	13,628,120
3	Building & Related - Belmont Filters	9,657,587	79,015,523	88,673,111
4		0	312,814	312,814
5	Building & Related - HS to Roxborough Expressway	0	398,929	398,929
6	Building & Related - Queen Lane RWPS	1,006,013	9,155,677	10,161,690
7	Building & Related - Queen Lane HS FWPS	2,785,594	33,786,968	36,572,562
8	Building & Related - Queen Lane Filters	7,522,622	89,606,813	97,129,434
11	Building & Related - Roxborough HS FWPS	387,287	5,533,023	5,920,310
12	Building & Related - Upper Roxborough Filters	91,871	919,755	1,011,626
13	Building & Related - Lower Roxborough Filters	5,621	60,325	65,946
14	Radios	0	7,298,174	7,298,174
15	Meters	0	75,015,097	75,015,097
17	Building & Related - Torressdale RWPS	596,629	4,404,022	5,000,651
18	Building & Related - Torresdale FWPS	709,090	10,412,855	11,121,945
19	Building & Related - Torresdale HS FWPS	9,772	4,281,701	4,291,473
20	Building & Related - Baxter Filters	7,394,124	151,027,177	158,421,301
22	Building & Related - Foxchase FWPS	464,560	4,014,978	4,479,539
23	Building & Related - Oak Lane FWPS	10,667	444,559	455,226
24	Building & Related - Oak Lane Reservoir	825,933	7,457,564	8,283,497
25	Building & Related - Lardner's Point FWPS	335,959	3,231,799	3,567,758
26	Building & Related - East Park FWPS	428,363	1,389,945	1,818,308
27	Building & Related - East Park Reservoir	1,429,545	14,705,312	16,134,857
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	4,236,203	4,525,980
32	Building & Related - Distribution	692,406	20,283,175	20,975,581
33	Building & Related - Automotive Garage	1,396,191	3,784,057	5,180,248
34	Building & Related - ARA Towers	343,253	7,863,327	8,206,580
35	Building & Related - Design Related	0	2,640,237	2,640,237
37		0	2,755,291	2,755,291
38		0	1,297,387	1,297,387
39	Building & Related - Fairmount Water Works	290,552	7,305,054	7,595,606
40	Building & Related - Meter Shop	242,313	1,978,388	2,220,701
41		0	628,426	628,426
42	Building & Related - Auto Repair Facility (Fox & Robts. Sts.)	360,603	630,480	991,083
43	Building & Related - Centralized Laboratory	1,419,407	19,336,779	20,756,186
44	Building & Related - Repair Shop	1,137	561,879	563,016
45	Building & Related - Building Maintenance	223,048	4,929,763	5,152,811
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	2,020,521	26,543,217	28,563,738
54	Building & Related - NE Treatment	26,913,120	392,821,907	419,735,026
55	Building & Related - SW Treatment	17,858,498	313,165,712	331,024,209
56	Building & Related - SE Treatment	14,502,781	188,938,735	203,441,517
57	Building & Related - Sewer Maintenance Headquarters Bldg.	547,824	3,393,779	3,941,604
58	Building & Related - Frankford Grit	0	0	0
59		0	130,457	130,457
60	Building & Related - Bank Street PS	8,476	41,808	50,284
61	Building & Related - Central Schuykill PS	1,041,528	9,898,591	10,940,120
62	Building & Related - Neill Drive PS	82,033	1,643,512	1,725,545
63	Building & Related - Mingo Creek PS	312,890	8,621,732	8,934,622
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	5,089,714	49,571,353	54,661,067
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	749,837	749,837
75	Building & Related - Rennard 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	4,095,073	4,474,880

81		0	1,066,017	1,066,017
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	1,826,425	2,192,048
92		0	7,068,588	7,068,588
94		0	483,608	483,608
95		0	1,999,026	1,999,026
	LTCP Infrastructure	1,417,342	35,661,465	37,078,807
	Total	303,810,003	3,698,083,738	4,001,893,741

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

Building & Related - Undetermined Location	205,918,769
Water Mains	702,723,168
Sewer Mains	1,331,686,193
Total -	2,240,328,129
Check -	2,240,328,129

Reference: ACCESS Data Base File, Fixed.mdb, and Sractch-1

Depot	Location Description	FY 2014 Fixed Asset Listing: Sum Of Construction Cost $	Sum Of Engineering Cost $	Total $	Categories of Common A&G Plant
1,000	Water Mains	628,731,447	73,991,721	702,723,168	
2,000	Sewer Mains	1,227,083,306	104,602,887	1,331,686,193	
0	Building & Related - Undetermined Location	192,519,029	13,399,740	205,918,769	
1	Building & Related - Belmont RWPS	3,793,891	315,148	4,109,039	
2	Building & Related - Belmont FWPS	12,398,827	1,229,293	13,628,120	
3	Building & Related - Belmont Filters	79,015,523	9,657,587	88,673,111	
4		312,814	0	312,814	
5	Building & Related - HS to Roxborough Expressway	398,929	0	398,929	
6	Building & Related - Queen Lane RWPS	9,155,677	1,006,013	10,161,690	
7	Building & Related - Queen Lane HS FWPS	33,786,968	2,785,594	36,572,562	
8	Building & Related - Queen Lane Filters	89,606,813	7,522,622	97,129,434	
11	Building & Related - Roxborough HS FWPS	5,533,023	387,287	5,920,310	
12	Building & Related - Upper Roxborough Filters	919,755	91,871	1,011,626	
13	Building & Related - Lower Roxborough Filters	60,325	5,621	65,946	
14	Radios	7,298,174	0	7,298,174	
15	Meters	75,015,097	0	75,015,097	
17	Building & Related - Torressdale RWPS	4,404,022	596,629	5,000,651	
18	Building & Related - Torresdale FWPS	10,412,855	709,090	11,121,945	
19	Building & Related - Torresdale HS FWPS	4,281,701	9,772	4,291,473	
20	Building & Related - Baxter Filters	151,027,177	7,394,124	158,421,301	
22	Building & Related - Foxchase FWPS	4,014,978	464,560	4,479,539	
23	Building & Related - Oak Lane FWPS	444,559	10,667	455,226	
24	Building & Related - Oak Lane Reservoir	7,457,564	825,933	8,283,497	
25	Building & Related - Lardner's Point FWPS	3,231,799	335,959	3,567,758	
26	Building & Related - East Park FWPS	1,389,945	428,363	1,818,308	
27	Building & Related - East Park Reservoir	14,705,312	1,429,545	16,134,857	
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	4,236,203	289,777	4,525,980	
32	Building & Related - Distribution	20,283,175	692,406	20,975,581	
33	Building & Related - Automotive Garage	3,784,057	1,396,191	5,180,248	
34	Building & Related - ARA Towers	7,863,327	343,253	8,206,580	
35	Building & Related - Design Related	2,640,237	0	2,640,237	
37	PC Equipment & Vehicles	2,755,291	0	2,755,291	
38	PC Equipment & Vehicles	1,297,387	0	1,297,387	
39	Building & Related - Fairmount Water Works	7,305,054	290,552	7,595,606	
40	Building & Related - Meter Shop	1,978,388	242,313	2,220,701	
41	Vehicles	628,426	0	628,426	
42	Building & Related - Auto Repair Facility (Fox & Robts. Sts.)	630,480	360,603	991,083	
43	Building & Related - Centralized Laboratory	19,336,779	1,419,407	20,756,186	
44	Building & Related - Repair Shop	561,879	1,137	563,016	
45	Building & Related - Building Maintenance	4,929,763	223,048	5,152,811	
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	26,543,217	2,020,521	28,563,738	
54	Building & Related - NE Treatment	392,821,907	26,913,120	419,735,026	
55	Building & Related - SW Treatment	313,165,712	17,858,498	331,024,209	
56	Building & Related - SE Treatment	188,938,735	14,502,781	203,441,517	
57	Building & Related - Sewer Maintenance Headquarters Bldg.	3,393,779	547,824	3,941,604	
58	Building & Related - Frankford Grit	0	0	0	
59		130,457	0	130,457	
60	Building & Related - Bank Street PS	41,808	8,476	50,284	
61	Building & Related - Central Schuykill PS	9,898,591	1,041,528	10,940,120	
62	Building & Related - Neill Drive PS	1,643,512	82,033	1,725,545	
63	Building & Related - Mingo Creek PS	8,621,732	312,890	8,934,622	
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	49,571,353	5,089,714	54,661,067	(26,531,834)
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	749,837	0	749,837	

Sewer Plant Including Sewer's Share of Common Plant Above and Land Not Included on This Page

Total Sewer Plant This Page		2,403,063,286
Plus NE WPAP Including "Soft Costs" (a)	Plant-9	318,871,425
Less NE WPAP Excluding "Soft Costs" (a)	Plant-9	(270,402,970)
Plus SW WPAP Including "Soft Costs" (a)	Plant-9	217,453,559
Less SW WPAP Excluding "Soft Costs" (a)	Plant-9	(175,919,928)
Plus SE WPAP Including "Soft Costs" (a)	Plant-9	167,032,916
Less SE WPAP Excluding "Soft Costs" (a)	Plant-9	(137,134,023)
Plus Sludge Management Including "Soft Costs" (a	Spltallo-3	34,770,375
Less Sludge Management Including "Soft Costs" (a	This Page	(54,661,067)
Sewer Plant Including "Soft Costs" (a)		2,503,073,574
Land Not Included Here But Included in Spltallo-5		
NE WPCP	Spltallo-2	913,000
SW WPCP	Spltallo-3	664,000
SE WPCP	Spltallo-4	151,000
Sewer Share of Water & Sewer A&G		124,625,348
General Plant Land To Be Included with Mains (Spltallo-5)	Spltallo-5	1,816,000
Subtotal Sewer Plant		2,631,242,922
Less Facilities Excluded as Not Used and Useful (See Footnotes (a) & (b) on Spltallo-2.)		(8,062,000)
Total Sewer Plant		2,623,180,922
Total Sewer Plant (Rounded)		2,623,181,000
Total Sewer Plant from Spltallo-5	Spltallo-5	2,648,555,000
Difference		25,374,000

(a) See footnote (a) on Plant-9 for an explanation of "soft costs."

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	4,095,073	379,808	4,474,880				
81	Vehicles	1,066,017	0	1,066,017				
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	1,826,425	365,623	2,192,048				
92	Vehicles	7,068,588	0	7,068,588				
94	Vehicles	483,608	0	483,608				
95	Vehicles	1,999,026	0	1,999,026				
	LTCP Infrastructure	35,661,465	1,417,342	37,078,807				
	Total	3,698,083,738	303,810,003	4,001,893,741				
	Water and Common A&G Total			1,464,893,236	Comparable total from WCOS08.XLS:	1,464,893,236	Difference =	0

SCOS15_17.XLS

SPLTALLO

Fixed Asset Listing as of date 6/30/2015

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 - Pa	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 - Pa	Spltallo-19	
SWReAllo8	SW Non-WPAP Sludge Disposal Facilities Allocated To NE and SE I	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	Whlsl 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 Southhampton 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	Sprngfield (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 2017

Line No.	Description	(1) Preliminary 6/30/2015 Plant in Service $1,000 Plant-9 Plant-12	(2) Allocated Cap. Int. and Cap. Fringe Ben. $1,000	(3) Final 6/30/2015 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 2017 Test Year Plant in Service $1,000
	WPCP (Non-Abatement)							
1	Frankford Grit Chamber	0	0	0		0	0	0
2	Plant Grit Chamber(a)	0	0	0		0	0	0
3	Pumping Station(a)	1,505	0	1,505		1,505	167	1,672
4	Settling and Aeration Tanks	46,506	0	46,506		46,506	5,161	51,667
5	Blower Bldg, Supernatant Tank Prim Sldge Hse & Scum Ejector Bldg	2,699	0	2,699		2,699	300	2,999
6	Sludge Digestion System	11,615	0	11,615		11,615	1,289	12,904
7	Lagoons	0	0	0		0	0	0
8	Sludge Dewatering	3,877	0	3,877		3,877	430	4,307
9	Centrifuge System (WO-79-2831)		0	0		0	0	0
10	Effluent Conduit	9	0	9		9	1	10
11	Chlorination Facilities	5,178	0	5,178		5,178	575	5,753
12	Aeration Tank No. 1	1,085	0	1,085		1,085	120	1,205
13	Sludge Thickener Building	4,586	0	4,586		4,586	509	5,095
14	Sludge Transfer Station	837	0	837		837	93	930
15	Subtotal	77,897	0	77,897	0	77,897	8,645	86,542
	Admin. & Gen. Facilities							
16	Admin. & Serv. Bldg.	9,988	0	9,988	0	9,988	1,108	11,096
17	Locker Bldg	0	0	0		0	0	0
18	Heating Plant	3,451	0	3,451		3,451	383	3,834
19	Electrical Substation	1,120	0	1,120		1,120	124	1,244
	Land & Site Preparation	Ref.B						
20	Land	913	0	913		913	101	1,014
21	Site(b)	13,510	0	13,510		13,510	1,499	15,009
22	Total Land & Site	14,423	0	14,423	0	14,423	1,600	16,023
23	Meter Vaults & Connecting Sewers	874	0	874		874	97	971
24	Engineering & Design	24,097	0	24,097		24,097	2,675	26,772
25	Subtotal A & G	53,953	0	53,953	0	53,953	5,987	59,940
26	Total WPCP (Non-WPAP)	131,850	0	131,850	0	131,850	14,632	146,482

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

Line 49 Less Line 20 (Land not included in PLANT)			449,807
Plus Total from Footnote (a)			8,062
Plus Total from Footnote (b)			0
Subtotal			457,869
Check from PLANT	464,524,838	/1,000 =	464,525
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			461,548
Check from Plant Worksheet: Plant-9	468,203,481	/1,000 =	468,203

BOX 2 - CWIP

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

	WPAP							
27	Engr, Serv, Design, Testing	0	0	0	0	0	0	0
28	Electrical Building	1,108	0	1,108		1,108	123	1,231
29	Aeration Tank #1	37,286	0	37,286		37,286	4,138	41,424
30	Site	19,269	0	19,269		19,269	2,138	21,407
31	Sludge Digestion	33,274	0	33,274		33,274	3,693	36,967
32	Sludge Residue Fusion Plant(a)	0	0	0		0	0	0
33	New Preliminary Trtmt Bldg	39,635	0	39,635		39,635	4,398	44,033
34	Chlorination	0	0	0		0	0	0
35	Primary Sedimentation Tanks	50,996	0	50,996		50,996	5,659	56,655
36	New Scum Disposal Facilities		0	0		0	0	0
37	New Sludge Thickener Building	39,854	0	39,854		39,854	4,423	44,277
38	New Final Sedimentation Tanks	24,709	0	24,709	0	24,709	2,742	27,451
39	Blower Building	15,992	0	15,992		15,992	1,775	17,767
40	Meter Vaults & Connecting Sewers	9,149	0	9,149		9,149	1,015	10,164
41	New Aeration Tanks		0	0		0	0	0
42	New Centrifuge Building		0	0		0	0	0
43	Effluent Conduit	2,214	0	2,214		2,214	246	2,460
44	Sludge Transfer Station	23,630	0	23,630		23,630	2,622	26,252
45	Sludge Cake Staging Pad		0	0		0	0	0
46	Loading Terminal/Barges	5,289	0	5,289		5,289	587	5,876
47	Administration Bldg. (c)	16,465	0	16,465	0	16,465	1,827	18,292
48	Total WPAP	318,870	0	318,870	0	318,870	35,386	354,256
49	TOTAL PLANT	450,720	0	450,720	0	450,720	50,018	500,738
			0					

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

	$
Plant Grit Chamber - 6/30/2015	8,062
Plant Grit Chamber - 6/30/89	0
Plant Grit Chamber	8,062
Pumping Station	
Sludge Residue Fusion Plant	
	8,062

(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 2017

Line No.	Description	(1) Preliminary 6/30/2015 Plant in Service $1,000 Plant-9 BOX 4	(2) Allocated Cap. Int. and Cap. Fringe Ben. $1,000	(3) Final 6/30/2015 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 Spltallo-5	(7) FY 2017 Test Year Plant in Service $1,000	(4) Test Yr CWIP Plus Wt. Add'ns to Plant in Service Less CI & FB $1,000 BOX 2
	WPCP (Non-Abatement)								
1	Screen, Blower, Primary Sludge Pump Sta. & Grit Chambers	8,135	0	8,135		8,135	903	9,038	0
2	Grease Burner	1,881	0	1,881	0	1,881	209	2,090	0
3	Sedimentation Tanks	27,076	0	27,076		27,076	3,005	30,081	0
4	Sludge Handling & Machine Shop	7,599	0	7,599		7,599	843	8,442	0
5	Sludge Digestion	7,286	0	7,286		7,286	809	8,095	0
6	Sludge Disposal	0	0	0	0	0	0	0	0
7	Belt Filter System	0	0	0		0	0	0	0
8	Centrifuge System		0	0		0	0	0	0
9	Outfall Line (SD-152-SW)		0	0		0	0	0	0
10	Chlorination Facilities	1,176	0	1,176		1,176	131	1,307	0
11	Dewatering Facilities	0	0	0		0	0	0	0
12	Aeration Tanks	677	0	677		677	75	752	0
13	Oxygen Supply	3,077	0	3,077		3,077	341	3,418	0
14	Effluent Pump Station	196	0	196		196	22	218	0
15	Sludge Thickener Building	1,854	0	1,854		1,854	206	2,060	0
16	Composting Facilities	989	0	989		989	110	1,099	0
17	Sludge Gas Facilities	8,543	0	8,543		8,543	948	9,491	0
18	Subtotal	68,489	0	68,489	0	68,489	7,602	76,091	0
	Admin. & Gen. Facilities								
19	Office & Gen. Facilities	0	0	0		0	0	0	0
20	Electrical Substation	693	0	693		693	77	770	0
21	Elevated Water Tank	96	0	96		96	11	107	0
22	General Improvements	47,093	0	47,093	0	47,093	5,226	52,319	0
	Land & Site Preparation	Ref. B							
23	Land	664	0	664		664	74	738	0
24	Site	37,541	0	37,541		37,541	4,166	41,707	0
25	Total Land & Site	38,205	0	38,205	0	38,205	4,240	42,445	0
26	Shop & Maintenance Building	231	0	231		231	24	255	
27	Warehouse	961	0	961		961	107	1,068	
28	Subtotal A & G	87,279	0	87,279	0	87,279	9,685	96,964	0
29	Total WPCP (Non-WPAP)	155,768	0	155,768	0	155,768	17,287	173,055	0
	WPAP								
30	Influent Pumping Station	6,114	0	6,114	0	6,114	679	6,793	0
31	Preliminary Treatment Bldg	27,463	0	27,463		27,463	3,048	30,511	0
32	Primary Sedimentation Tanks	10,769	0	10,769		10,769	1,195	11,964	0
33	Aeration Tanks	15,861	0	15,861		15,861	1,760	17,621	0
34	Oxygen Supply	13,641	0	13,641		13,641	1,514	15,155	0
35	Compressor Bldg	3,610	0	3,610		3,610	401	4,011	0
36	Final Tanks	28,353	0	28,353		28,353	3,187	31,540	0
37	Elevated Water Tank	373	0	373		373	41	414	0
38	Scum Concentration Bldg	1,328	0	1,328		1,328	147	1,475	0
39	Sludge Thickener Bldg	16,652	0	16,652		16,652	1,848	18,500	0
40	Sludge Digestion Facilities	44,637	0	44,637		44,637	4,954	49,591	0
41	Composting Facility	0	0	0		0	0	0	0
42	Effluent Pumping Station	5,735	0	5,735		5,735	636	6,371	0

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

Line 56 Less Line 23 (Land not includingass in PLANT)			407,328
Less Depot 68 included in line 56 (from BOX 4)			(34,770)
Subtotal			372,558
Less Mag. Flow Meter			0
Total			372,558
Check from Plant Worksheet:	Plant-9	372,557,840 /1,000 =	372,558

BOX 2 - CWIP

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

BOX 4 - COMPOSTING FACILITIES, SLUDGE DEWATERING, NEW CENTRIFUGES

	Per Fixed Asset Listing $	Fixed Asset Listing Times Plant-9 1/0.809 To Include ""Soft Costs" (a) $
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		10,399	1,154	11,553	0
45	Computer System		0	0		0	0	0	0
46	Admin. Bldg & General Improvements	2,902	0	2,902	0	2,902	322	3,224	0
47	Shop & Maintenance Bldg	3,276	0	3,276		3,276	364	3,640	0
48	Warehouse	1,922	0	1,922		1,922	213	2,135	0
49	Electrical Bldg	1,923	0	1,923		1,923	213	2,136	0
50	Site	22,496	0	22,496	0	22,496	2,497	24,993	0
51	New Centrifuges	11,603	0	11,603	0	11,603	1,288	12,891	0
52	Eng. Serv., Design, Testing		0	0	0	0	0	0	0
53	Dewatering Facilities	23,167	0	23,167	0	23,167	2,571	25,738	0
54	Grit & Ash Transfer Station		0	0		0	0	0	0
55	Total WPAP	252,224	0	252,224	0	252,224	27,991	280,256	0
56	TOTAL PLANT	407,992	0	407,992	0	407,992	45,278	453,311	0
	TEST VALUE		0						

BOX 3 - USED IN Spltallo-13

A&G Facilities	$ [Col. (7)]		
Sludge Thickener Bldg	18,500		
Total WPAP	280,256		
A&G:			
Computer System	0		
Administration Bldg	3,224		
Shop & Maint. Bldg	3,640		
Warehouse	2,135		
Electrical Bldg	2,136		
Site	24,993	TOTAL WPAP LESS A&G	244,128
Eng Serv, etc.	0	SLUDGE THICKENER BLDG	
		AS A % OF TOTAL WPAP	
Subtotal A&G	36,128	LESS A&G	7.5780%

==> A&G RELATED TO SLUDGE THICKENER BLDG:

7.58%	x	36,128	=	2,738

References:

SOUTHEAST WATER POLLUTION CONTROL TREATMENT PLANT INVESTMENT

Test Year 2017

Line No.	Description	(1) Preliminary 6/30/2015 Plant in Service $1,000 Plant-9	(2) Allocated Cap. Int. and Cap. Fringe Ben. $1,000	(3) Final 6/30/2015 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 Spltallo-5	(7) FY 2017 Test Year Plant in Service $1,000
	WPCP (Non-Abatement)							
1	Main Pumping Station	2,108	0	2,108		2,108	234	2,342
2	Screen, Admin., Garage, Machine Shop, Grit Chmbrs & Collecting Channel	8,995	0	8,995		8,995	998	9,993
3	Settling tanks & Floc. Channel	15,952	0	15,952		15,952	1,770	17,722
4	Grease Building	0	0	0		0	0	0
5	Blower & Prim. Sludge Pump. Sta.	0	0	0		0	0	0
6	Sludge Force Main	4,852	0	4,852		4,852	538	5,390
7	Main Effluent Conduit	551	0	551		551	61	612
8	Compressor Building	0	0	0		0	0	0
9	Subtotal	32,458	0	32,458	0	32,458	3,601	36,059
	Admin. & Gen. Facilities							
10	Electrical Substation			0		0	0	0
11	Storage Building	945	0	945		945	105	1,050
	Land & Site Preparation	Ref. B						
12	Land	151	0	151		151	17	168
13	Site	29,799	0	29,799		29,799	3,307	33,106
14	Total Land & Site	29,950	0	29,950	0	29,950	3,324	33,274
15	Other	0	0	0		0	1	1
16	Subtotal A & G	30,895	0	30,895	0	30,895	3,430	34,325
17	Total WPCP (Non WPAP)	63,353	0	63,353	0	63,353	7,031	70,384
	WPAP							
18	Scum Concentration Facilities	2,727	0	2,727		2,727	303	3,030
19	Influent Pump Station and Screen & Grit Chamber	24,149	0	24,149		24,149	2,680	26,829
20	Effluent Conduit	11,227	0	11,227		11,227	1,246	12,473
21	Compressor Bldg	9,604	0	9,604		9,604	1,066	10,670
22	Effluent Pump Station	12,487	0	12,487		12,487	1,386	13,873
23	Sludge Handling Facilities	0	0	0		0	0	0
24	Sludge Force Main	1,882	0	1,882		1,882	209	2,091
25	Primary Sedimentation	20,467	0	20,467		20,467	2,271	22,738
26	Aeration	22,431	0	22,431		22,431	2,489	24,920
27	Final Sedimentation	25,234	0	25,234		25,234	2,800	28,034
28	Site	40,742	0	40,742		40,742	4,521	45,263
29	Computer Systems		0	0		0	0	0
30	Switchgear		0	0		0	0	0
31	Storage Building	1,160	0	1,160		1,160	129	1,289
32	Admin. Complex		0	0		0	0	0
33	Yard		0	0		0	0	0
34	Grease Bldg	0	0	0		0	0	0
35	Eng. Serv., Design, Testing		0	0	0	0	0	0
36	Total WPAP	172,110	0	172,110	0	172,110	19,100	191,210
37	TOTAL PLANT	235,463	0	235,463	0	235,463	26,131	261,594
			0					
	TOTAL CAP INTEREST ALLOCATED TO NE, SW, SE		0					
			0					

#VALUE!

#VALUE! 235,312

Plus Collection Related

Subtotal			235,312
Less Mains included (a)		1,882,052 /1,000 =	(1,882)
Total			233,430
Check from Plant Worksheet:	Plant-9	233,431,191 /1,000 =	233,431

(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:
Additional Outside Engr. Services

0

Check

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

FY 2017 TEST YEAR PLANT IN SERVICE

Line No.	Description	(1) (b) Total PIS @ 6/30/2015 $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 2017 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 2017 Test Year Plant in Service Including Gen. Plant $1,000 (3) + (4)
1	Collection System - Mains (a)	1,358,368	0	1,358,368	1,816	1,360,184
2	- FHL Interceptor	3,679		3,679		3,679
3	Pumping	28,813		28,813	3,198	32,011
4	LTCP Investment	37,079		37,079		37,079
	Treatment					
	Non - WPAP					
5	Northeast (NE)	131,850	0	131,850	14,632	146,482
6	Southeast (SE)	63,353	0	63,353	7,031	70,384
7	Southwest (SW)	155,768	0	155,768	17,287	173,055
8	Frankford Grit Chamber	0		0	0	0
9	Total Non - WPAP	350,971	0	350,971	38,950	389,921
	WPAP					
10	Northeast (NE)	318,870	0	318,870	35,386	354,256
11	Southeast (SE)	172,110	0	172,110	19,100	191,210
12	Southwest (SW)	252,224	0	252,224	27,991	280,215
13	Total WPAP	743,204	0	743,204	82,477	825,681
14	Total Treatment	1,094,175	0	1,094,175	121,427	1,215,602
15	Subtotal All Above	2,522,114	0	2,522,114	126,441	2,648,555
16	Common A&G Investment Plant-12 & below	126,441		126,441		
17	Total Plant	2,648,555	0	2,648,555	126,441	2,648,555

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

BOX 1 - COLLECTIONS	$
Plant in Service at 6/30/2015	
Collections - Mains	
Sewer Maint. (Plant-10)	28,563,738
Other Collection	0
Mains, $1,331,686,193, Less Mains Included with SE WPCP, $1,882,052, see Spltallo-4	1,329,804,141
Subtotal	1,358,367,878
FHL Interceptor (Spltallo-2)	3,678,643
Pumping	28,813,460

BOX 3 - CWIP

Weighted Test Year Additions Plus CI and CFB:

PC-30 Construction (Sewer Portion Only)	0
xxxxxxxxxxxxxxx	
xxxxxxxxxxxxxxx	
xxxxxxxxxxxxxxx	
xxxxxxxxxxxxxxx	
xxxxxxxxxxxxxxx	
xxxxxxxxxxxxxxx	
xxxxxxxxxxxxxxx	
	0

BOX 4 - Land not included in previous files/worksheets

Description	Cost $1,000
Sewer Maintenance Yard	19
Frankford Grit	14
Central Schuylkill PS	10
Neill Dr PS	1
Ford Rd PS	1
42nd St PS	1
Mill Cr Flood Control	142
Frankford Cr Flood Control	477
2925 E. Castor Ave	703
NE Corner Fox & Roberts	448
**********	
**********	
**********	
**********	
Total - Include with General Plant, Mains	1,816

Table_WW-20

ALLOCATION OF TEST YEAR INVESTMENT FOR THE NORTHEAST WATER POLLUTION CONTROL PLANT TO FUNCTIONAL COST COMPONENTS
Test Year 2017

			(1)	(2)	(3)	(4)	(5)	(6)	
				Retail, Abington, Bensalem, Bucks Cty W&SA, Lower Moreland, and Lower Southampton	Retail, Abington, Bensalem, Bucks Cty W&SA, Cheltenham, Lower Moreland, and Lower Southampton				
Line No.	Description	Col. (1) Reference	Total Investment	Capacity	Volume	Capacity	Suspended Solids	BOD	Basis of Allocation
			$1,000	$1,000	$1,000	$1,000	$1,000	$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	6,745		6,745				100% Volume
3	Pumping Station	Spltallo-2, Ln 3	1,672			1,672			100% Capacity
4	Aeration Facilities	Spltallo-7	22,289					22,289	100% BOD
5	Primary Sludge Pumps	Spltallo-7	1,496				1,496		100% SS
6	Scum Ejectors	Spltallo-7	235				235		100% SS
7	Effluent Conduit	Spltallo-2, Ln 10	10			10			100% Capacity
8	Final Sedimentation Basins	Spltallo-7	11,731		11,731				100% Volume
9	Recirculation Pumps	Spltallo-7	2,112		2,112				100% Volume
10	Digesters	Spltallo-7	22,962				17,222	5,740	75% SS - 25% BOD
11	Sludge Dewatering	Spltallo-2,Ln 8 & Spltallo-20,Ln 171	4,307				3,230	1,077	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			0			100% Capacity
15	Chlorination Facilities	Spltallo-2, Ln 11	5,753			5,753			100% Capacity
16	Aeration Tank No. 1	Spltallo-2, Ln 12	1,205					1,205	100% BOD
17	Sludge Thickener Building	Spltallo-2, Ln 13	5,095				2,548	2,547	50% SS - 50% BOD
18	Sludge Transfer Station	Spltallo-2, Ln 14	930				698	232	75% SS - 25% BOD
19	Subtotal All Above		86,542	0	20,588	7,435	25,429	33,090	
	Administrative and General Facilities								
20	Administrative and General Plant	Spltallo-2, Ln 25 - Ln 20	58,926						
21	Land	Spltallo-2, Ln 20	1,014						
22	Subtotal		59,940	1,641	15,605	6,398	16,204	20,092	Allocated based on TOTAL NE WPCP INVESTMENT
23	Total Non-Water Pollution Abatement Program Facilities		146,482	1,641	36,193	13,833	41,633	53,182	

	WATER POLLUTION ABATEMENT PROGRAM FACILITIES									
24	New Preliminary Treatment Building	Spltallo-2, Ln 33	44,033	11,008		33,025			100% Capacity	
25	Primary Sedimentation Tanks Modifications	Spltallo-2, Ln 35	56,655		56,655				100% Volume	
26	Blower Building	Spltallo-2, Ln 39	17,767					17,767	100% BOD	
27	Aeration Tank No. 1	Spltallo-2, Ln 29	41,424					41,424	100% BOD	
28	New Aeration Tanks	Spltallo-2, Ln 41	0					0	100% BOD	
29	Chlorination Facilities	Spltallo-2, Ln 34	0			0			100% Capacity	
30	New Scum Disposal Facilities	Spltallo-2, Ln 36	0				0		100% SS	
31	New Sludge Thickener Building	Spltallo-2, Ln 37	44,277				22,139	22,138	50% SS - 50% BOD	
32	Effluent Conduits	Spltallo-2, Ln 43	2,460			2,460			100% Capacity	
33	New Final Sedimentation Tanks	Spltallo-2, Ln 38	27,451		27,451				100% Volume	
34	Sludge Digestion System Modifications	Spltallo-2, Ln 31	36,967				27,725	9,242	75% SS - 25% BOD	
35	Sludge Residue Fusion Plant	Spltallo-2, Ln 32	0				0	0	75% SS - 25% BOD	
36	New Centrifuge Building	Spltallo-2, Ln 42	0				0	0	75% SS - 25% BOD	
37	Composting Facilities	Spltallo-18,Ln 119	0				0	0	75% SS - 25% BOD	
38	Sludge Dewatering	Spltallo-18,Ln 145	12,424				9,318	3,106	75% SS - 25% BOD	
39	Frankford High Level Interceptor	(a)	0			0			100% Capacity	(a) Included under Collection System on Spltallo-5.
40	Sludge Transfer Station	Spltallo-2, Ln 44	26,252				19,689	6,563	75% SS - 25% BOD	
41	Loading Terminal/Barges	Spltallo-2, Ln 46	5,876				4,407	1,469	75% SS - 25% BOD	
42	Sludge Cake Staging Pad	Spltallo-2, Ln 45	0				0	0	75% SS - 25% BOD	
43	Subtotal		315,586	11,008	84,106	35,485	83,278	101,709		
44	Admin. and General Facilit	Spltallo-2,Ln48-[Spltallo-6,Lns 24-36+Lns 39-42]	51,094	1,399	13,302	5,453	13,812	17,128	Allocated based on TOTAL NE WPCP INVESTMENT	
45	Adjustment for Joint Use Facilities	Spltallo-18, Ln 123 & 149	1,839				1,379	460		
46	Total Water Pollution Abatement Program facilities		368,519	12,407	97,408	40,938	98,469	119,297		
47	TOTAL NORTHEAST WPC PLANT BOOK COST		515,001	14,048	133,601	54,771	140,102	172,479		
48	Less Federal Grants	Spltallo-8	226,940	7,870	60,125	25,366	60,536	73,043		
49	ADJUSTED TOTAL NORTHEAST WPC PLANT INVESTMENT		288,061	6,178	73,476	29,405	79,566	99,436		
			100.0%	2.1%	25.5%	10.2%	27.6%	34.5%		

BOX 1 - CALCULATION OF LINES 2, 4 THRU 6, 8 THRU 10

	EPA Cost Estimates $1,000 PN 12065.100, Co(?) 15.3	Spread TY Plant on EPA Estimates
Primary Sedimentation Basins	1,150	6,745
Aeration Facilities		
Aeration Basins	2,500	
Blower Bldg. (Blowers)	1,300	
Subtotal	3,800	22,289
Primary Sludge Pumps		
Primary Basins Sludge Pumps	190	
"B" Road Pump Station	65	
Subtotal	255	1,496
Blower Bldg. (Scum Ejectors)	40	235
Final Sedimentation Basins	2,000	11,731
Recirculation Pumps		
Blower Bldg (Return Sludge Pmps)	260	
"C" Road Pump Station	100	
Subtotal	360	2,112
Digesters		
Sludge Digestion	3,900	
Blower Bldg (Supernatant Tanks)	15	
Subtotal	3,915	22,962
TOTAL	11,520	67,570
TEST YEAR PLANT	Spltallo-2	
Settling and Aeration Tanks	51,667	
Blower Bldg, Supernatant Tank Prim		
Sldge Hse & Scum Ejector Bldg	2,999	
Sludge Digestion System	12,904	
TOTAL	67,570	0

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

Line No.	Description	Col. (1) Reference	(1) Average Test Year Net Book Cost (a) $1,000	(2) Total Federal Grants @ 70.3% Percent $1,000 (1)*70.3% (d)	(3) Retail,Abington, Bensalem, Bucks Cty W&SA, Lower Moreland, and Lower Southampton - Capacity $1,000	(4) Retail, Abington, Bensalem, Bucks Cty W&SA, Cheltenham, Lower Moreland, and Lower Southampton Volume $1,000	(5) Capacity $1,000	(6) Suspended Solids $1,000	(7) BOD $1,000	Basis of Allocation
	WATER POLLUTION ABATEMENT PROGRAM FACILITIES									
1	New Preliminary Treatment Building	Spltallo-2, Ln 33	39,635	27,863	6,966		20,897			100% Capacity
2	Primary Sedimentation Tanks Modifications	Spltallo-2, Ln 35	50,996	35,850		35,850				100% Volume
3	Blower Building	Spltallo-2, Ln 39	15,992	11,242					11,242	100% BOD
4	Aeration Tank No. 1	Spltallo-2, Ln 29	37,286	26,212					26,212	100% BOD
5	New Aeration Tanks	Spltallo-2, Ln 41	0	0					0	100% BOD
6	Chlorination Facilities	Spltallo-2, Ln 34	0	0			0			100% Capacity
7	New Scum Disposal Facilities	Spltallo-2, Ln 36	0	0				0		100% SS
8	New Sludge Thickener Building	Spltallo-2, Ln 37	39,854	28,017				14,009	14,008	50% SS - 50% BOD
9	Effluent Conduits	Spltallo-2, Ln 43	2,214	1,556			1,556			100% Capacity
10	New Final Sedimentation Tanks	Spltallo-2, Ln 38	24,709	17,370		17,370				100% Volume
11	Sludge Digestion System Modifications	Spltallo-2, Ln 31	33,274	23,392				17,544	5,848	75% SS - 25% BOD
12	Sludge Residue Fusion Plant	Spltallo-2, Ln 32	0	0				0	0	75% SS - 25% BOD
13	New Centrifuge Building	Spltallo-2, Ln 42	0	0				0	0	75% SS - 25% BOD
14	Composting Facilities(b)	Spltallo-18, Ln 107	0	0				0	0	75% SS - 25% BOD
15	Sludge Dewatering(b)	Spltallo-19, Ln 133	11,183	7,996				5,997	1,999	75% SS - 25% BOD
16	Frankford High Level Interceptor	Spltallo-6, Ln 39	0	0			0			100% Capacity
17	Sludge Transfer Station	Spltallo-2, Ln 44	23,630	16,612				12,459	4,153	75% SS - 25% BOD
18	Loading Terminal/Barges	Spltallo-2, Ln 46	5,289	3,718				2,789	929	75% SS - 25% BOD
19	Sludge Cake Staging Pad	Spltallo-2, Ln 45	0	0				0	0	75% SS - 25% BOD
20	Subtotal		284,062	199,828	6,966	53,220	22,453	52,798	64,391	
21	Admin. and Gen'l Facilities									
22	Receiving 3% Federal Grants (e)	3%	9,514	285	10	76	32	75	92	
23	All Other	(Spltallo-2,Lns 27,28,30,40,47) - Ln22	36,477	25,643	894	6,829	2,881	6,775	8,264	
24	Total Admin. and Gen'l Facilities		45,991	25,928	904	6,905	2,913	6,850	8,356	
25	Adjust. for Joint Use Facili	Spltallo-18, Ln 111 & Spltallo-19 Ln 137	1,656	1,184				888	296	
26	Total Water Poll. Abatement Prog. Facilities		331,709	226,940	7,870	60,125	25,366	60,536	73,043	
				226,940	Check					

(a) Excludes allocated fringe benefits, capitalized interest, and general plant.
(b) Includes allocated portion of SWWPCP facilities.
(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-21

ALLOCATION OF TEST YEAR INVESTMENT FOR THE SOUTHWEST WATER POLLUTION CONTROL PLANT TO FUNCTIONAL COST COMPONENTS
Test Year 2017

Line No.	Description	Col. (1) Reference		(1) Total Investment $1,000	(2) Retail - Capacity $1,000	(3) Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), and Upper Darby: 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	Spltallo-3	Ln 1	9,038	9,038					100% Capacity	
2	Sludge Digestion Facilities	Spltallo-21	Ln 195	5,459				3,983	1,476	75% SS - 25% BOD	
3	Sludge Disposal Facilities	Spltallo-20	Ln 173	0				0	0	75% SS - 25% BOD	
4	Scum Incineration	Spltallo-3	Ln 2	2,090				2,090		100% SS	SS/BOD 210
5	Outfall Line	Spltallo-3	Ln 9	0			0			100% Capacity	
6	Settling Tanks	Spltallo-3	Ln 3	30,081		30,081				100% Volume	
7	Sludge Handling	Spltallo-3	Ln 4	8,442				6,332	2,110	75% SS - 25% BOD	
8	Chlorination Facilities	Spltallo-3	Ln 10	1,307			1,307			100% Capacity	
9	Dewatering Facilities	Spltallo-3	Ln 11	0				0	0	75% SS - 25% BOD	
10	Aeration Tanks	Spltallo-3	Ln 12	752					752	100% BOD	
11	Oxygen Supply	Spltallo-3	Ln 13	3,418					3,418	100% BOD	
12	Effluent Pump Station	Spltallo-3	Ln 14	218			218			100% Capacity	
13	Sludge Thickener Building	Spltallo-3	Ln 15	2,060				1,030	1,030	50% SS - 50% BOD (a)	
14	Composting Facilities	Spltallo-3	Ln 16	1,099				824	275	75% SS - 25% BOD (a)	
15	Sludge Gas Facilities	Spltallo-3	Ln 17	9,491				7,118	2,373	75% SS - 25% BOD (a)	
16	Subtotal			73,455	9,038	30,081	1,525	21,377	11,434		
	Administrative and General Facilities										
17	Administrative and General Plant	Spltallo-3	Ln 28 - Ln 23	96,226							
18	Land	Spltallo-3	Ln 23	738							
19	Subtotal			96,964	5,753	26,740	12,345	26,433	25,693	Allocated based on TOTAL SW WPCP INVESTMENT	
20	Adjustment for Joint Use Facilities	Spltallo-20, Ln 176 & Spltallo-21 Ln 198		(3,359)				(2,661)	(698)		
21	Total Non-Water Pollution Abatement Program Facilities			167,060	14,791	56,821	13,870	45,149	36,429		

	WATER POLLUTION ABATEMENT PROGRAM FACILITIES										
22	Influent Pumping Station	Spltallo-3	Ln 30	6,793	6,793					100% Capacity	
23	Preliminary Treatment Building	Spltallo-22	Ln 217	26,075			26,075			100% Capacity (a)	
24	Primary Sedimentation Tanks	Spltallo-3	Ln 32	11,964		11,964				100% Volume	
25	Aeration Tanks	Spltallo-3	Ln 33	17,621					17,621	100% BOD	SS/BOD 210
26	Oxygen Supply System	Spltallo-3	Ln 34	15,155					15,155	100% BOD	SS/BOD 210
27	Compressor Building	Spltallo-3	Ln 35	4,011					4,011	100% BOD	SS/BOD 210
28	Final Tanks	Spltallo-3	Ln 36	31,540		31,540				100% Volume	SS/BOD 210
29	Scum Concentration Building	Spltallo-3	Ln 38	1,475				1,475		100% SS	SS/BOD 210
30	Sludge Thickener Building	Spltallo-13	Ln 17	13,490				6,745	6,745	50% SS - 50% BOD (a)	
31	Sludge Digestion Facilities	Spltallo-15	Ln 43	33,444				24,402	9,042	75% SS - 25% BOD (a)	
32	Effluent Pumping Station	Spltallo-3	Ln 42	6,371			6,371			100% Capacity	
33	Outfall Conduit	Spltallo-3	Ln 43	0			0			100% Capacity	
34	New Centrifuges	Spltallo-17	Ln 95	8,694				6,343	2,351	75% SS - 25% BOD (a)	
35	Composting Facilities	Spltallo-18	Ln 121	0				0	0	75% SS - 25% BOD (a)	
36	Sludge Dewatering	Spltallo-19	Ln 147	8,949				6,712	2,237	75% SS - 25% BOD (a)	
37	Sludge Gas Facilities	Spltallo-16	Ln 69	7,791				5,685	2,106	75% SS - 25% BOD (a)	
38	Grit & Ash Transfer Station	Spltallo-23	Ln 243	0			0			100% Capacity (a)	
39	Subtotal			193,373	6,793	43,504	32,446	51,362	59,268		
40	Admin. and Gen'l. Facilities	See note (b)		36,542	2,168	10,077	4,652	9,962	9,683	Allocated based on TOTAL SW WPCP INVESTMENT	
41	Adjust. for Joint Use Facilities	See note (c)		(7,451)			(656)	(5,061)	(1,734)		
42	Total Water Pollution Abatement Program Facilities			222,464	8,961	53,581	36,442	56,263	67,217		
43	TOTAL SOUTHWEST WPC PLANT BOOK COST			389,524	23,752	110,402	50,312	101,412	103,646		
44	Less Federal Grants	Spltallo-10		142,878	5,189	33,199	24,361	35,973	44,156		
45	ADJUSTED TOTAL SOUTHWEST WPC PLANT INVESTMENT			246,646	18,563	77,203	25,951	65,439	59,490		
				246,646	Check						
				100.00%	7.5%	31.3%	10.5%	26.5%	24.1%		

(a) Reflects weighting due to joint use facilities.
(b) Spltallo-3, Lns 45..50, 52
(c) Spltallo-13, Lns 20,46,72,98,123,124,149,150
and Spltallo-22 & Spltallo-23, Lns 220 and 246

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

Line No.	Description	Col. (1) Reference	(1) Average Test Year Net Book Cost (a) $1,000	(2) Total Federal Grants @ 71.5% Percent $1,000 (1)*71.5% (g)	(3) Retail - Capacity $1,000	(4) Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), and Upper Darby: Volume $1,000	(5) Capacity	(6) Suspended Solids	(7) BOD	Basis of Allocation	
	WATER POLLUTION ABATEMENT PROGRAM FACILITIES										
1	Influent Pumping Station	Spltallo-3, Ln 30	6,114	4,372	4,372					100% Capacity	
2	Preliminary Treatment Building (b)	Spltallo-22 Ln203	23,470	16,781			16,781			100% Capacity (d)	
3	Primary Sedimentation Tanks	Spltallo-3, Ln 32	10,769	7,700		7,700				100% Volume	
4	Aeration Tanks	Spltallo-3, Ln 33	15,861	11,341					11,341	100% BOD	SS/BOD 210
5	Oxygen Supply System	Spltallo-3, Ln 34	13,641	9,753					9,753	100% BOD	SS/BOD 210
6	Compressor Building	Spltallo-3, Ln 35	3,610	2,581					2,581	100% BOD	SS/BOD 210
7	Final Tanks	Spltallo-3, Ln 36	28,353	20,272		20,272				100% Volume	SS/BOD 210
8	Scum Concentration Building	Spltallo-3, Ln 38	1,328	950				950		100% SS	SS/BOD 210
9	Sludge Thickener Building (b)	Spltallo-13,Ln 4	12,142	8,682				4,341	4,341	50% SS - 50% BOD (d)	
10	Sludge Digestion Facilities (b)	Spltallo-15,Ln 30	30,103	21,523				15,704	5,819	75% SS - 25% BOD (d)	
11	Effluent Pumping Station	Spltallo-3, Ln 42	5,735	4,101			4,101			100% Capacity	
12	Outfall Conduit	Spltallo-3, Ln 43	0	0			0			100% Capacity	
13	New Centrifuges (b)	Spltallo-17,Ln 82	7,825	5,595				4,082	1,513	75% SS - 25% BOD (d)	
14	Composting Facilities (b)	Spltallo-18,Ln 108	0	0				0	0	75% SS - 25% BOD (d)	
15	Sludge Dewatering (b)	Spltallo-19,Ln 134	8,055	5,759				4,319	1,440	75% SS - 25% BOD (d)	
16	Sludge Gas Facilities (b)	Spltallo-16, Ln 56	7,013	5,014				3,658	1,356	75% SS - 25% BOD (d)	
17	Grit and Ash Transfer Station (b)	Spltallo-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		
				142,878	Check						

(a) Excludes allocated fringe benefits, capitalized interest and general plant.
(b) Includes allocated portion of SWWPCP facilities.
(c) Prior to adjustment for allocated portion of SWWPCP A&G.
(d) Reflects weighting due to joint use facilities.
(e) Spltallo-3, Lns 45..50, 52, Cols (1) + (4)
(f) Spltallo-13, Ln 8; Spltallo-15, Ln 34; Spltallo-16 Ln 60; Spltallo-17, Ln 86; Spltallo-18, Lns 111 & 112; Spltallo-19, Lns 137 & 138; Spltallo-22, Ln 208; and Spltallo-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-22

ALLOCATION OF TEST YEAR INVESTMENT FOR THE SOUTHEAST WATER POLLUTION CONTROL PLANT TO FUNCTIONAL COST COMPONENTS
Test Year 2017

BOX 1 - CHECK OF TOTAL TREATMENT PLANT

	Spltallo-2,3,4	Spltallo-6,9,11
	$	$
NE WPCP	500,738	515,001
SW WPCP	453,311	389,524
SE WPCP	261,594	311,118
Total	1,215,643	1,215,643
Error		0

Line No.	Description	Col. (1) Reference	(1) Total Investment $1,000	(2) Volume $1,000	(3) Capacity $1,000	(4) Suspended Solids $1,000	(5) BOD $1,000	Basis of Allocation	
			Retail and Springfield (Wyndmoor)						
	NON-WATER POLLUTION ABATEMENT PROGRAM FACILITIES								
1	Main Pumping Station	Spltallo-4, Ln 1	2,342		2,342			100% Capacity	
2	Grit Chambers	Spltallo-4, Ln 2	9,993		9,993			100% Capacity	
3	Grease Building	Spltallo-4, Ln 4	0			0		100% SS	
4	Outfall Line	Spltallo-4, Ln 7	612		612			100% Capacity	
5	Sludge Digestion Facilities	Spltallo-21,Ln 194	2,636			2,088	548	75% SS - 25% BOD	
6	Sludge Disposal Facilities	Spltallo-20,Ln 172	0			0	0	75% SS - 25% BOD	
7	Settling Tanks & Floc. Channel	Spltallo-4, Ln 3	17,722	17,722				100% Volume	
8	Compressor Building	Spltallo-4, Ln 8	0				0	100% BOD	
9	Sludge Force Main	Spltallo-4, Ln 6	5,390			4,043	1,347	75% SS - 25% BOD	
10	Subtotal		38,695	17,722	12,947	6,131	1,895		
	Administrative and General Facilities								
11	Administrative and General Plant	Spltallo-4,Ln 16 - Spltallo-11, Ln 12	34,157						
12	Land	Spltallo-4, Ln 12	168						
13	Subtotal		34,325	10,625	10,945	5,523	7,232	Allocated based on TOTAL SE WPCP INVESTMENT	
14	Adjustment for Joint Use Facilities	Spltallo-20,Ln 176 & Spltallo-21, Ln 198	3,359			2,661	698		
15	Total Non-Water Pollution Abatement Program Facilities		76,379	28,347	23,892	14,315	9,825		
	WATER POLLUTION ABATEMENT PROGRAM FACILITIES								
16	Influent Pump. Stat. and Screen & Grit Chamber	Spltallo-4, Ln 19	26,829		26,829			100% Capacity	
17	Primary Sedimentation Tanks	Spltallo-4, Ln 25	22,738	22,738				100% Volume	
18	Compressor Building	Spltallo-4, Ln 21	10,670				10,670	100% BOD	
19	Air Supply Facilities	Spltallo-4, Ln 26	24,920				24,920	100% BOD	
20	Final Sedimentation	Spltallo-4, Ln 27	28,034	28,034				100% Volume	
21	Effluent Pumping Station	Spltallo-4, Ln 22	13,873		13,873			100% Capacity	
22	Effluent Conduit	Spltallo-4, Ln 20	12,473		12,473			100% Capacity	
23	Scum Concentration Facilities	Spltallo-4, Ln 18	3,030			3,030		100% SS	
24	Grease Building	Spltallo-4, Ln 34	0			0		100% SS	
25	Sludge Handling Facilities	Spltallo-4, Ln 23	0			0	0	75% SS - 25% BOD	
26	Sludge Force Main	Spltallo-4, Ln 24	2,091			1,568	523	75% SS - 25% BOD	
24a	Preliminary Treatment Bldg.	Spltallo-22, Ln216	4,436		4,436			100% Capacity (a)	x
27	Sludge Thickeners	Spltallo-13, Ln 16	5,010			2,505	2,505	50% SS - 50% BOD (a)	
28	Sludge Digesters	Spltallo-15, Ln 42	16,147			12,791	3,356	75% SS - 25% BOD (a)	
29	Sludge Disposal Facilities	Spltallo-17, Ln 94	4,197			3,325	872	75% SS - 25% BOD (a)	
30	Composting Facilities	Spltallo-18, Ln 120	0			0	0	75% SS - 25% BOD (a)	
31	Sludge Dewatering	Spltallo-19, Ln 146	4,365			3,274	1,091	75% SS - 25% BOD (a)	
29a	Grit and Ash Transfer Station	Spltallo-23, Ln242	0		0			100% Capacity (a)	x
32	Sludge Gas Facilities	Spltallo-16, Ln 68	3,762			2,980	782	75% SS - 25% BOD (a)	
33	Subtotal		182,575	50,772	57,611	29,473	44,719		
34	Admin. and Gen'l. Facilities	Spltallo-4, Ln 36 - Spltallo-11, Lns 16...26	46,552	14,410	14,844	7,491	9,807	Allocated based on TOTAL SE WPCP INVESTMENT	
35	Adjustment for Joint Use Facilities	See note (b)	5,612		656	3,682	1,274		
36	Total Water Pollution Abatement Program Facilities		234,739	65,182	73,111	40,646	55,800		
37	TOTAL SOUTHEAST WPC PLANT BOOK COST		311,118	93,529	97,003	54,961	65,625		
38	Less Federal Grants	Spltallo-12	147,804	39,873	45,761	26,049	36,121		
39	ADJUSTED TOTAL SOUTHEAST WPC PLANT INVESTMENT		163,314	53,656	51,242	28,912	29,504		
			163,314	check					
			100.00%	32.9%	31.4%	17.7%	18.1%		

(a) Reflects weighting due to joint use facilities.
72, 98, 124, and 150, Spltallo-22 Ln 220 and Spltallo-23 Ln 246.

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

Line No.	Description	Col. (1) Reference	(1) Average Test Year Net Book Cost (a) $1,000	(2) Total Federal Grants @ 69.6% Percent $1,000 (1)*69.6% (g)	(3) Retail and Springfield (Wyndmoor) Volume $1,000	(4) Capacity $1,000	(5) Suspended Solids $1,000	(6) BOD $1,000	Basis of Allocation
	WATER POLLUTION ABATEMENT PROGRAM FACILITIES								
1	Influent Pump. Sta. & Screen & Grit Chamber	Spltallo-4, Ln 19	24,149	16,808		16,808			100% Capacity
2	Primary Sedimentation Tanks	Spltallo-4, Ln 25	20,467	14,245	14,245				100% Volume
3	Compressor Building	Spltallo-4, Ln 21	9,604	6,684				6,684	100% BOD
4	Air Supply Facilities	Spltallo-4, Ln 26	22,431	15,612				15,612	100% BOD
5	Final Sedimentation	Spltallo-4, Ln 27	25,234	17,563	17,563				100% Volume
6	Effluent Pumping Station	Spltallo-4, Ln 22	12,487	8,691		8,691			100% Capacity
7	Effluent Conduit	Spltallo-4, Ln 20	11,227	7,814		7,814			100% Capacity
8	Scum Concentration Facilities	Spltallo-4, Ln 18	2,727	1,898			1,898		100% SS
9	Grease Building	Spltallo-4, Ln 34	0	0			0		100% SS
10	Sludge Handling Facilities	Spltallo-4, Ln 23	0	0			0	0	75% SS - 25% BOD
11	Sludge Force Main	Spltallo-4, Ln 24	1,882	1,310			983	327	75% SS - 25% BOD
11a	Preliminary Treatment Bldg. (b)	Spltallo-22, Ln 202	3,993	2,855		2,855			100% Capacity (d)
12	Sludge Thickeners(b)	Spltallo-13, Ln 3	4,510	3,224			1,612	1,612	50% SS - 50% BOD (d)
13	Sludge Digesters(b)	Spltallo-15, Ln 29	14,534	10,392			8,232	2,160	75% SS - 25% BOD (d)
14	Sludge Disposal Facilities(b)	Spltallo-17, Ln 81	3,778	2,701			2,140	561	75% SS - 25% BOD (d)
15	Composting Facilities(b)	Spltallo-18, Ln 107	0	0			0	0	75% SS - 25% BOD (d)
16	Sludge Dewatering(b)	Spltallo-19, Ln 133	3,929	2,809			2,107	702	75% SS - 25% BOD (d)
16a	Grit and Ash Transfer Station	Spltallo-23, Ln 228	0	0		0			100% Capacity (d)
17	Sludge Gas Facilities(b)	Spltallo-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 fringe benefits, capitalized interest and general plant.
(b) Includes allocated portion of SWWPCP facilities.
(c) Prior to adjustment for allocated portion of SWWPCP A&G.
(d) Reflects weighting due to joint use facilities.
(e) Spltallo-4, Lns 28..33, 35
(f) Spltallo-13, Lns 8, 34, 60, 86, 112, and 138; Spltallo-22 Ln 208, and Spltallo-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) Total Investment $1,000 (2) + (3)	(2) Suspended Solids $1,000	(3) BOD $1,000	Basis of Allocation
	WPAP Plant - Sludge Thickener Facilities					
1	Book Cost Before Allocated A&G (a)		Spltallo-3, Ln 39 18,500	9,250	9,250	50% SS - 50% BOD
2	Book Cost Subject to Federal Grant		Spltallo-3, Ln 39 16,652	8,326	8,326	50% SS - 50% BOD
3	Estimated Federal Grant - %		71.5%	71.5%	71.5%	Spltallo-10
4	Estimated Federal Grant		11,906	5,953	5,953	Ln 2 x Ln 3
5	Net Book Cost Before Alloc. A&G		6,594	3,297	3,297	Ln 1 - Ln 4
6	A&G Facilities(a)		Spltallo-3, BOX 3 2,738	1,369	1,369	50% SS - 50% BOD
7	A&G subject to Federal Grant(b)		Spltallo-3, BOX 3 2,465	(Same calc. using data from col. (1) + (4)) 1,233	1,232	50% SS - 50% BOD
8	Estimated Federal Grant - % (c)		71.5%	71.5%	71.5%	Spltallo-10
9	Estimated Federal Grant		1,762	881	881	Ln 7 x Ln 8
10	Net A&G Facilities (a)		976	488	488	Ln 6 - Ln 9
11	Net Book Cost including A&G (a)		7,570	3,785	3,785	Ln 5 + Ln 10
12	Percent Allocable to:	NEWPCP		0.00%	0.00%	BOX 3
13		SEWPCP		27.08%	27.08%	BOX X
14		SWWPCP		72.92%	72.92%	BOX X
	Book Cost Before Allocated A&G					
15	Allocated to:	NEWPCP	0	0	0	Ln 1 x Ln 12
16		SEWPCP	5,010	2,505	2,505	Ln 1 x Ln 13
17		SWWPCP	13,490	6,745	6,745	Ln 1 x Ln 14
18	Total (a)		18,500	9,250	9,250	
	A&G					
19	Allocated to:	NEWPCP	0	0	0	Ln 6 x Ln 12
20		SEWPCP	742	371	371	Ln 6 x Ln 13
21		SWWPCP	1,996	998	998	Ln 6 x Ln 14
22	Total (a)		2,738	1,369	1,369	
	Federal Grants(excluding A&G)					
23	Allocated to:	NEWPCP	0	0	0	Ln 4 x Ln 12
24		SEWPCP	3,224	1,612	1,612	Ln 4 x Ln 13
25		SWWPCP	8,682	4,341	4,341	Ln 4 x Ln 14
26	Total (b)		11,906	5,953	5,953	

Book Cost Applicable to Federal Grants

		(4) Total Investment $1,000 (5)+(6)	(5) Suspended Solids $1,000		(6) BOD $1,000	
Allocated to:	NEWPCP	0	0	Col (2) Ln 2 x Ln 12	0	Col (3) Ln 2 x Ln 12
	SEWPCP	4,510	2,255	Ln 2 x Ln 13	2,255	Ln 2 x Ln 13
	SWWPCP	12,142	6,071	Ln 2 x Ln 14	6,071	Ln 2 x Ln 14
Total (a)		16,652	8,326		8,326	

A&G Applicable to Federal Grants

Allocated to:	NEWPCP	0	0	Ln 7 x Ln 12	0	Ln 7 x Ln 12
	SEWPCP	668	334	Ln 7 x Ln 13	334	Ln 7 x Ln 13
	SWWPCP	1,797	899	Ln 7 x Ln 14	898	Ln 7 x Ln 14
Total (a)		2,465	1,233		1,232	

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	
SEWPCP	65,000	27.08%
SWWPCP	175,000	72.92%
Total	240,000	100.00%

Federal Grants - A&G

				Col (2)		Col (3)
Allocated to:	NEWPCP	0	0	Ln 9 x Ln 12	0	Ln 9 x Ln 12
	SEWPCP	478	239	Ln 9 x Ln 13	239	Ln 9 x Ln 13
	SWWPCP	1,284	642	Ln 9 x Ln 14	642	Ln 9 x Ln 14
Total (b)		1,762	881		881	

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

CHECK:	Total A & G	Fed Grant A & G	A & G CI & FB
WPAP Plant - Sludge Thickener Facilities	2,738	2,465	273
WPAP Plant - Sludge Digestion	7,339	6,607	732
WPAP Plant - Sludge Gas Facilities	1,710	1,539	171
WPAP Plant - Sludge Disposal Facilities (Centrifuges)	1,908	1,717	191
WPAP Plant - Composting Facilities	0	0	0
WPAP Plant - Dewatering Facilities	3,809	3,429	380
Non-WPAP Plant - Sludge Disposal Facilities (Disposal, Belt Filter, Centrifuge)	0	0	0
Non-WPAP Plant - Digesters	10,316	na	10,316
Total A&G Allocated to shared facilities	27,820	15,757	12,063
Total A&G	36,128		
Percent of total A&G	77.00%		
Total Non-A&G Facilities Shared Facilities	126,368		
Total Non-A&G Facilities	244,128		
	51.76%		

	WPAP Plant - Sludge Digestion		(1) Total Investment (2) +(3)	(2) Suspended Solids	(3) BOD	Basis of Allocation
			Spltallo-3, Ln 40			
27	Book Cost Before Allocated A&G (a)		49,591	37,193	12,398	75% SS - 25% BOD
			Spltallo-3, Ln 40			
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%	Spltallo-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		17,676	13,257	4,419	Ln 27 - Ln 30
			Spltallo-3,BOX 3	(Same calc using Sludge Digest. Fac.)		
32	A&G Facilities(a)		7,339	5,504	1,835	75% SS - 25% BOD
			Spltallo-3,BOX 3	(Same calc using Sludge Digest Fac, cols (1)+(4))		
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%	Spltallo-10
35	Estimated Federal Grant		4,724	3,543	1,181	Ln 33 x Ln 34
36	Net A&G Facilities (a)		2,615	1,961	654	Ln 32 - Ln 35
37	Net Book Cost including ass. A&G (a)		20,291	15,218	5,073	Ln 31 + Ln 36
38	Percent Allocable to:	NEWPCP		0.00%	0.00%	BOX 3
39		SEWPCP		34.39%	27.07%	BOX 3
40		SWWPCP		65.61%	72.93%	BOX 3
	Book Cost Before Allocated A&G					
41	Allocated to:	NEWPCP	0	0	0	Ln 27 x Ln 38
42		SEWPCP	16,147	12,791	3,356	Ln 27 x Ln 39
43		SWWPCP	33,444	24,402	9,042	Ln 27 x Ln 40
44	Total (a)		49,591	37,193	12,398	
	A&G					
45	Allocated to:	NEWPCP	0	0	0	Ln 32 x Ln 38
46		SEWPCP	2,390	1,893	497	Ln 32 x Ln 39
47		SWWPCP	4,949	3,611	1,338	Ln 32 x Ln 40
48	Total (a)		7,339	5,504	1,835	
	Federal Grants (excluding A&G)					
49	Allocated to:	NEWPCP	0	0	0	Ln 30 x Ln 38
50		SEWPCP	10,392	8,232	2,160	Ln 30 x Ln 39
51		SWWPCP	21,523	15,704	5,819	Ln 30 x Ln 40
52	Total (b)		31,915	23,936	7,979	

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

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

BOX 3 - BOD & SS ALLOCATIONS BETWEEN PLANTS

REF: BD-28b, WESTON Letter Dated 9-1-93 -
Facilities common to all plants (Sludge Dewatering & Composting):

	SS BD-28b	BOD BD-28b
NEWPCP	0.4827	0.4827
SEWPCP	0.1696	0.1696
SWWPCP	0.3477	0.3477

Facilities common to SE and SW only:

	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%
SWWPCP	169,000	149,500	243,750	74,750	65.61%	72.93%
Total	269,000	205,000	371,500	102,500	100.00%	100.00%

				Col (2)		Col (3)
Federal Grants - A&G						
Allocated to:	NEWPCP	0	0	Ln 35 x Ln 38	0	Ln 35 x Ln 38
	SEWPCP	1,538	1,218	Ln 35 x Ln 39	320	Ln 35 x Ln 39
	SWWPCP	3,186	2,325	Ln 35 x Ln 40	861	Ln 35 x Ln 40
Total (b)		4,724	3,543		1,181	

			(1)	(2)	(3)		(4)	(5)		(6)	
			Total Investment	Suspended Solids	BOD	Basis of Allocation	Total Investment	Suspended Solids		BOD	
	WPAP Plant - Sludge Gas Facilities		(2) +(3)				$1,000	$1,000		$1,000	
			Spltallo-3, Ln 44				(5)+(6)				
53	Book Cost Before Allocated A&G (a)		11,553	8,665	2,888	75% SS - 25% BOD					
			Spltallo-3, Ln 44								
54	Book Cost Subject to Federal Grant		10,399	7,799	2,600	75% SS - 25% BOD					
55	Estimated Federal Grant - %		71.5%	71.5%	71.5%	Spltallo-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		4,118	3,089	1,029	Ln 53 - Ln 56					
			Spltallo-3,BOX 3	(Same calc using Sludge Gas Fac)							
58	A&G Facilities(a)		1,710	1,283	427	75% SS - 25% BOD					
			Spltallo-3,BOX 3	(Same calc using Sludge Gas Fac, cols (1)+(4))							
59	A&G subject to Federal Grant(b)		1,539	1,154	385	75% SS - 25% BOD					
60	Estimated Federal Grant - % (c)		71.5%	71.5%	71.5%	Spltallo-10					
61	Estimated Federal Grant		1,100	825	275	Ln 59 x Ln 60					
62	Net A&G Facilities (a)		610	458	152	Ln 58 - Ln 61					
63	Net Book Cost includingass A&G (a)		4,728	3,547	1,181	Ln 57 + Ln 62					
64	Percent Allocable to:	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		Col (2)		Col (3)
67	Allocated to:	NEWPCP	0	0	0	Ln 53 x Ln 64	Allocated to: NEWPCP	0	0	Ln 54 x Ln 64	0 Ln 54 x Ln 64
68		SEWPCP	3,762	2,980	782	Ln 53 x Ln 65	SEWPCP	3,386	2,682	Ln 54 x Ln 65	704 Ln 54 x Ln 65
69		SWWPCP	7,791	5,685	2,106	Ln 53 x Ln 66	SWWPCP	7,013	5,117	Ln 54 x Ln 66	1,896 Ln 54 x Ln 66
70	Total (a)		11,553	8,665	2,888		Total (a)	10,399	7,799		2,600
	A&G						A&G Applicable to Federal Grants				
71	Allocated to:	NEWPCP	0	0	0	Ln 58 x Ln 64	Allocated to: NEWPCP	0	0	Ln 59 x Ln 64	0 Ln 59 x Ln 64
72		SEWPCP	557	441	116	Ln 58 x Ln 65	SEWPCP	501	397	Ln 59 x Ln 65	104 Ln 59 x Ln 65
73		SWWPCP	1,153	842	311	Ln 58 x Ln 66	SWWPCP	1,038	757	Ln 59 x Ln 66	281 Ln 59 x Ln 66
74	Total (a)		1,710	1,283	427		Total (a)	1,539	1,154		385
	Federal Grants(excluding A&G)						Federal Grants - A&G		Col (2)		Col (3)
75	Allocated to:	NEWPCP	0	0	0	Ln 56 x Ln 64	Allocated to: NEWPCP	0	0	Ln 61 x Ln 64	0 Ln 61 x Ln 64
76		SEWPCP	2,421	1,918	503	Ln 56 x Ln 65	SEWPCP	358	284	Ln 61 x Ln 65	74 Ln 61 x Ln 65
77		SWWPCP	5,014	3,658	1,356	Ln 56 x Ln 66	SWWPCP	742	541	Ln 61 x Ln 66	201 Ln 61 x Ln 66
78	Total (b)		7,435	5,576	1,859		Total (b)	1,100	825		275

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

			(1)	(2)	(3)				(4)	(5)		(6)	
			Total Investment	Suspended Solids	BOD	Basis of Allocation			Total Investment	Suspended Solids		BOD	
	WPAP Plant - Sludge Disposal Facilities (Centri		(2) +(3)						$1,000	$1,000		$1,000	
			Spltallo-3, Ln 51						(5)+(6)				
79	Book Cost Before Allocated A&G (a)		12,891	9,668	3,223	75% SS - 25% BOD							
			Spltallo-3, Ln 51										
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%	Spltallo-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		4,595	3,446	1,149	Ln 79 - Ln 82							
			Spltallo-3, BOX 3	(Same calc using Sludge Disp Fac)									
84	A&G Facilities(a)		1,908	1,431	477	75% SS - 25% BOD							
			Spltallo-3, BOX 3	(Same calc using Sludge Disp Fac, cols (1)+(4))									
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%	Spltallo-10							
87	Estimated Federal Grant		1,228	921	307	Ln 85 x Ln 86							
88	Net A&G Facilities (a)		680	510	170	Ln 84 - Ln 87							
89	Net Book Cost includingass A&G (a)		5,275	3,956	1,319	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							
	Book Cost Before Allocated A&G						Book Cost Applicable to Federal Grants				Col (2)		Col (3)
93	Allocated to:	NEWPCP	0	0	0	Ln 79 x Ln 90	Allocated to:	NEWPCP	0	0	Ln 80 x Ln 90	0	Ln 80 x Ln 90
94		SEWPCP	4,197	3,325	872	Ln 79 x Ln 91		SEWPCP	3,778	2,993	Ln 80 x Ln 91	785	Ln 80 x Ln 91
95		SWWPCP	8,694	6,343	2,351	Ln 79 x Ln 92		SWWPCP	7,825	5,709	Ln 80 x Ln 92	2,116	Ln 80 x Ln 92
96	Total (a)		12,891	9,668	3,223		Total (a)		11,603	8,702		2,901	
	A&G						A&G Applicable to Federal Grants						
97	Allocated to:	NEWPCP	0	0	0	Ln 84 x Ln 90	Allocated to:	NEWPCP	0	0	Ln 85 x Ln 90	0	Ln 85 x Ln 90
98		SEWPCP	621	492	129	Ln 84 x Ln 91		SEWPCP	559	443	Ln 85 x Ln 91	116	Ln 85 x Ln 91
99		SWWPCP	1,287	939	348	Ln 84 x Ln 92		SWWPCP	1,158	845	Ln 85 x Ln 92	313	Ln 85 x Ln 92
100	Total (a)		1,908	1,431	477		Total (a)		1,717	1,288		429	
	Federal Grants (excluding A&G)						Federal Grants - A&G				Col (2)		Col (3)
101	Allocated to:	NEWPCP	0	0	0	Ln 82 x Ln 90	Allocated to:	NEWPCP	0	0	Ln 87 x Ln 90	0	Ln 87 x Ln 90
102		SEWPCP	2,701	2,140	561	Ln 82 x Ln 91		SEWPCP	400	317	Ln 87 x Ln 91	83	Ln 87 x Ln 91
103		SWWPCP	5,595	4,082	1,513	Ln 82 x Ln 92		SWWPCP	828	604	Ln 87 x Ln 92	224	Ln 87 x Ln 92
104	Total (b)		8,296	6,222	2,074		Total (b)		1,228	921		307	

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

			(1)	(2)	(3)		(4)	(5)		(6)	
			Total Investment	Suspended Solids	BOD	Basis of Allocation	Total Investment	Suspended Solids		BOD	
	WPAP Plant - Composting Facilities		(2) +(3)				$1,000 (5)+(6)	$1,000		$1,000	
			Spltallo-3, Ln 41								
105	Book Cost Before Allocated A&G (a)		0	0	0	75% SS - 25% BOD					
			Spltallo-3, Ln 41								
106	Book Cost Subject to Federal Grant		0	0	0	75% SS - 25% BOD					
107	Estimated Federal Grant - %		71.5%	71.5%	71.5%	Spltallo-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					
			Spltallo-3, BOX 3	(Same calc using Sludge Compost Fac)							
110	A&G Facilities(a)		0	0	0	75% SS - 25% BOD					
			Spltallo-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%	Spltallo-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 includingass A&G (a)		0	0	0	Ln 109 + Ln 114					
116	Percent Allocable to:	NEWPCP		48.27%	48.27%	BOX 3					
117		SEWPCP		16.96%	16.96%	BOX 3					
118		SWWPCP		34.77%	34.77%	BOX 3					
	Book Cost Before Allocated A&G						Book Cost Applicable to Federal Grants		Col (2)		Col (3)
119	Allocated to:	NEWPCP	0	0	0	Ln 105 x Ln 116	Allocated to: NEWPCP	0	0	Ln 106 x Ln 116	0 .n 106 x Ln 116
120		SEWPCP	0	0	0	Ln 105 x Ln 117	SEWPCP	0	0	Ln 106 x Ln 117	0 .n 106 x Ln 117
121		SWWPCP	0	0	0	Ln 105 x Ln 118	SWWPCP	0	0	Ln 106 x Ln 118	0 .n 106 x Ln 118
122	Total (a)		0	0	0		Total (a)	0	0		0
	A&G						A&G Applicable to Federal Grants				
123	Allocated to:	NEWPCP	0	0	0	Ln 110 x Ln 116	Allocated to: NEWPCP	0	0	Ln 111 x Ln 116	0 .n 111 x Ln 116
124		SEWPCP	0	0	0	Ln 110 x Ln 117	SEWPCP	0	0	Ln 111 x Ln 117	0 .n 111 x Ln 117
125		SWWPCP	0	0	0	Ln 110 x Ln 118	SWWPCP	0	0	Ln 111 x Ln 118	0 .n 111 x Ln 118
126	Total (a)		0	0	0		Total (a)	0	0		0
	Federal Grants (excluding A&G)						Federal Grants - A&G		Col (2)		Col (3)
127	Allocated to:	NEWPCP	0	0	0	Ln 108 x Ln 116	Allocated to: NEWPCP	0	0	Ln 113 x Ln 116	0 .n 113 x Ln 116
128		SEWPCP	0	0	0	Ln 108 x Ln 117	SEWPCP	0	0	Ln 113 x Ln 117	0 .n 113 x Ln 117
129		SWWPCP	0	0	0	Ln 108 x Ln 118	SWWPCP	0	0	Ln 113 x Ln 118	0 .n 113 x Ln 118
130	Total (b)		0	0	0		Total (b)	0	0		0

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

			(1)	(2)	(3)				(4)	(5)		(6)	
			Total Investment	Suspended Solids	BOD	Basis of Allocation			Total Investment	Suspended Solids		BOD	
	WPAP Plant - Dewatering Facilities		(2) +(3)						$1,000	$1,000		$1,000	
			Spltallo-3, Ln 53						(5)+(6)				
131	Book Cost Before Allocated A&G (a)		25,738	19,304	6,434	75% SS - 25% BOD							
			Spltallo-3, Ln 53										
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%	Spltallo-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		9,174	6,881	2,293	Ln 131 - Ln 134							
			Spltallo-3, BOX 3	(Same calc using Sludge Dewat Fac)									
136	A&G Facilities(a)		3,809	2,857	952	75% SS - 25% BOD							
			Spltallo-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%	Spltallo-10							
139	Estimated Federal Grant		2,452	1,839	613	Ln 137 x Ln 138							
140	Net A&G Facilities (a)		1,357	1,018	339	Ln 136 - Ln 139							
141	Net Book Cost includingass A&G (a)		10,531	7,899	2,632	Ln 135 + Ln 140							
142	Percent Allocable to:	NEWPCP		48.27%	48.27%	BOX 3							
143		SEWPCP		16.96%	16.96%	BOX 3							
144		SWWPCP		34.77%	34.77%	BOX 3							
	Book Cost Before Allocated A&G						Book Cost Applicable to Federal Grants				Col (2)		Col (3)
145	Allocated to:	NEWPCP	12,424	9,318	3,106	Ln 131 x Ln 142	Allocated to:	NEWPCP	11,183	8,387	Ln 132 x Ln 142	2,796	.n 132 x Ln 142
146		SEWPCP	4,365	3,274	1,091	Ln 131 x Ln 143		SEWPCP	3,929	2,947	Ln 132 x Ln 143	982	.n 132 x Ln 143
147		SWWPCP	8,949	6,712	2,237	Ln 131 x Ln 144		SWWPCP	8,055	6,041	Ln 132 x Ln 144	2,014	.n 132 x Ln 144
148	Total (a)		25,738	19,304	6,434		Total (a)		23,167	17,375		5,792	
	A&G						A&G Applicable to Federal Grants						
149	Allocated to:	NEWPCP	1,839	1,379	460	Ln 136 x Ln 142	Allocated to:	NEWPCP	1,656	1,242	Ln 137 x Ln 142	414	.n 137 x Ln 142
150		SEWPCP	646	485	161	Ln 136 x Ln 143		SEWPCP	581	436	Ln 137 x Ln 143	145	.n 137 x Ln 143
151		SWWPCP	1,324	993	331	Ln 136 x Ln 144		SWWPCP	1,192	894	Ln 137 x Ln 144	298	.n 137 x Ln 144
152	Total (a)		3,809	2,857	952		Total (a)		3,429	2,572		857	
	Federal Grants (excluding A&G)						Federal Grants - A&G				Col (2)		Col (3)
153	Allocated to:	NEWPCP	7,996	5,997	1,999	Ln 134 x Ln 142	Allocated to:	NEWPCP	1,184	888	Ln 139 x Ln 142	296	.n 139 x Ln 142
154		SEWPCP	2,809	2,107	702	Ln 134 x Ln 143		SEWPCP	416	312	Ln 139 x Ln 143	104	.n 139 x Ln 143
155		SWWPCP	5,759	4,319	1,440	Ln 134 x Ln 144		SWWPCP	852	639	Ln 139 x Ln 144	213	.n 139 x Ln 144
156	Total (b)		16,564	12,423	4,141		Total (b)		2,452	1,839		613	

(a) Includes allocated fringe benefits, capitalized interest, and general plant.
(b) Excludes allocated fringe 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	Book Cost Before Allocated A&G (a)		0	0	0	75% SS - 25% BOD
			Input			
158	Book Cost Subject to Federal Grant		0	0	0	75% SS - 25% BOD
159	Estimated Federal Grant - %		71.5%	71.5%	71.5%	Spltallo-10
160	Estimated Federal Grant (c)		0	0	0	Ln 158 x Ln 159
161	Net Book Cost Before Alloc. A&G		0	0	0	Ln 157 - Ln 160
			Spltallo-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	A&G Facilities(a)		0	0	0	75% SS - 25% BOD
163	A&G subject to Federal Grant (b)		na			
			0	0	0	75% SS - 25% BOD
164	Estimated Federal Grant - % (c)		71.5%	71.5%	71.5%	Spltallo-10
165	Estimated Federal Grant		0	0	0	Ln 162 x Ln 164
166	Net A&G Facilities (a)		0	0	0	Ln 162 - Ln 165
167	Net Book Cost includingass A&G (a)		0	0	0	Ln 161 + Ln 166
168	Percent Allocable to:	NEWPCP		0.00%	0.00%	BOX 3
169		SEWPCP		34.39%	27.07%	BOX 3
170		SWWPCP		65.61%	72.93%	BOX 3
			(1)	(2)	(3)	
	Book Cost Before Allocated A&G			(1)*.75	(1)-(2)	
171	Allocated to:	NEWPCP	0	0	0	BOX 1
172		SEWPCP	0	0	0	BOX 1
173		SWWPCP	0	0	0	BOX 1
174	Total (a)		0	0	0	
	A&G					
175	Allocated to:	NEWPCP	0	0	0	Ln 162 x Ln 168
176		SEWPCP	0	0	0	Ln 162 x Ln 169
177		SWWPCP	0	0	0	Ln 162 x Ln 170
178	Total (a)		0	0	0	

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

BOX 1 - SPLIT OF BOOK COSTS BEFORE ALLOCATION OF A&G

Book costs consist of):	Spltallo-3				$1,000
Sludge Disposal (Ln 6)					0
Belt Filter System (Ln 7)					0
Centrifuge System (Ln 8)					0
Subtotal					0
CWIP Sludge disposal costs included in subtotal are					0
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
	BOD	SS	Weighted		0
All Other costs:	0.25	0.75			
NEWPCP	0.00%	0.00%	0.00%		0
SEWPCP	34.39%	27.07%	28.90%		0
SWWPCP	65.61%	72.93%	71.10%		0
					0
Total Allocated Costs:					
NEWPCP		0.00%			0
SEWPCP		0.00%			0
SWWPCP		0.00%			0
					0

			(1)	(2)	(3)	
			Total Investment (2) +(3)	Suspended Solids	BOD	Basis of Allocation
	Non-WPAP Plant - Digesters					
			Spltallo-3, Ln 5			
179	Book Cost Before Allocated A&G (a)		8,095	6,071	2,024	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%	71.5%	Spltallo-10
182	Estimated Federal Grant (c)		0	0	0	Ln 180 x Ln 181
183	Net Book Cost Before Alloc. A&G		8,095	6,071	2,024	Ln 179 - Ln 182
			Spltallo-3, BOX 3	(Same calc using Non WPAP Digesters)		
184	A&G Facilities(a)		10,316	7,737	2,579	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%	Spltallo-10
187	Estimated Federal Grant		0	0	0	Ln 185 x Ln 186
188	Net A&G Facilities (a)		10,316	7,737	2,579	Ln 184 - Ln 187
189	Net Book Cost includingass A&G (a)		18,411	13,808	4,603	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	2,636	2,088	548	Ln 179 x Ln 191
195		SWWPCP	5,459	3,983	1,476	Ln 179 x Ln 192
196	Total (a)		8,095	6,071	2,024	
	A&G					
197	Allocated to:	NEWPCP	0	0	0	Ln 184 x Ln 190
198		SEWPCP	3,359	2,661	698	Ln 184 x Ln 191
199		SWWPCP	6,957	5,076	1,881	Ln 184 x Ln 192
200	Total (a)		10,316	7,737	2,579	

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

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
	WPAP Plant - Preliminary Treatment Bldg					
201	Book Cost Before Allocated A&G (a)		Spltallo-3, Ln 31 30,511	30,511	0	100% Capacity - 0% BOD
202	Book Cost Subject to Federal Grant		Spltallo-3, Ln 31 27,463	27,463	0	100% Capacity - 0% BOD
203	Estimated Federal Grant - %		71.5%	71.5%	71.5%	Spltallo-10
204	Estimated Federal Grant		19,636	19,636	0	Ln 202 x Ln 203
205	Net Book Cost Before Alloc. A&G		10,875	10,875	0	Ln 201 - Ln 204
206	A&G Facilities(a)		Spltallo-3, BOX 3 4,515	4,515	0	100% Capacity - 0% BOD
			Spltallo-3, BOX 3	(Same calc. using data from col. (1) + (4))		
207	A&G subject to Federal Grant(b)		4,065	4,065	0	100% Capacity - 0% BOD
208	Estimated Federal Grant - % (c)		71.5%	71.5%	71.5%	Spltallo-10
209	Estimated Federal Grant		2,906	2,906	0	Ln 207 x Ln 208
210	Net A&G Facilities (a)		1,609	1,609	0	Ln 206 - Ln 209
211	Net Book Cost includingass A&G (a)		12,484	12,484	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
216		SEWPCP	4,436	4,436	0	Ln 201 x Ln 213
217		SWWPCP	26,075	26,075	0	Ln 201 x Ln 214
218	Total (a)		30,511	30,511	0	
	A&G					
219	Allocated to:	NEWPCP	0	0	0	Ln 206 x Ln 212
220		SEWPCP	656	656	0	Ln 206 x Ln 213
221		SWWPCP	3,859	3,859	0	Ln 206 x Ln 214
222	Total (a)		4,515	4,515	0	
	Federal Grants(excluding A&G)					
223	Allocated to:	NEWPCP	0	0	0	Ln 204 x Ln 212
224		SEWPCP	2,855	2,855	0	Ln 204 x Ln 213
225		SWWPCP	16,781	16,781	0	Ln 204 x Ln 214
226	Total (b)		19,636	19,636	0	

		(4) Total Investment $1,000 (5)+(6)	(5) Capacity $1,000		(6) BOD $1,000	
	Book Cost Applicable to Federal Grants					
215	Allocated to: NEWPCP	0	0	Ln 202 x Ln 212	0	.n 202 x Ln 212
216	SEWPCP	3,993	3,993	Ln 202 x Ln 213	0	.n 202 x Ln 213
217	SWWPCP	23,470	23,470	Ln 202 x Ln 214	0	.n 202 x Ln 214
218	Total (a)	27,463	27,463		0	
	A&G Applicable to Federal Grants					
219	Allocated to: NEWPCP	0	0	Ln 207 x Ln 212	0	.n 207 x Ln 212
220	SEWPCP	591	591	Ln 207 x Ln 213	0	.n 207 x Ln 213
221	SWWPCP	3,474	3,474	Ln 207 x Ln 214	0	.n 207 x Ln 214
222	Total (a)	4,065	4,065		0	
	Federal Grants - A&G			Col (2)		Col (3)
223	Allocated to: NEWPCP	0	0	Ln 209 x Ln 212	0	.n 209 x Ln 212
224	SEWPCP	423	423	Ln 209 x Ln 213	0	.n 209 x Ln 213
225	SWWPCP	2,483	2,483	Ln 209 x Ln 214	0	.n 209 x Ln 214
226	Total (b)	2,906	2,906		0	

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

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)	Spltallo-3, Ln 54 0	0	0	100% Capacity - 0% BOD					
228	Book Cost Subject to Federal Grant	Spltallo-3, Ln 54 0	0	0	100% Capacity - 0% BOD					
229	Estimated Federal Grant - %	71.5%	71.5%	71.5%	Spltallo-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					
232	A&G Facilities(a)	Spltallo-3, BOX 3 0	0	0	100% Capacity - 0% BOD					
233	A&G subject to Federal Grant(b)	Spltallo-3, BOX 3 0	(Same calc. using data from col. (1) + (4)) 0	0	100% Capacity - 0% BOD					
234	Estimated Federal Grant - % (c)	71.5%	71.5%	71.5%	Spltallo-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 includingass A&G (a)	0	0	0	Ln 231 + Ln 236					
238	Percent Allocable to: NEWPCP		0.00%	0.00%						
239	SEWPCP		29.08%	0.00%	BD-28c, Fax Dated 9/22/93 from J. S. Clare III					
240	SWWPCP		70.92%	0.00%	BD-28c, Fax Dated 9/22/93 from J. S. Clare III					
	Book Cost Before Allocated A&G					Book Cost Applicable to Federal Grants			Col (2)	Col (3)
241	Allocated to: NEWPCP	0	0	0	Ln 227 x Ln 238	Allocated to: NEWPCP	0	0	Ln 228 x Ln 238	0 .n 228 x Ln 238
242	SEWPCP	0	0	0	Ln 227 x Ln 239	SEWPCP	0	0	Ln 228 x Ln 239	0 .n 228 x Ln 239
243	SWWPCP	0	0	0	Ln 227 x Ln 240	SWWPCP	0	0	Ln 228 x Ln 240	0 .n 228 x Ln 240
244	Total (a)	0	0	0		Total (a)	0	0		0
	A&G					A&G Applicable to Federal Grants				
245	Allocated to: NEWPCP	0	0	0	Ln 232 x Ln 238	Allocated to: NEWPCP	0	0	Ln 233 x Ln 238	0 .n 233 x Ln 238
246	SEWPCP	0	0	0	Ln 232 x Ln 239	SEWPCP	0	0	Ln 233 x Ln 239	0 .n 233 x Ln 239
247	SWWPCP	0	0	0	Ln 232 x Ln 240	SWWPCP	0	0	Ln 233 x Ln 240	0 .n 233 x Ln 240
248	Total (a)	0	0	0		Total (a)	0	0		0
	Federal Grants(excluding A&G)					Federal Grants - A&G			Col (2)	Col (3)
249	Allocated to: NEWPCP	0	0	0	Ln 230 x Ln 238	Allocated to: NEWPCP	0	0	Ln 235 x Ln 238	0 .n 235 x Ln 238
250	SEWPCP	0	0	0	Ln 230 x Ln 239	SEWPCP	0	0	Ln 235 x Ln 239	0 .n 235 x Ln 239
251	SWWPCP	0	0	0	Ln 230 x Ln 240	SWWPCP	0	0	Ln 235 x Ln 240	0 .n 235 x Ln 240
252	Total (b)	0	0	0		Total (b)	0	0		0

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

Tbls-A41 currently developed on Retcos-23

TEST YEAR INVESTMENT IN THE WASTEWATER SYSTEM
SUMMARY OF ALLOCATIONS TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2017

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 (1) - (2)	(4) Col. (1) Reference		(5) Col. (2) Reference	
	COLLECTION SYSTEM							
1	Sewers (a) - Capacity	1,353,850	17,818	1,336,032	Spltallo-5	Ln 1..2 - Contrib. of $10,012.6	Spltallo-40	Ln 1
2	Pumping Stations - Capacity	32,011	252	31,759	Spltallo-5	Ln 3	Spltallo-40	Ln 2
3	LTCP Investment	37,079	4,501	32,578				
4	Total Collection System	1,422,940	22,571	1,400,369				
	WATER POLLUTION CONTROL PLANTS							
	Northeast Plant:							
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton							
5	- Capacity	6,178	1,292	4,886	Spltallo-6	Ln 49	Spltallo-40	Ln 5
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
6	Volume	73,476	20,424	53,052	Spltallo-6	Ln 49	Spltallo-40	Ln 6
7	Capacity	29,405	6,377	23,028	Spltallo-6	Ln 49	Spltallo-40	Ln 7
8	Suspended Solids	79,566	15,014	64,552	Spltallo-6	Ln 49	Spltallo-40	Ln 8
9	BOD	99,436	25,166	74,270	Spltallo-6	Ln 49	Spltallo-40	Ln 9
10	Subtotal	281,883	66,981	214,902				
11	Total Northeast Plant	288,061	68,273	219,788				
	Southwest Plant:							
12	Retail - Capacity	18,563	0	18,563	Spltallo-9	Ln 45		Input
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby							
13	Volume	77,203	32,964	44,239	Spltallo-9	Ln 45	Spltallo-40	Ln 13
14	Capacity	25,951	9,551	16,400	Spltallo-9	Ln 45	Spltallo-40	Ln 14
15	Suspended Solids	65,439	17,461	47,978	Spltallo-9	Ln 45	Spltallo-40	Ln 15
16	BOD	59,490	27,439	32,051	Spltallo-9	Ln 45	Spltallo-40	Ln 16
17	Total Southwest Plant	246,646	87,415	159,231				
	Southeast Plant:							
	Retail and Springfield (Wyndmoor)							
18	Volume	53,656	488	53,168	Spltallo-11	Ln 39	Spltallo-40	Ln 18
19	Capacity	51,242	286	50,956	Spltallo-11	Ln 39	Spltallo-40	Ln 19
20	Suspended Solids	28,912	90	28,822	Spltallo-11	Ln 39	Spltallo-40	Ln 20
21	BOD	29,504	81	29,423	Spltallo-11	Ln 39	Spltallo-40	Ln 21
22	Total Southeast Plant	163,314	945	162,369		29,297,638		
23	Total Water Pollution Control Plants	698,021	156,633	541,388				
24	Total Investment	2,120,961	179,204	1,941,757		10,012,638		

(a) Total sewers investment from Spltallo-5 includes Storm and Flood Relief and is reduced here by stormwater contributions of $10,012,638.0.

FY2001 balance sheet contributions of $29,297,638.0 from local sources includes $19,285,000.0 wholesale wastewater capital contributions calculated in this file (also see memo dated 12/20/99 to Joe Clare filed with #31416.0100 Misc. Corr.) See hand notes filed with letter (and Support calcs) which explain that, with exception of wholesale contributions, all local contributions are stormwater related. $29,297,638.0 less $19,285,000.0 wholesale conveyance contributions for the townships of Bensalem, Bucks County, DELCORA, Lower Merion, Lower Southampton, and Upper Darby calculated on sheet Spltallo-40.

BOX 1 - CHECK OF TOTAL PLANT ON Spltallo-24 vs Spltallo-5

	Ref:	$1,000
Total Plant	Spltallo-5	2,648,555
Less Fed Grants - NE	Spltallo-8	(226,940)
Less Fed Grants - SW	Spltallo-10	(142,878)
Less Fed Grants - SE	Spltallo-12	(147,804)
Less Contributions	(a)	(10,013)
Total		2,120,920
Total Per This Page		2,120,961
Difference		41

WATER POLLUTION CONTROL PLANT INVESTMENT PER UNIT OF CAPACITY

Test Year 2017

Line No.	Cost Component	(1) Direct Investment $ Spltallo-24	(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	6,178,000	370 mgd = 49,470 Mcf/day	124.8838 /Mcf/day	49,470	Mcf/day		
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
2	Volume	73,476,000	76,650 mg = 10,247,000 Mcf	7.1705 /Mcf	10,247,000	Mcf		
3	Capacity	29,405,000	420 mgd = 56,150 Mcf/day	523.6866 /Mcf/day	56,150	Mcf/day		
4	Suspended Solids	79,566,000	173,240,000 lbs	459.2819 /1,000 lbs	173,240,000	lbs		
5	BOD	99,436,000	128,491,000 lbs	773.8752 /1,000 lbs	128,491,000	lbs		
	Southwest Water Pollution Control Plant							
6	Retail - Capacity	18,563,000	50 mgd = 6,684 Mcf/day	2,777.2292 /Mcf/day	6,684	Mcf/day		
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby							
7	Volume	77,203,000	73,000 mg = 9,759,000 Mcf	7.9110 /Mcf	9,759,000	Mcf		
8	Capacity	25,951,000	400 mgd = 53,476 Mcf/day	485.2831 /Mcf/day	53,476	Mcf/day	(200 mgd):	
9	Suspended Solids	65,439,000	133,024,000	491.9337 /1,000 lbs (a)	178,354,000	lbs	130,287,000	lbs
10	BOD	59,490,000	79,297,000	750.2218 /1,000 lbs (a)	123,377,000	lbs	71,232,000	lbs
	Southeast Water Pollution Control Plant							
	Retail and Springfield (Wyndmoor)							
11	Volume	53,656,000	40,880 mg = 5,465,000 Mcf	9.8181 /Mcf	5,465,000	Mcf		
12	Capacity	51,242,000	224 mgd = 29,947 Mcf/day	1,711.0896 /Mcf/day	29,947	Mcf/day		
13	Suspended Solids	28,912,000	66,065,000 lbs	437.6296 /1,000 lbs	66,065,000	lbs		
14	BOD	29,504,000	56,940,000 lbs	518.1595 /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.

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

	200 mgd		210 mgd	
	1,000		1,000	
Total SS Cost $101,412,000				
Non-Abatement:				
Direct	19,287	Spltallo-9, Ln 16 Less ------>	2,090	Spltallo-9, Ln 4
Admin. & General	21,448	Spltallo-9,Ln 19+Ln 20 Less ->	2,324	Spltallo-9,(Ln 19 + Ln 20)/Ln 16 * Line above [2,090]
Abatement:				
Direct	49,887	Spltallo-9, Ln 39 Less ------>	1,475	Spltallo-9,(Ln 25..29)
Admin. & General	4,760	Spltallo-9,Ln 40+Ln 41 Less ->	141	Spltallo-9,(Ln 40 + Ln 41)/Ln 39 * Line above [1,475]
	95,382		6,030	
Less Federal Grants:				
Direct	32,104	Spltallo-10, Ln 18 Less ------>	950	Spltallo-10,(Ln 4..8)
Admin. & General	2,835	Spltallo-10,Ln 19+Ln 20 Less ->	84	Spltallo-10,(Ln 19 + Ln 18)/Ln 18 * Line above [950]
Net Investment	60,443		4,996	
Total BOD Cost $103,646,000				
Non-Abatement:				
Direct	11,434	Spltallo-9, Ln 16 Less ------>	0	Spltallo-9, Ln 4
Admin. & General	24,995	Spltallo-9,Ln 19+Ln 20 Less ->	0	Spltallo-9,(Ln 19 + Ln 20)/Ln 16 * Line above [0]
Abatement:				
Direct	22,481	Spltallo-9, Ln 39 Less ------>	36,787	Spltallo-9,(Ln 25..29)
Admin. & General	3,015	Spltallo-9,Ln 40+Ln 41 Less ->	4,934	Spltallo-9,(Ln 40 + Ln 41)/Ln 39 * Line above [36787]
	61,925		41,721	
Less Federal Grants:				
Direct	14,469	Spltallo-10, Ln 18 Less ------>	23,675	Spltallo-10,(Ln 4..8)
Admin. & General	2,281	Spltallo-10,Ln 19+Ln 20 Less ->	3,731	Spltallo-10,(Ln 19 + Ln 20)/Ln 18 * Line above [23675]
Net Investment	45,175		14,315	

	Net Investment	Units		Unit Investment	
210 mgd					
SS	4,996,000	178,354	1,000 lbs	$28.0117	per 1,000 lbs
BOD	14,315,000	123,377	1,000 lbs	$116.0265	per 1,000 lbs
200 mgd					
SS	60,443,000	130,287	1,000 lbs	$463.9220	per 1,000 lbs
BOD	45,175,000	71,232	1,000 lbs	$634.1953	per 1,000 lbs
Total					
SS	65,439,000	133,024	1,000 lbs	$491.9337	per 1,000 lbs
BOD	59,490,000	79,297	1,000 lbs	$750.2218	per 1,000 lbs

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

Reference: Units-2

		Northeast WPC Plant								Southwest WPC Plant				WPC Plant	
	Units	Abington	Bensalem	Bucks County	Cheltenham	Lower Moreland	Lower Southhampton	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	1,793	508	1,364	11,919	13,392	2,728	397	3,024	19,541	167	31,627
Infiltration	(Mcf/day)	20	20	140	40	10	30	260	0	60	10	70	140	0	400
Total	(Mcf/day)	844	1,034	6,556	1,833	518	1,394	12,179	13,392	2,788	407	3,094	19,681	167	32,027
															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	9,800	2,800	7,500	65,300	0	14,900	2,200	16,600	33,700	900	99,900
Total	(Mcf)	221,792	304,871	1,206,223	664,170	95,514	355,909	2,848,479	2,439,840	722,453	158,350	846,145	4,166,788	49,697	7,064,964
Suspended Solids:															
Sanitary Wastewater	(1,000 lbs)	2,386	3,734	13,400	5,798	966	6,000	32,284	19,487	7,250	1,200	7,349	35,286	200	67,770
Infiltration	(1,000 lbs)	28	35	219	61	17	47	407	0	93	14	104	211	6	624
Total	(1,000 lbs)	2,414	3,769	13,619	5,859	983	6,047	32,691	19,487	7,343	1,214	7,453	35,497	206	68,394
BOD:															
Sanitary Wastewater	(1,000 lbs)	2,386	5,340	13,400	5,063	729	5,500	32,418	21,771	6,871	1,050	6,831	36,523	155	69,096
Infiltration	(1,000 lbs)	7	9	55	15	4	12	102	0	23	3	26	52	1	155
Total	(1,000 lbs)	2,393	5,349	13,455	5,078	733	5,512	32,520	21,771	6,894	1,053	6,857	36,575	156	69,251

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

TABLE WH - 6

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO ABINGTON TOWNSHIP

Test Year 2017

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 $
	Treatment						
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
1	- Capacity	Mcf/day	124.8838	844		105,402	105,000
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
2	- Volume	Mcf	7.1705	221,792		1,590,360	1,590,000
3	- Capacity	Mcf/day	523.6866	844		441,991	442,000
4	- SS	1,000 lbs	459.2819	2,414		1,108,707	1,109,000
5	- BOD	1,000 lbs	773.8752	2,393		1,851,883	1,852,000
6	Total Treatment					5,098,343	5,098,000
	Conveyance						
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
			System Investment/Cost		Allocation		
11	LTCP Investment		37,078,807		0.5824%	215,960	216,000
12	Total Allocated System Investment					5,804,111	5,804,000

	Investment	Reference
Abbington	5,804,000	Line 12, Column (6)
Bensalem	9,836,000	Spltallo-36
Bucks County	31,134,000	Spltallo-37
Cheltenham	12,692,000	Spltallo-29
DELCORA	55,221,000	Spltallo-38
Lower Merion	17,660,000	Spltallo-30
Lower Moreland	2,877,000	Spltallo-31
Lower Southampton	21,076,000	Spltallo-32
Springfield (less W)	3,900,000	Spltallo-33
Springfield	1,276,000	Spltallo-35
Upper Darby	17,728,000	Spltallo-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 2017

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 $
	Treatment						
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
1	- Capacity	Mcf/day	0	1,833		0	0
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
2	- Volume	Mcf	7.1705	664,170		4,762,431	4,762,000
3	- Capacity	Mcf/day	523.6866	1,833		959,918	960,000
4	- SS	1,000 lbs	459.2819	5,859		2,690,933	2,691,000
5	- BOD	1,000 lbs	773.8752	5,078		3,929,738	3,930,000
6	Total Treatment					12,343,020	12,343,000
	Conveyance						
7	Cheltenham and Tacony Creek	cfs	15,378	18.000	1.0225	283,032	283,000
8	Bouvier Street	cfs	23,315	2.750	1.0225	65,559	66,000
9	Total Conveyance					348,591	349,000
10	Total Allocated System Investment					12,691,611	12,692,000

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 - 11

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO LOWER MERION TOWNSHIP

Test Year 2017

Line No.	Cost Component	Units	(1) Investment Per Unit $ Spltallo-25	(2) Number of Contract Units Spltallo-27	(3) Infiltration/ Inflow Capacity Allocation Factor Ref. A	(4) Allocated Investment $ (2)*(3)*(4)	(5) Allocated Investment Rounded $
	Treatment						
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
1	Volume	Mcf	7.9110	722,453		5,715,326	5,715,000
2	Capacity	Mcf/day	485.2831	2,788		1,352,969	1,353,000
3	Suspended Solids	1,000 lbs	491.9337	7,343		3,612,269	3,612,000
4	BOD	1,000 lbs	750.2218	6,894		5,172,029	5,172,000
5	Total Treatment					15,852,593	15,852,000
	Conveyance						
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
	City Avenue & Presidential Boulevard						
13	Sewers and Meter Station	cfs	134,831	1.300	1.0225	179,224	179,000
14	Neill Drive Pump Station	cfs	143,297	1.300	1.0225	190,478	190,000
	Barclay Building & Friends Central School						
15	Charged Inside Rates	cfs	43,227	0.052	1.0225	2,298	2,000
16	Total Conveyance					1,809,047	1,808,000
17	Total Allocated System Investment					17,661,640	17,660,000

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 - 12

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO LOWER MORELAND TOWNSHIP

Test Year 2017

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 $
	Treatment						
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
1	- Capacity	Mcf/day	124.8838	518		64,690	65,000
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
2	- Volume	Mcf	7.1705	95,514		684,883	685,000
3	- Capacity	Mcf/day	523.6866	518		271,270	271,000
4	- SS	1,000 lbs	459.2819	983		451,474	451,000
5	- BOD	1,000 lbs	773.8752	733		567,251	567,000
6	Total Treatment					2,039,568	2,039,000
	Conveyance						
7	Woodjavem 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
			System Investment/Cost		Allocation		
16	LTCP Investment		37,078,807		0.36%	133,050	133,000
16	Total Allocated System Investment					2,878,004	2,877,000

(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

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

TABLE WH - 13

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO LOWER SOUTHAMPTON TOWNSHIP

Test Year 2017

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 $
	Treatment						
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
1	- Capacity	Mcf/day	124.8838	1,394		174,088	174,000
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
2	- Volume	Mcf	7.1705	355,909		2,552,045	2,552,000
3	- Capacity	Mcf/day	523.6866	1,394		730,019	730,000
4	- SS	1,000 lbs	459.2819	6,047		2,777,278	2,777,000
5	- BOD	1,000 lbs	773.8752	5,512		4,265,600	4,266,000
6	Total Treatment					10,499,030	10,499,000
	Conveyance						
7	Trevose and City Line	cfs	92,315	15.790	1.0225	1,490,451	1,490,000
8	PC-30 Improvements (a)					8,730,032	8,730,000
9	Total Conveyance					10,220,483	10,220,000
			System Investment		Allocation		
10	LTCP Investment		37,078,807		0.96%	357,483	357,000
11	Total Allocated System Investment					21,076,996	21,076,000

(a) Allocated 18.68 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-9

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO SPRINGFIELD (EXCL. WYNDMOOR) TOWNSHIP

Test Year 2017

Line No.	Cost Component	Units	(1) Investment Per Unit $ Spltallo-25	(2) Number of Contract Units Spltallo-27	(3) Infiltration/ Inflow Capacity Allocation Factor Ref. A	(4) Allocated Investment $ (2)*(3)*(4)	(5) Allocated Investment Rounded $
	Treatment						
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
1	Volume	Mcf	7.9110	158,350		1,252,707	1,253,000
2	Capacity	Mcf/day	485.2831	407		197,510	198,000
3	Suspended Solids	1,000 lbs	491.9337	1,214		597,208	597,000
4	BOD	1,000 lbs	750.2218	1,053		789,984	790,000
5	Total Treatment					2,837,409	2,838,000
	|SEE NOTE ON REVISIONS TO CONVEYANCE INFO MADE ON 9/29/95 BY JLW -->>						
	Conveyance (1)						
	Erdenheim and Stenton			Spltallo-34			
6	Sewers	cfs	139,780	2.000	1.0225	285,850	286,000
7	Central Schuylkill Pump Station	cfs	13,211	2.000	1.0225	27,016	27,000
8	Meter Station	ea	35,702	1.000	1.0225	36,505	37,000
9	Total					349,371	350,000
	Northwestern and Stenton			Spltallo-34			
10	Sewers	cfs	139,780	2.600	1.0225	371,605	372,000
11	Central Schuylkill Pump Station	cfs	13,211	2.600	1.0225	35,121	35,000
12	Meter Station	ea	10,270	1.000	1.0225	10,501	11,000
13	Total					417,227	418,000
14	Total Conveyance					766,598	768,000
			System Investment		Allocation		
15	LTCP Investment		37,078,807		0.79%	294,109	294,000
16	Total Allocated System Investment					3,898,116	3,900,000

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

(1) Excludes connection at Northwestern and Thomas which accounts for less than one half of one percent of township flow.

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.

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 2017

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 $
	Treatment						
	Retail and Springfield (Wyndmoor)						
1	Volume	Mcf	9.8181	49,697		487,930	488,000
2	Capacity	Mcf/day	1711.0896	167		285,752	286,000
3	Suspended Solids	1,000 lbs	437.6296	206		90,152	90,000
4	BOD	1,000 lbs	518.1595	156		80,833	81,000
5	Total Treatment					944,667	945,000
	Conveyance						
6		cfs	167,854	1.930	1.0225	331,247	331,000
7	Total Conveyance					331,247	331,000
8	Total Allocated System Investment					1,275,914	1,276,000

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 2017

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 $
	Treatment						
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
1	- Capacity	Mcf/day	124.8838	1,034		129,130	129,000
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
2	- Volume	Mcf	7.1705	304,871		2,186,078	2,186,000
3	- Capacity	Mcf/day	523.6866	1,034		541,492	541,000
4	- SS	1,000 lbs	459.2819	3,769		1,731,033	1,731,000
5	- BOD	1,000 lbs	773.8752	5,349		4,139,458	4,139,000
6	Total Treatment					8,727,191	8,726,000
	Conveyance						
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
26	Total Allocated System Investment					9,840,001	9,836,000

(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 2017

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 $	Assets in Service Prior to FY 2007 Allocated Investment Rounded $ Contribution Portion
	Treatment							
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton							
1	- Capacity	Mcf/day	124.8838	6,556		818,738	819,000	667,000
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
2	- Volume	Mcf	7.1705	1,206,223		8,649,222	8,649,000	6,364,000
3	- Capacity	Mcf/day	523.6866	6,556		3,433,289	3,433,000	3,372,000
4	- SS	1,000 lbs	459.2819	13,619		6,254,960	6,255,000	5,355,000
5	- BOD	1,000 lbs	773.8752	13,455		10,412,491	10,412,000	8,928,000
6	Total Treatment					29,568,700	29,568,000	24,686,000
	Conveyance							
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	Total Allocated System Investment					31,134,597	31,134,000	26,252,000

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

TABLE_WH-5

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO DELCORA

Test Year 2017

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	(5) Allocated Investment $ (2)*(3)*(4)	(6) Allocated Investment Rounded $	Assets in Service Prior to FY 2011 Allocated Investment Rounded $ Contribution Portion
	Treatment							
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby							
1	Volume	Mcf	7.9110	2,439,840		19,301,574	19,302,000	17,705,000
2	Capacity	Mcf/day	485.2831	13,392		6,498,911	6,499,000	6,297,000
3	Suspended Solids	1,000 lbs	491.9337	19,487		9,586,312	9,586,000	7,672,000
4	BOD	1,000 lbs	750.2218	21,771		16,333,079	16,333,000	14,733,000
5	Total Treatment					51,719,876	51,720,000	46,407,000
6	Conveyance							
						0	0	0
7	Total Conveyance					0	0	0
			System Investment/Cost		Allocation			
8	LTCP Investment		37,078,807		9.44%	3,501,304	3,501,000	636,000
8	Total Allocated System Investment					55,221,180	55,221,000	47,043,000

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-11

WASTEWATER SYSTEM INVESTMENT ALLOCATED TO UPPER DARBY
Test Year 2017

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 $
	Treatment						
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
1	Volume	Mcf	7.9110	846,145		6,693,853	6,694,000
2	Capacity	Mcf/day	485.2831	3,094		1,501,466	1,501,000
3	Suspended Solids	1,000 lbs	491.9337	7,453		3,666,136	3,666,000
4	BOD	1,000 lbs	750.2218	6,857		5,144,271	5,144,000
5	Total Treatment					17,005,726	17,005,000
6	Conveyance						
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
9	Total Allocated System Investment					17,728,311	17,728,000

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 Abington $ Spltallo-28	Bensalem $ Spltallo-36	Bucks County $ Spltallo-37	Cheltenham $ Spltallo-29	Lower Moreland $ Spltallo-31	Lower Southampton $ Spltallo-32	DELCORA $ Spltallo-38	SWPCP Lower Merion $ Spltallo-30	Springfield (ex Wynd.) $ Spltallo-33	Upper Darby $ Spltallo-39	SEWPCP Springfield (including Wyn $ Spltallo-36	Total $
	COLLECTION SYSTEM												
1	Sewers - Capacity	490,000	1,110,000	1,566,000	349,000	705,000	10,220,000	0	1,618,000	706,000	723,000	331,000	17,818,000
2	Pumping Stations - Capacity	0	0	0	0	0	0	0	190,000	62,000	0	0	252,000
3	LTCP Investment	216,000				133,000	357,000	3,501,000		294,000			4,501,000
4	Total Collection System	706,000	1,110,000	1,566,000	349,000	838,000	10,577,000	3,501,000	1,808,000	1,062,000	723,000	331,000	22,571,000
	WATER POLLUTION CONTROL PLANTS												
	Northeast Plant:												
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton												
5	- Capacity	105,000	129,000	819,000	0	65,000	174,000						1,292,000
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton												
6	Volume	1,590,000	2,186,000	8,649,000	4,762,000	685,000	2,552,000						20,424,000
7	Capacity	442,000	541,000	3,433,000	960,000	271,000	730,000						6,377,000
8	Suspended Solids	1,109,000	1,731,000	6,255,000	2,691,000	451,000	2,777,000						15,014,000
9	BOD	1,852,000	4,139,000	10,412,000	3,930,000	567,000	4,266,000						25,166,000
10	Subtotal	4,993,000	8,597,000	28,749,000	12,343,000	1,974,000	10,325,000						66,981,000
11	Total Northeast Plant	5,098,000	8,726,000	29,568,000	12,343,000	2,039,000	10,499,000						68,273,000
	Southwest Plant:												
12	Retail - Capacity												
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby												
13	Volume							19,302,000	5,715,000	1,253,000	6,694,000		32,964,000
14	Capacity							6,499,000	1,353,000	198,000	1,501,000		9,551,000
15	Suspended Solids							9,586,000	3,612,000	597,000	3,666,000		17,461,000
16	BOD							16,333,000	5,172,000	790,000	5,144,000		27,439,000
17	Total Southwest Plant							51,720,000	15,852,000	2,838,000	17,005,000		87,415,000
	Southeast Plant:												
	Retail and Springfield (Wyndmoor)												
18	Volume											488,000	488,000
19	Capacity											286,000	286,000
20	Suspended Solids											90,000	90,000
21	BOD											81,000	81,000
22	Total Southeast Plant											945,000	945,000
23	Total Water Pollution Control Plants	5,098,000	8,726,000	29,568,000	12,343,000	2,039,000	10,499,000	51,720,000	15,852,000	2,838,000	17,005,000	945,000	156,633,000
24	Total Investment	5,804,000	9,836,000	31,134,000	12,692,000	2,877,000	21,076,000	55,221,000	17,660,000	3,900,000	17,728,000	1,276,000	179,204,000
	Total Investment Rounded from Spltallo-29 thru Spltallo-39.	5,804,000	9,836,000	31,134,000	12,692,000	2,877,000	21,076,000	55,221,000	17,660,000	3,900,000	17,728,000	1,276,000	179,204,000
	Total Collection System (above)	706,000	1,110,000	1,566,000	349,000	838,000	10,577,000	3,501,000	1,618,000	1,000,000	723,000	331,000	22,319,000
	Total Water Pollution Control Plants & Pumping (Difference)	5,098,000	8,726,000	29,568,000	12,343,000	2,039,000	10,499,000	51,720,000	16,042,000	2,900,000	17,005,000	945,000	156,885,000

ALLOCATION OF LAND INVESTMENT TO CONTRACT CUSTOMERS

(a) Total SWWPCP Investment	246,646,000	Spltallo-24	Ln 17
(b) Total DELCORA Allocated Treatment Plant Investment	51,720,000	Spltallo-40	Ln 17
(c) Total Upper Darby Allocated Treatment Plant Investment	17,005,000	Spltallo-40	Ln 17
(c1) Total Lower Merion Allocated Treatment Plant Investment	15,852,000	Spltallo-40	Ln 17
(d) Total SWWPCP Land Investment	738,000	Spltallo-9	Ln 18
(e) Total SWWPCP Depreciable Plant Investment	245,908,000	(a) - (d)	

Lower Merion Allocated Land=	(c1)-{((e)/(a))*(c1)}=	47,000
DELCORA Allocated Land =	(b)-{((e)/(a))*(b)} =	155,000
Upper Darby Allocated Land =	(c)-{((e)/(a))*(c)} =	51,000

(a) Total NEWPCP Investment	288,061,000	Spltallo-24	Ln 11
(b) Total Bensalem Allocated Treatment Plant Investment	8,726,000	Spltallo-40	Ln 11
(c) Total Bucks County Allocated Treatment Plant Investment	29,568,000	Spltallo-40	Ln 11
(d) Total Lower Southampton Allocated Treatment Plant Investment	10,499,000	Spltallo-40	Ln 11
(e) Total NEWWPCP Land Investment	1,014,000	Spltallo-6	Ln 21
(f) Total NEWPCP Depreciable Plant Investment	287,047,000	(a) - (e)	

Bensalem Allocated Land =	(b)-{((f)/(a))*(b)} =	31,000
Bucks County Allocated Land =	(c)-{((f)/(a))*(c)} =	104,000
Lower Southampton Allocated Land =	(d)-{((f)/(a))*(d)} =	37,000

	(1) Total Land $1,000 Spltallo-8 Spltallo-9 Spltallo-10	(2) Total Investment $1,000 Spltallo-24	(3) Total Investment Alloc to Contract Customers $1,000 Spltallo-24	(4) Total Land Alloc to Contract Customers $1,000 (a)	
NEWPCP	1,014	288,061	68,273	68	(excl. Bensalem, Bucks County, and Lower Southampton above)
SWWPCP	738	246,646	87,415	9	(excl. DELCORA, Lower Merion and Upper Darby above)
SEWPCP	168	163,314	945	1	
Total	1,920	698,021	156,633	78	

(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) Total Treatment Investment $1,000 Spltallo-40	(2) Less Land $1,000 Spltallo-41	(3) Total Depreciable Treatment Investment $1,000 (1)-(2)	(4) Pumping Investment $1,000 Spltallo-40	(5) Total Depreciable P & T Investment $1,000 (3)+(4)
Abington	5,098	18	5,080		5,080
Bensalem	8,726	31	8,695		8,695
Bucks County	29,568	104	29,464		29,464
Cheltenham	12,343	43	12,300		12,300
Lower Moreland	2,039	7	2,032		2,032
Lower Southampton	10,499	37	10,462		10,462
Total NEWPCP	68,273	240	68,033		68,033
DELCORA	51,720	155	51,565		51,565
Lower Merion	15,852	47	15,805	190	15,995
Springfield (excluding Wynd)	2,838	9	2,829	62	2,891
Upper Darby	17,005	51	16,954		16,954
Total SWWPCP	87,415	262	87,153	252	87,405
Springfield (includingass Wynd)	945	1	944		944
Total SEWPCP	945	1	944		944
Total Treatment	156,633	503	156,130	252	156,382

DELCORA CONTRIBUTED INVESTMENT

		(1)	(2)	(3)
		Total Investment $1,000 Spltallo-40	Allocated Land $1,000 Spltallo-41	Depreciable Investment $1,000 (1)-(2)
Collection-	Capacity			
Treat & Pumping-				
	Volume	17,705	59	17,646
	Capacity	6,297	21	6,276
	Suspended Solids	7,672	26	7,646
	BOD	14,733	49	14,684
	Total	46,407	155	46,252

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

UPPER DARBY CONTRIBUTED INVESTMENT

		(1)	(2)	(3)
		Total Investment $1,000 Spltallo-40	Allocated Land $1,000 Spltallo-41	Depreciable Investment $1,000 (1)-(2)
Collection-	Capacity	723		723
Treat & Pumping-				
	Volume	6,694	20	6,674
	Capacity	1,501	5	1,496
	Suspended Solids	3,666	11	3,655
	BOD	5,144	15	5,129
	Total	17,005	51	16,954

BENSALEM CONTRIBUTED INVESTMENT

		Total Investment $1,000 Spltallo-40	Allocated Land $1,000 Spltallo-41	Depreciable Investment $1,000 (1)-(2)
Collection-	Capacity	1,110		1,110
Treat & Pumping-				
	Volume	2,186	8	2,178
	Capacity	670	2	668
	Suspended Solids	1,731	6	1,725
	BOD	4,139	15	4,124
	Total	8,726	31	8,695

BUCKS COUNTY CONTRIBUTED INVESTMENT

		Total Investment $1,000 Spltallo-40	Allocated Land $1,000 Spltallo-41	Depreciable Investment $1,000 (1)-(2)
Collection-	Capacity	667		667
Treat & Pumping-				
	Volume	6,364	28	6,336
	Capacity	3,372	15	3,357
	Suspended Solids	5,355	23	5,332
	BOD	8,928	38	8,890
	Total	24,019	104	23,915

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

LOWER SOUTHAMPTON CONTRIBUTED INVESTMENT

		Total Investment $1,000 Spltallo-40	Allocated Land $1,000 Spltallo-41	Depreciable Investment $1,000 (1)-(2)
Collection-	Capacity	10,220		10,220
Treat & Pumping-				
	Volume	2,552	9	2,543
	Capacity	904	3	901
	Suspended Solids	2,777	10	2,767
	BOD	4,266	15	4,251
	Total	10,499	37	10,462

LOWER MERION CONTRIBUTED INVESTMENT

		Total Investment $1,000 Spltallo-40	Allocated Land $1,000 Spltallo-41	Depreciable Investment $1,000 (1)-(2)
Collection-	Capacity	1,618		1,618
Treat & Pumping-				
	Volume	5,715	17	5,698
	Capacity	1,353	4	1,349
	Suspended Solids	3,612	11	3,601
	BOD	5,172	15	5,157
	Total	15,852	47	15,805

TEST YEAR ANNUAL DEPRECIATION EXPENSE

Line No.	Cost Component	(1) Total Investment $1,000 Spltallo-24	(2) Less Contributed Plant (a) $1,000 Spltallo-43	(3) Less Land (d) $1,000 Spltallo-5 Spltallo-41	(4) Depreciable Plant $1,000 (1)-(2)-(3)	(5) Annual Depr Rate % Input	(6) Annual Depreciation Expense $1,000 (4)*(5)
	COLLECTION SYSTEM						
1	Sewers - Capacity	1,353,850	14,338	1,816	1,337,696	2.00%	26,754
2	Pumping Stations - Capacity	32,011	190		31,821	2.50%	796
3	LTCP Investment	37,079			37,079	2.00%	742
4	Total Collection System	1,422,940	14,528	1,816 (b)	1,406,596		28,292
	WATER POLLUTION CONTROL PLANTS						
	Northeast Plant:						
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
5	Volume (c)	73,476	11,057	259	62,160		
6	Capacity	35,583	4,926	125	30,532		
7	Suspended Solids	79,566	9,824	280	69,462		
8	BOD	99,436	17,265	350	81,821		
9	Total Northeast Plant	288,061	43,072	1,014	243,975	2.50%	6,099
	Southwest Plant:						
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby						
10	Volume	77,203	30,018	231	46,954		
11	Capacity	44,514	9,121	133	35,260		
12	Suspended Solids	65,439	14,902	196	50,341		
13	BOD	59,490	24,970	178	34,342		
14	Total Southwest Plant	246,646	79,011	738	166,897	2.50%	4,172
	Southeast Plant:						
	Retail and Springfield (Wyndmoor)						
15	Volume	53,656		55	53,601		
16	Capacity	51,242		53	51,189		
17	Suspended Solids	28,912		30	28,882		
18	BOD	29,504		30	29,474		
19	Total Southeast Plant	163,314		168	163,146	2.50%	4,079
20	Total Water Pollution Control Plants	698,021	122,083	1,920	574,018		14,350
21	Total Investment	2,120,961	136,611	3,736	1,980,614		42,642

(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 Spltallo-43 is: 2,178.0 (Bensalem) + 6,336.0 (Bucks Co.) + 2,543.0 (Lower Southampton) = 11,057.0 (excludes land)
(d) Total land including contributed land.

AVERAGE TEST YEAR DEPRECIABLE PLANT INVESTMENT ALLOCABLE TO CONTRACT CUSTOMERS

Line No.	Cost Component	(1) Total Investment $1,000 Spltallo-24	(2) Investment Allocated to Contract Service $1,000 Spltallo-40	(3) Investment Allocated to Retail Service $1,000 (1)-(2)	(4) Contract Customer Land excl. Contributed Plant (a) $1,000 Spltallo-41 Prorated on (3)	(5) Contract Customer Depreciable Plant incl. Contributed Plant $1,000 (2)-(4)	(6) Contributed Plant (incl. Land) $1,000 Spltallo-43 Spltallo-44	(7) Contract Customer Depreciable Plant $1,000 (5)-(6)
	COLLECTION SYSTEM							
1	Sewers - Capacity	1,353,850	17,818	1,336,032		17,818	14,338	3,480
2	Pumping Stations - Capacity	32,011	252	31,759		252	190	62
3	LTCP Investment	37,079	4,501	32,578		4,501	0	4,501
4	Total Collection System	1,422,940	22,571	1,400,369		22,571	14,528	8,043
	WATER POLLUTION CONTROL PLANTS							
	Northeast Plant:							
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
5	Volume (b)	73,476	20,424	53,052	16	20,408	11,102	9,306
6	Capacity	35,583	7,669	27,914	9	7,660	4,946	2,714
7	Suspended Solids	79,566	15,014	64,552	20	14,994	9,863	5,131
8	BOD	99,436	25,166	74,270	23	25,143	17,333	7,810
9	Total Northeast Plant	288,061	68,273	219,788	68	68,205	43,244	24,961
	Southwest Plant:							
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby							
10	Volume	77,203	32,964	44,239	3	32,961	30,114	2,847
11	Capacity	44,514	9,551	34,963	2	9,549	9,151	398
12	Suspended Solids	65,439	17,461	47,978	3	17,458	14,950	2,508
13	BOD	59,490	27,439	32,051	1	27,438	25,049	2,389
14	Total Southwest Plant	246,646	87,415	159,231	9	87,406	79,264	8,142
	Southeast Plant:							
	Retail and Springfield (Wyndmoor)							
15	Volume	53,656	488	53,168	1	487		487
16	Capacity	51,242	286	50,956		286		286
17	Suspended Solids	28,912	90	28,822		90		90
18	BOD	29,504	81	29,423		81		81
19	Total Southeast Plant	163,314	945	162,369	1	944		944
20	Total Water Pollution Control Plants	698,021	156,633	541,388	78	156,555	122,508	34,047
21	Total Investment	2,120,961	179,204	1,941,757	78	179,126	137,036	42,090

(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 Spltallo-43 is: 2,186.0 (Bensalem) + 6,364.0 (Bucks Co.) + 2,552.0 (Lower Southampton) = 11,102.0

DETERMINATION OF DEPRECIABLE PLANT INVESTMENT ALLOCABLE TO RETAIL SERVICE TEST YEAR 2017

Line No.	Cost Component	(1) Total Depreciable Plant $1,000 Spltallo-44	(2) Contract Customers Depreciable Plant $1,000 Spltallo-45	(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	1,337,696	3,480	1,334,216	2.00%	26,684
2	Pumping Stations - Capacity	31,821	62	31,759	2.50%	794
3	LTCP Investment	37,079	4,501	32,578	2.00%	652
3	Total Collection System	1,406,596	8,043	1,398,553		28,130
	WATER POLLUTION CONTROL PLANTS					
	Northeast Plant:					
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton					
4	Volume	62,160	9,306	52,854		
5	Capacity	30,532	2,714	27,818		
6	Suspended Solids	69,462	5,131	64,331		
7	BOD	81,821	7,810	74,011		
8	Total Northeast Plant	243,975	24,961	219,014	2.50%	5,475
	Southwest Plant:					
	Retail, DELCORA, Lower Merion, Springfield, (excluding Wyndmoor), and Upper Darby					
9	Volume	46,954	2,847	44,107		
10	Capacity	35,260	398	34,862		
11	Suspended Solids	50,341	2,508	47,833		
12	BOD	34,342	2,389	31,953		
13	Total Southwest Plant	166,897	8,142	158,755	2.50%	3,969
	Southeast Plant:					
	Retail and Springfield (Wyndmoor)					
14	Volume	53,601	487	53,114		
15	Capacity	51,189	286	50,903		
16	Suspended Solids	28,882	90	28,792		
17	BOD	29,474	81	29,393		
18	Total Southeast Plant	163,146	944	162,202	2.50%	4,055
19	Total Water Pollution Control Plants	574,018	34,047	539,971		13,499
20	Total Investment	1,980,614	42,090	1,938,524		41,629

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SOMALLO

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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Ref: LINKS
Source: Financial Planning Model

Summary of Combined
O&M Expense Projections

(Liquidated Encumbrances Have Not Been Deducted Yet)

	Prior to FY 2015 Not Inclu									Future Years Beyond Projection Period						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
Operations Division:																
Class 100	0	0	71,789,745	74,515,100	76,750,553	79,103,070	82,136,662	84,355,402	86,596,424	89,068,926	91,769,174	94,549,499	97,414,304	100,365,063	103,402,325	106,533,715
Class 200	0	0	65,310,616	70,461,342	73,817,368	76,294,406	77,435,957	79,417,234	81,382,299	83,745,617	86,510,438	89,366,436	92,315,750	95,363,265	98,510,475	101,762,449
Class 300	0	0	31,672,345	33,446,617	34,700,771	35,833,199	36,924,714	38,041,694	39,092,213	40,177,137	41,295,226	42,446,180	43,630,094	44,848,854	46,104,346	47,395,914
Class 400	0	0	1,219,613	1,197,193	1,349,130	1,376,673	1,409,835	1,443,632	1,478,076	1,513,183	1,548,967	1,585,444	1,622,629	1,660,538	1,699,187	1,738,594
Total	0	0	169,992,319	179,620,252	186,617,822	192,607,348	197,907,168	203,257,961	208,549,012	214,504,863	221,123,805	227,947,559	234,982,777	242,237,720	249,716,333	257,430,672
Interdepartmental Charges:																
WRB	0	0	14,886,768	14,934,429	16,364,396	17,167,992	17,699,679	18,247,937	18,813,261	19,396,160	19,998,161	20,618,808	21,258,661	21,918,299	22,599,320	23,302,339
Law Department	0	0	2,455,124	2,794,488	2,880,660	2,969,501	3,061,096	3,155,529	3,252,890	3,353,269	3,456,760	3,563,461	3,673,471	3,786,894	3,903,837	4,024,407
Public Properties	0	0	3,959,919	4,042,633	4,005,055	4,195,582	4,275,707	4,357,599	4,444,751	4,533,646	4,624,319	4,716,805	4,811,141	4,907,364	5,005,511	5,105,622
Water Dept. (Xfer to Gen'l. Fund)	0	0	6,244,621	6,545,139	8,541,493	10,443,738	7,152,050	7,366,611	7,587,610	7,815,238	8,049,695	8,291,186	8,539,921	8,796,119	9,060,003	9,331,803
Total	0	0	27,546,432	28,316,689	31,791,604	34,776,812	32,188,531	33,127,676	34,098,510	35,098,312	36,128,935	37,190,260	38,283,195	39,408,677	40,568,670	41,764,170
Human Resources:																
Class 100	0	0	8,502,816	8,815,500	9,454,965	9,738,364	10,030,935	10,331,923	10,641,581	10,961,168	11,289,953	11,628,212	11,977,228	12,336,295	12,706,714	13,087,795
Class 200	0	0	3,932,875	3,494,747	4,498,688	4,656,177	4,818,832	4,987,051	5,161,790	5,342,304	5,529,641	5,723,120	5,923,805	6,131,008	6,345,805	6,567,521
Class 300	0	0	625,176	698,035	712,124	726,372	740,882	755,698	770,812	786,225	801,943	817,975	834,328	851,008	868,022	885,376
Class 400	0	0	413,078	691,110	706,660	722,559	738,817	755,440	772,438	789,818	807,588	825,759	844,339	863,336	882,762	902,624
Total	0	0	13,473,945	13,699,391	15,372,437	15,843,472	16,329,466	16,830,113	17,346,620	17,879,515	18,429,126	18,995,066	19,579,700	20,181,647	20,803,303	21,443,316
Finance and Administration:																
Class 100	0	0	2,170,853	2,550,200	2,682,706	2,763,507	2,846,672	2,932,273	3,020,381	3,111,072	3,204,424	3,300,517	3,399,433	3,501,256	3,606,073	3,713,975
Class 200	0	0	4,141,455	6,831,927	8,005,918	5,215,277	5,358,291	5,507,174	5,660,535	5,819,475	5,984,165	6,154,724	6,331,328	6,514,157	6,703,399	6,899,247
Class 2xx	0	0	11,796,207	10,128,746	13,293,279	13,294,599	13,290,610	13,290,209	13,290,145	13,289,536	13,288,276	13,287,067	13,285,908	13,284,796	13,283,740	13,282,724
Class 300	0	0	19,818	19,558	19,946	20,344	20,752	21,167	21,590	22,022	22,463	22,913	23,371	23,839	24,316	24,802
Class 400	0	0	0	24,489	25,040	25,604	26,180	26,769	27,371	27,987	28,617	29,260	29,919	30,592	31,280	31,984
Total	0	0	18,128,333	19,554,921	24,026,888	21,319,331	21,542,505	21,777,591	22,020,022	22,270,092	22,527,944	22,794,481	23,069,958	23,354,639	23,648,808	23,952,732
Planning & Engineering																
Class 100	0	0	13,335,368	14,249,700	15,948,191	16,584,507	17,249,032	17,947,163	18,485,308	19,039,887	19,610,334	20,199,094	20,804,626	21,428,405	22,071,917	22,733,665
Class 200	0	0	19,530,446	24,211,220	26,258,613	27,356,664	28,486,412	29,448,932	30,444,334	31,474,771	32,541,433	33,645,553	34,788,408	35,971,317	37,195,648	38,462,816
Class 300	0	0	939,488	1,182,735	1,206,389	1,230,517	1,255,127	1,280,230	1,305,835	1,331,951	1,358,590	1,385,762	1,413,477	1,441,747	1,470,582	1,499,993
Class 400	0	0	202,568	443,070	453,039	463,232	473,655	484,312	495,209	506,351	517,744	529,393	541,305	553,484	565,937	578,671
Total	0	0	34,007,870	40,086,724	43,866,232	45,634,920	47,464,226	49,160,637	50,730,686	52,352,961	54,028,101	55,759,802	57,547,816	59,394,953	61,304,085	63,275,145
Information Science & Technology																
Class 100	0	0	5,233,042	5,114,671	5,268,112	5,426,155	5,588,940	5,756,608	5,929,306	6,107,185	6,290,401	6,479,113	6,673,486	6,873,691	7,079,901	7,292,299
Class 200	0	0	10,226,939	13,166,774	13,627,611	14,104,577	14,598,237	15,109,176	15,637,997	16,185,327	16,751,813	17,338,126	17,944,961	18,573,035	19,223,091	19,895,899
Class 300	0	0	1,609,074	1,554,517	1,585,608	1,617,320	1,649,666	1,682,660	1,716,313	1,750,639	1,785,652	1,821,365	1,857,792	1,894,948	1,932,847	1,971,504
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	17,069,055	19,835,962	20,481,330	21,148,052	21,836,843	22,548,443	23,283,616	24,043,151	24,827,866	25,638,604	26,476,239	27,341,673	28,235,839	29,159,701
Public Affairs:																
Class 100	0	0	2,644,067	2,831,100	3,016,033	3,106,514	3,199,619	3,295,428	3,394,021	3,495,481	3,599,896	3,708,353	3,819,943	3,934,762	4,052,905	4,174,472
Class 200	0	0	6,874,720	7,169,780	7,415,762	7,675,005	7,944,585	8,222,743	8,510,556	8,808,583	9,117,221	9,436,654	9,767,263	10,109,438	10,463,581	10,830,115
Class 300	0	0	134,263	168,894	172,129	175,563	179,101	182,685	186,339	190,070	193,881	197,767	201,730	205,773	209,896	214,102
Class 400	0	0	13,757	10,875	11,120	11,370	11,626	11,887	12,155	12,428	12,708	12,994	13,286	13,585	13,891	14,203
Total	0	0	9,666,807	10,180,649	10,615,043	10,968,452	11,334,931	11,712,744	12,103,070	12,506,563	12,923,705	13,355,768	13,802,223	14,263,558	14,740,272	15,232,892

Total Water Department:																
Class 100	0	0	103,675,891	108,076,271	113,120,560	116,722,116	121,051,860	124,618,796	128,067,020	131,783,720	135,764,182	139,864,787	144,089,021	148,439,471	152,919,836	157,535,921
Class 200	0	0	110,017,051	125,335,789	133,623,959	135,302,106	138,642,316	142,692,310	146,797,511	151,376,077	156,434,710	161,664,614	167,071,515	172,662,219	178,441,998	184,418,047
Class 300	0	0	35,000,164	37,070,356	38,396,967	39,603,316	40,770,242	41,964,134	43,093,102	44,258,045	45,457,755	46,691,962	47,960,793	49,266,169	50,610,009	51,991,691
Class 400	0	0	1,849,016	2,366,736	2,544,988	2,599,438	2,660,112	2,722,040	2,785,248	2,849,766	2,915,624	2,982,850	3,051,477	3,121,535	3,193,057	3,266,076
Class 500																
Fringe Benefits	0	0	100,569,917	107,987,102	113,643,647	117,301,978	122,780,203	125,842,037	130,222,146	134,941,322	139,999,419	145,280,708	150,788,894	156,541,140	162,545,087	168,809,880
Indemnities	0	0	3,840,767	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000	6,500,000
Subtotal	0	0	354,952,806	387,336,254	407,830,120	418,028,954	432,404,733	444,339,316	457,465,026	471,708,930	487,071,689	502,984,920	519,461,700	536,530,535	554,209,987	572,521,614
Interdepartmental	0	0	27,546,432	28,316,689	31,791,604	34,776,812	32,188,531	33,127,676	34,098,510	35,098,312	36,128,935	37,190,260	38,283,195	39,408,677	40,568,670	41,764,170
Total	0	0	382,499,238	415,652,943	439,621,724	452,805,766	464,593,264	477,466,991	491,563,537	506,807,242	523,200,624	540,175,180	557,744,895	575,939,211	594,778,657	614,285,785

Cash Flow Figures

Ref: LINKS 0

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

	Prior to FY 2015 Not Inclu									Future Years Beyond Projection Period						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Operations Division:																
Class 100	0	0	31,365,861	32,556,604	33,533,302	34,564,493	35,883,222	36,834,805	37,791,264	38,859,225	40,037,772	41,251,202	42,501,683	43,789,613	45,115,227	46,482,212
Class 200	0	0	17,522,884	19,226,294	19,792,337	20,459,181	20,743,936	21,135,357	21,457,395	21,951,171	22,629,089	23,328,045	24,048,546	24,791,950	25,557,927	26,348,288
Class 300	0	0	21,728,615	22,681,861	23,439,915	24,170,088	24,901,353	25,641,221	26,396,370	27,177,737	27,985,533	28,818,078	29,675,764	30,559,763	31,470,803	32,409,859
Class 400	0	0	719,355	706,131	795,747	811,992	831,552	851,486	871,802	892,508	913,615	935,130	957,062	979,422	1,002,218	1,025,461
Total	0	0	71,336,715	75,170,890	77,561,301	80,005,754	82,360,063	84,462,870	86,516,831	88,880,641	91,566,009	94,332,455	97,183,054	100,120,748	103,146,175	106,265,821
Interdepartmental Charges:																
WRB	0	0	4,972,180	4,988,099	5,465,708	5,734,110	5,911,692	6,094,810	6,283,629	6,478,317	6,679,387	6,886,682	7,100,393	7,320,711	7,548,173	7,782,982
Law Department	0	0	908,396	1,033,960	1,065,844	1,098,716	1,132,605	1,167,545	1,203,569	1,240,709	1,279,001	1,318,481	1,359,184	1,401,151	1,444,419	1,489,031
Public Properties	0	0	1,425,571	1,455,348	1,441,820	1,510,409	1,539,255	1,568,736	1,600,110	1,632,112	1,664,755	1,698,050	1,732,011	1,766,651	1,801,984	1,838,024
Water Dept. (Xfer to Gen'l. Fund)	0	0	2,248,064	2,356,250	2,426,938	2,499,746	2,574,738	2,651,980	2,731,539	2,813,486	2,897,890	2,984,827	3,074,372	3,166,603	3,261,601	3,359,449
Total	0	0	9,554,211	9,833,657	10,400,310	10,842,981	11,158,290	11,483,071	11,818,847	12,164,624	12,521,033	12,888,040	13,265,960	13,655,116	14,056,177	14,469,486
Human Resources:																
Class 100	0	0	2,635,873	2,732,805	2,931,039	3,018,893	3,109,590	3,202,896	3,298,890	3,397,962	3,499,885	3,604,746	3,712,941	3,824,251	3,939,081	4,057,216
Class 200	0	0	1,202,026	1,072,975	1,376,095	1,423,973	1,474,642	1,526,215	1,579,708	1,635,108	1,692,778	1,752,338	1,814,111	1,877,888	1,943,997	2,012,232
Class 300	0	0	191,076	214,314	217,830	222,143	226,722	231,271	235,898	240,638	245,498	250,453	255,506	260,659	265,913	271,271
Class 400	0	0	128,054	214,244	219,064	223,993	229,033	234,187	239,456	244,843	250,352	255,985	261,745	267,634	273,656	279,813
Total	0	0	4,157,028	4,234,338	4,744,029	4,889,001	5,039,987	5,194,569	5,353,952	5,518,551	5,688,513	5,863,521	6,044,303	6,230,432	6,422,646	6,620,533
Finance and Administration:																
Class 100	0	0	824,924	969,076	1,019,428	1,050,133	1,081,736	1,114,264	1,147,745	1,182,207	1,217,681	1,254,196	1,291,784	1,330,477	1,370,308	1,411,311
Class 200	0	0	1,553,814	2,784,197	3,201,731	1,987,334	2,087,248	2,143,356	2,201,040	2,260,991	2,323,322	2,387,862	2,454,679	2,523,839	2,595,410	2,669,468
Class 300	0	0	7,436	7,368	7,489	7,637	7,795	7,951	8,110	8,273	8,440	8,610	8,784	8,962	9,142	9,326
Class 400	0	0	0	9,306	9,515	9,729	9,948	10,172	10,401	10,635	10,874	11,119	11,369	11,625	11,886	12,154
Total	0	0	2,386,174	3,769,947	4,238,162	3,054,833	3,186,727	3,275,742	3,367,296	3,462,106	3,560,317	3,661,788	3,766,616	3,874,903	3,986,746	4,102,259
Planning & Engineering																
Class 100	0	0	4,447,215	4,747,988	5,342,480	5,554,365	5,775,554	6,007,889	6,188,009	6,373,667	6,564,604	6,761,698	6,964,375	7,173,191	7,388,638	7,610,153
Class 200	0	0	7,186,155	7,869,361	8,518,941	8,873,261	9,245,166	9,558,160	9,881,350	10,216,756	10,565,015	10,925,480	11,298,566	11,684,705	12,084,324	12,497,906
Class 300	0	0	371,186	412,707	419,478	427,782	436,601	445,360	454,271	463,400	472,756	482,297	492,029	501,951	512,071	522,390
Class 400	0	0	81,028	177,228	181,216	185,292	189,462	193,725	198,083	202,540	207,098	211,758	216,522	221,394	226,375	231,468
Total	0	0	12,085,584	13,207,283	14,462,116	15,040,700	15,646,783	16,205,134	16,721,713	17,256,363	17,809,473	18,381,233	18,971,492	19,581,242	20,211,408	20,861,916
Information Science & Technology																
Class 100	0	0	3,043,492	2,974,649	3,063,888	3,155,805	3,250,479	3,347,993	3,448,433	3,551,886	3,658,443	3,768,196	3,881,242	3,997,679	4,117,610	4,241,138
Class 200	0	0	5,044,264	6,494,287	6,721,587	6,956,843	7,200,332	7,452,344	7,713,176	7,983,137	8,262,547	8,551,736	8,851,047	9,160,833	9,481,462	9,813,314
Class 300	0	0	842,997	814,415	830,703	847,317	864,263	881,549	899,180	917,163	935,506	954,217	973,301	992,767	1,012,622	1,032,875
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	8,930,753	10,283,351	10,616,178	10,959,965	11,315,074	11,681,886	12,060,789	12,452,186	12,856,496	13,274,149	13,705,590	14,151,279	14,611,694	15,087,327
Public Affairs:																
Class 100	0	0	1,322,034	1,415,550	1,508,017	1,553,257	1,599,810	1,647,714	1,697,010	1,747,741	1,799,948	1,854,176	1,909,972	1,967,381	2,026,452	2,087,236
Class 200	0	0	3,192,553	3,341,243	3,446,005	3,565,899	3,692,937	3,822,419	3,956,242	4,095,085	4,239,213	4,388,376	4,542,750	4,702,520	4,867,865	5,038,992
Class 300	0	0	66,444	83,859	85,234	86,921	88,713	90,494	92,304	94,158	96,060	97,999	99,976	101,992	104,048	106,145
Class 400	0	0	6,879	5,437	5,560	5,685	5,813	5,944	6,077	6,214	6,354	6,497	6,643	6,792	6,945	7,102
Total	0	0	4,587,910	4,846,089	5,044,817	5,211,763	5,387,273	5,566,571	5,751,634	5,943,199	6,141,575	6,347,048	6,559,341	6,778,685	7,005,311	7,239,475

Total Water Department:																
Class 100	0	0	43,639,399	45,396,672	47,398,154	48,896,946	50,700,391	52,155,561	53,571,351	55,112,688	56,778,333	58,494,214	60,261,997	62,082,592	63,957,316	65,889,266
Class 200	0	0	35,701,695	40,788,356	43,056,697	43,266,492	44,444,262	45,637,852	46,788,911	48,142,248	49,711,965	51,333,837	53,009,699	54,741,736	56,530,984	58,380,201
Class 300	0	0	23,207,754	24,214,524	25,000,649	25,761,888	26,525,447	27,297,845	28,086,133	28,901,369	29,743,792	30,611,655	31,505,359	32,426,093	33,374,599	34,351,867
Class 400	0	0	935,316	1,112,346	1,211,102	1,236,691	1,265,808	1,295,514	1,325,819	1,356,740	1,388,293	1,420,489	1,453,341	1,486,867	1,521,080	1,555,998
Class 500																
Fringe Benefits	0	0	41,353,262	44,357,642	46,535,394	48,006,760	50,246,690	51,465,037	53,229,651	55,145,673	57,213,833	59,373,236	61,625,591	63,977,751	66,432,635	68,994,547
Indemnities	0	0	1,421,084	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000	2,405,000
Subtotal	0	0	146,258,510	158,274,540	165,606,996	169,573,776	175,587,598	180,256,809	185,406,865	191,063,719	197,241,216	203,638,431	210,260,987	217,120,039	224,221,614	231,576,878
Interdepartmental	0	0	9,554,211	9,833,657	10,400,310	10,842,981	11,158,290	11,483,071	11,818,847	12,164,624	12,521,033	12,888,040	13,265,960	13,655,116	14,056,177	14,469,486
Total	0	0	155,812,721	168,108,197	176,007,306	180,416,757	186,745,888	191,739,880	197,225,712	203,228,343	209,762,249	216,526,471	223,526,947	230,775,155	238,277,791	246,046,364

Ref A:
Ref B:

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

	Prior to FY 2015 Not Inclu									Future Years Beyond Projection Period						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Operations Division:																
Class 100	0	0	40,423,884	41,958,496	43,217,251	44,538,577	46,253,440	47,520,597	48,805,160	50,209,701	51,731,402	53,298,297	54,912,621	56,575,450	58,287,098	60,051,503
Class 200	0	0	47,787,732	51,235,048	54,025,031	55,835,225	56,692,021	58,281,877	59,924,904	61,794,446	63,881,349	66,038,391	68,267,205	70,571,315	72,952,548	75,414,161
Class 300	0	0	9,943,730	10,764,756	11,260,856	11,663,111	12,023,361	12,400,472	12,695,843	12,999,400	13,309,694	13,628,102	13,954,330	14,289,091	14,633,543	14,986,055
Class 400	0	0	500,258	491,062	553,383	564,681	578,283	592,146	606,274	620,675	635,352	650,314	665,567	681,116	696,969	713,133
Total	0	0	98,655,604	104,449,362	109,056,521	112,601,594	115,547,105	118,795,091	122,032,181	125,624,222	129,557,796	133,615,103	137,799,722	142,116,972	146,570,158	151,164,852
Interdepartmental Charges:																
WRB	0	0	9,914,588	9,946,330	10,898,688	11,433,882	11,787,987	12,153,127	12,529,632	12,917,843	13,318,774	13,732,126	14,158,268	14,597,588	15,051,147	15,519,357
Law Department	0	0	1,546,728	1,760,528	1,814,816	1,870,785	1,928,491	1,987,984	2,049,321	2,112,560	2,177,759	2,244,980	2,314,287	2,385,743	2,459,418	2,535,376
Public Properties	0	0	2,534,348	2,587,285	2,563,235	2,685,173	2,736,452	2,788,863	2,844,641	2,901,534	2,959,564	3,018,755	3,079,130	3,140,713	3,203,527	3,267,598
Mayor's Office of Transportation & Utilities	0	0	145,909	144,081	148,494	153,046	157,735	162,569	167,553	172,689	177,982	183,439	189,063	194,862	200,837	206,996
Fleet Management	0	0	5,326,963	5,148,481	5,280,926	5,425,926	5,560,541	5,685,520	5,805,449	5,943,481	6,099,729	6,260,235	6,425,117	6,593,864	6,767,886	6,946,673
Procurement	0	0	38,954	44,250	45,578	46,945	48,354	49,804	51,299	52,837	54,422	56,055	57,737	59,469	61,253	63,091
Water Dept. (Xfer to Gen'l. Fund)	0	0	3,996,557	4,188,889	6,114,555	7,943,992	4,577,312	4,714,631	4,856,071	5,001,752	5,151,805	5,306,359	5,465,549	5,629,516	5,798,402	5,972,354
Total	0	0	23,504,047	23,819,844	26,866,293	29,559,748	26,796,871	27,542,498	28,303,964	29,102,695	29,940,035	30,801,949	31,689,152	32,601,756	33,542,468	34,511,445
Human Resources:																
Class 100	0	0	5,866,943	6,082,695	6,523,926	6,719,471	6,921,345	7,129,027	7,342,691	7,563,206	7,790,068	8,023,466	8,264,287	8,512,044	8,767,633	9,030,579
Class 200	0	0	2,730,850	2,421,772	3,122,592	3,232,204	3,344,190	3,460,836	3,582,082	3,707,196	3,836,863	3,970,782	4,109,694	4,253,119	4,401,809	4,555,289
Class 300	0	0	434,100	483,720	494,294	504,230	514,160	524,428	534,914	545,587	556,446	567,523	578,823	590,350	602,109	614,105
Class 400	0	0	285,024	476,866	487,596	498,566	509,784	521,253	532,982	544,975	557,236	569,774	582,594	595,702	609,106	622,811
Total	0	0	9,316,917	9,465,053	10,628,408	10,954,471	11,289,479	11,635,544	11,992,668	12,360,964	12,740,613	13,131,545	13,535,398	13,951,215	14,380,656	14,822,783
Finance and Administration:																
Class 100	0	0	1,345,929	1,581,124	1,663,278	1,713,374	1,764,936	1,818,009	1,872,636	1,928,865	1,986,743	2,046,321	2,107,649	2,170,779	2,235,765	2,302,664
Class 200	0	0	2,587,641	4,047,730	4,804,187	3,227,943	3,271,043	3,363,818	3,459,495	3,558,484	3,660,842	3,766,862	3,876,649	3,990,318	4,107,989	4,229,779
Class 2xx (SM IP & GARP)	0	0	11,796,207	10,128,746	13,293,279	13,294,599	13,290,610	13,290,209	13,290,145	13,289,536	13,288,276	13,287,067	13,285,908	13,284,796	13,283,740	13,282,724
Class 300	0	0	12,383	12,190	12,457	12,707	12,957	13,216	13,480	13,749	14,023	14,302	14,587	14,877	15,173	15,476
Class 400	0	0	0	15,183	15,525	15,875	16,232	16,597	16,970	17,352	17,743	18,141	18,550	18,967	19,394	19,830
Total	0	0	15,742,159	15,784,974	19,788,726	18,264,498	18,355,778	18,501,849	18,652,726	18,807,986	18,967,627	19,132,693	19,303,342	19,479,737	19,662,062	19,850,473
Planning & Engineering																
Class 100	0	0	8,888,153	9,501,712	10,605,711	11,030,142	11,473,478	11,939,274	12,297,299	12,666,220	13,045,730	13,437,396	13,840,251	14,255,214	14,683,279	15,123,512
Class 200	0	0	12,344,291	13,437,539	14,585,969	15,197,552	15,820,539	16,354,565	16,907,264	17,478,693	18,069,295	18,680,651	19,313,468	19,968,478	20,646,456	21,348,166
Class 300	0	0	568,302	627,753	641,474	654,369	667,256	680,581	694,189	708,040	722,133	736,509	751,173	766,133	781,393	796,960
Class 400	0	0	121,540	265,842	271,823	277,940	284,193	290,587	297,126	303,811	310,646	317,635	324,783	332,090	339,562	347,203
Total	0	0	21,922,287	23,832,845	26,104,977	27,160,003	28,245,466	29,265,006	30,195,878	31,156,764	32,147,803	33,172,191	34,229,675	35,321,916	36,450,691	37,615,841
Information Science & Technology																
Class 100	0	0	2,189,550	2,140,022	2,204,224	2,270,350	2,338,461	2,408,615	2,480,873	2,555,299	2,631,958	2,710,917	2,792,244	2,876,012	2,962,291	3,051,161
Class 200	0	0	5,182,675	6,672,487	6,906,024	7,147,734	7,397,905	7,656,832	7,924,821	8,202,190	8,489,266	8,786,390	9,093,914	9,412,202	9,741,629	10,082,585
Class 300	0	0	766,077	740,102	754,905	770,003	785,403	801,111	817,133	833,476	850,146	867,148	884,491	902,181	920,225	938,629
Class 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	8,138,302	9,552,611	9,865,152	10,188,087	10,521,769	10,866,557	11,222,827	11,590,965	11,971,370	12,364,455	12,770,649	13,190,394	13,624,145	14,072,374
Public Affairs:																
Class 100	0	0	1,322,033	1,415,550	1,508,016	1,553,257	1,599,809	1,647,714	1,697,011	1,747,740	1,799,948	1,854,177	1,909,971	1,967,381	2,026,453	2,087,236
Class 200	0	0	3,682,166	3,828,537	3,969,757	4,109,106	4,251,648	4,400,324	4,554,313	4,713,498	4,878,008	5,048,279	5,224,513	5,406,918	5,595,716	5,791,123
Class 300	0	0	67,819	85,035	86,895	88,641	90,387	92,192	94,035	95,912	97,821	99,768	101,755	103,781	105,848	107,957
Class 400	0	0	6,878	5,438	5,560	5,685	5,813	5,943	6,078	6,214	6,354	6,497	6,643	6,793	6,946	7,101
Total	0	0	5,078,897	5,334,560	5,570,227	5,756,689	5,947,658	6,146,173	6,351,437	6,563,365	6,782,130	7,008,720	7,242,882	7,484,873	7,734,962	7,993,416

Total Sewer Department:																
Class 100	0	0	60,036,492	62,679,599	65,722,406	67,825,170	70,351,469	72,463,235	74,495,669	76,671,032	78,985,849	81,370,573	83,827,024	86,356,879	88,962,520	91,646,655
Class 200 (including 2xx)	0	0	86,111,562	91,771,858	100,706,838	102,044,363	104,067,956	106,808,460	109,643,024	112,744,043	116,103,898	119,578,421	123,171,351	126,887,146	130,729,886	134,703,826
Class 300	0	0	11,792,411	12,713,557	13,250,881	13,693,062	14,093,525	14,512,000	14,849,595	15,196,164	15,550,262	15,913,351	16,285,159	16,666,413	17,058,291	17,459,181
Class 400	0	0	913,700	1,254,390	1,333,886	1,362,747	1,394,304	1,426,526	1,459,429	1,493,026	1,527,331	1,562,361	1,598,136	1,634,668	1,671,977	1,710,078
Class 500																
Fringe Benefits	0	0	59,216,655	63,629,460	67,108,253	69,295,218	72,533,513	74,377,000	76,992,495	79,795,649	82,785,586	85,907,472	89,163,303	92,563,389	96,112,452	99,815,333
Indemnities	0	0	2,419,683	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000	4,095,000
Subtotal Excluding Interdepartment	0	0	220,490,503	236,143,865	252,217,263	258,315,559	266,535,767	273,682,220	281,535,212	289,994,914	299,047,925	308,427,179	318,139,972	328,203,496	338,630,127	349,430,072
Interdepartmental	0	0	23,504,047	23,819,844	26,866,293	29,559,748	26,796,871	27,542,498	28,303,964	29,102,695	29,940,035	30,801,949	31,689,152	32,601,756	33,542,468	34,511,445
Total	0	0	243,994,550	259,963,708	279,083,556	287,875,307	293,332,639	301,224,718	309,839,175	319,097,609	328,987,960	339,229,127	349,829,124	360,805,252	372,172,595	383,941,517

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	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Human Resources	0	0	4,970,062	5,331,639	5,722,865	5,884,830	6,123,175	6,278,758	6,509,973	6,751,711	7,003,528	7,266,187	7,540,494	7,826,723	8,125,884	8,437,657
Finance and Administration	0	0	1,140,176	1,385,896	1,459,047	1,500,552	1,561,404	1,601,177	1,660,264	1,721,907	1,786,148	1,853,183	1,923,059	1,996,005	2,072,118	2,151,478
Planning & Engineering	0	0	7,529,419	8,328,496	9,303,455	9,660,063	10,150,357	10,515,293	10,902,690	11,307,197	11,728,541	12,169,133	12,628,110	13,107,499	13,608,534	14,130,545
Information Science & Technology	0	0	1,854,833	1,875,785	1,933,571	1,988,345	2,068,789	2,121,343	2,199,523	2,281,128	2,366,217	2,455,052	2,547,697	2,644,458	2,745,466	2,850,830
Operations	0	0	34,244,274	36,777,704	37,910,685	39,006,341	40,919,494	41,852,881	43,270,277	44,822,449	46,508,237	48,267,842	50,103,326	52,020,450	54,020,761	56,108,691
Public Affairs	0	0	1,119,933	1,240,766	1,322,850	1,360,323	1,415,319	1,451,193	1,504,557	1,560,217	1,618,213	1,679,174	1,742,694	1,808,983	1,878,126	1,950,194
Dept. Of Revenue (Wrb)	0	0	5,649,554	5,777,321	6,454,225	6,808,180	7,083,514	7,263,314	7,530,808	7,809,957	8,101,535	8,405,831	8,723,036	9,054,178	9,399,672	9,760,487
Law Dept.	0	0	1,140,761	1,251,356	1,289,905	1,326,445	1,380,111	1,415,170	1,467,324	1,521,765	1,578,528	1,637,791	1,699,596	1,764,146	1,831,529	1,901,818
Other Indirect	0	0	1,567,643	1,660,496	1,711,649	1,760,138	1,831,349	1,877,870	1,947,079	2,019,318	2,094,640	2,173,280	2,255,291	2,340,948	2,430,362	2,523,633
Total	0	0	59,216,655	63,629,460	67,108,253	69,295,218	72,533,513	74,377,000	76,992,495	79,795,649	82,785,586	85,907,472	89,163,303	92,563,389	96,112,452	99,815,333
Law Dept. - Water	0	0	669,971	734,923	757,564	779,024	810,541	831,131	861,762	893,734	927,072	961,878	998,175	1,036,086	1,075,660	1,116,941

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Class 100		FY 2017 Test Year Class 100 Somallo-6	Class 100 (a)	Class 100 & Class 500	Adjusted Test Year	
Direct - Wastewater Treatment		Somallo-4				
NEWPCP		6,657,265	7,459,912	14,662,927	14,830,117	
SWWPCP		6,727,146	7,538,220	14,816,846	14,985,792	
SEWPCW		3,726,113	4,175,359	8,206,931	8,300,508	
Total		17,110,524	19,173,491	37,686,705	38,116,417	
Collection						
Sewer Maintenance		9,642,720	10,805,315	21,238,527	23,262,499	
Inlet Cleaning		4,763,307	5,337,606	10,491,401	10,491,401	
Interceptors/Flow Control		4,092,881	4,586,348	9,014,756	(b)	
Data & Flow Control		0	0	0	-	
Collection System Support		918,924	1,029,716	2,023,972	-	
Total		19,417,832	21,758,985	42,768,656	33,753,900	
General Support						
Industrial Waste		1,204,197	1,349,383	2,652,297	2,652,297	
Sludge Engineering Services		0	0	0	0	
Sludge Utilization		0	0	0	0	
Sludge Processing		0	0	0	0	
Total		1,204,197	1,349,383	2,652,297	2,652,297	
Total - Direct		37,732,552	42,281,859	83,107,658	74,522,614	
Indirect						
Treatment HQ		218,620	218,620	429,712	-	allocated to WWTP
Operations Administration		2,403,467	-	-	-	
Security		0	-	-	-	
Building Maintenance		0	-	-	-	
Materials Management		879,443	-	-	-	
Customer Service (c)		716,771	716,771	1,408,859	1,408,859	
Automotive Maintenance		0	-	-	-	
Machine Shops		0	-	-	-	
Meter Shop		1,266,397	-	-	-	
Total - Indirect		5,484,699	935,391	1,838,571	1,408,859	
Total		43,217,251	43,217,250	84,946,229	75,931,473	
Other		Somallo-4				
Human Services		6,523,926	6,523,926	12,823,188	12,823,188	
Finance and Administration		1,663,278	1,663,278	3,269,278	3,269,278	
Public Affairs		1,508,016	1,508,016	2,964,100	2,964,100	
Planning & Engineering		10,605,711	10,605,711	20,846,193	20,846,193	
Information Science & Technology		2,204,224	2,204,224	4,332,540	4,332,540	
Total Other		22,505,155	22,505,155	44,235,299	44,235,299	
	Somallo-4					
Total Class 100	65,722,406	65,722,406	65,722,405	129,181,528	120,166,772	
	(0)					
Class 500		63,459,123	63,459,123	-	-	Excludes Fringes allocated to WRB and Law
Total		129,181,529	129,181,528	129,181,528	120,166,772	

TY Sewage Pumping Not included in Table to left:	
Class 100	0
Class 200	0
Class 300	0
Class 400	0
	0

	(1) Direct Cost $	(2) To Col (D) Direct Cost $	(3) Direct Cost Plus Overhead (To Col (G)) $	(4) Percent Increase	(5) Column (3) Repeated Here $
Direct - Wastewater Treatment	Somallo-6				
NEWPCP	6,657,265	6,657,265	14,830,117	222.77%	14,830,117
SWWPCP	6,727,146	6,727,146	14,985,792	222.77%	14,985,792
SEWPCW	3,726,113	3,726,113	8,300,508	222.77%	8,300,508
Total	17,110,524	17,110,524	38,116,417		38,116,417
	Estimated Distribution of Pumping Class 100				
Flow Control					
Central Schuykill (SW) (a)	422,943	-		196.56%	831,321
Neill Drive (NE) (a)	8,375	-		196.56%	16,462
Other	4,155,030	-		196.56%	8,166,973
Total	4,586,348				9,014,756
	4,586,348				

(a) Estimated based on the historical cost data:

Central Schuykill (SW)	202,000	"PN 13321.300 - B-8.2 - Class 100 and Class 500 "
Neill Drive (NE)	4,000	"PN 13321.300 - B-8.2 - Class 100 and Class 500 "
Fiscal Year	1992	
Ann. Infl. Rate	3%	

(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.

Class 200	(1) FY 2017 Test Year Class 200 (5) & Somallo-8	(2) Net Adjustment to Test Year Power $ Somallo-21	(3) FY 2017 Test Year Class 200 $ (1) + (2)	(4) Class 200 (a)	(5) Adjusted Test Year
Direct - Wastewater Treatment					
NEWPCP	9,083,967	554,241	9,638,208	11,239,260	11,304,072
SWWPCP	2,911,410	2,392,998	5,304,409	6,185,551	6,222,000
SEWPCW	967,008	256,327	1,223,335	1,426,549	1,435,000
Total	12,962,385	3,203,566	16,165,952	18,851,360	18,961,072
Collection					
Sewer Maintenance	2,578,895	122,060	2,700,955	3,149,625	3,157,603
Inlet Cleaning	37,878	0	37,878	44,170	44,170
Interceptors/Flow Control	3,498,406	854,422	4,352,828	5,075,898	(b)
Data & Flow Control	0	0	0	0	-
Collection System Support	6,841	0	6,841	7,978	-
Total	6,122,020	976,482	7,098,502	8,277,671	3,201,773
General Support					
Industrial Waste	51,727		51,727	60,320	60,320
Sludge Engineering Services	0		0	0	0
Sludge Utilization	0		0	0	0
Sludge Processing	20,696,394	101,060	20,797,454	24,252,225	24,252,225
Total	20,748,122	101,060	20,849,181	24,312,545	24,312,545
Total - Direct	39,832,528	4,281,108	44,113,636	51,441,576	46,475,391

	(6) FY 2006 $	(7) FY 2007 $	(8) Annual Inflation Factor	(9) Direct Test Year $ Somallo-8	(10) Col (9) Direct Cost $	(11) Direct Cost Plus Overhead Col (5) $	(12) Percent Increase	(13) Col (11) Less Pumping Below $
Direct - Wastewater Treatment								
NEWPCP				9,083,967	9,083,967	11,304,072	124.44%	11,304,072
SWWPCP				2,911,410	2,911,410	6,222,000	213.71%	6,222,000
SEWPCW				967,008	967,008	1,435,000	148.40%	1,435,000
Total				12,962,385	12,962,385	18,961,072		18,961,072
Pumping					Adjustment Input (a)			
Central Schuykill (SW)	800,000	810,000	5.36%	1,365,000	0	1,365,000		1,365,000
Neill Drive (NE)	35,000	39,000	5.36%	66,000	0	66,000		66,000
Other						3,644,898		3,644,898
Total	835,000	849,000		1,431,000	0	5,075,898		5,075,898
Source:	BD-24	BD-24						

(a) If Direct Test Year costs for Central Schuykill 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	109,712	0	109,712	109,712	-	
Operations Administration	11,515,188	(4,281,108)	7,234,080	0	0	
Security	0	0	0	-	-	
Building Maintenance	0	0	0	-	-	
Materials Management	93,860	0	93,860	-	-	
Customer Service (d)	1,545,567	0	1,545,567	1,545,567	1,545,567	
Warranty Program	0	0	0	0	0	
Automotive Maintenance	0	0	0	-	-	
Machine Shops	0	0	0	-	-	
Meter Shop	928,175	0	928,175	928,175	928,175	(c)
Total - Indirect	14,192,503	(4,281,108)	9,911,395	2,583,454	2,473,742	
Total	54,025,030	0	54,025,030	54,025,030	48,949,132	
Other	Somallo-4					
Admin & Human Services	3,122,592		3,122,592	3,122,592	3,122,592	
Finance and Administration	18,097,466		18,097,466	18,097,466	18,097,466	
Public Affairs	3,969,757		3,969,757	3,969,757	3,969,757	
Planning & Engineering	14,585,969		14,585,969	14,585,969	14,585,969	
Information Science & Technology	6,906,024		6,906,024	6,906,024	6,906,024	
Total Other	46,681,808	0	46,681,808	46,681,808	46,681,808	
Total Class 200	100,706,838	0	100,706,838	100,706,838	95,630,940	
Possible Error ===>	0					
Somallo-4 ($100,706,838.5, Total O&M) - Somallo-10 ($0.0 Liq. Encum.) = $100,706,838.5					95,630,940	
					5,075,898	
(a) Adjusted for allocation of indirect costs.					(2,473,742)	
(b) Include with Pumping Stations					98,233,096	

(c) This is the Sewer Utility share of Class 200 - Automated Meter Reading. This cost will be assigned directly to Joint Direct Expense on Somallo-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 Somallo-38.

USE (Rounding Error add to Sewer Maintenance) 0

FY 2015 Budget Operations Administration - Class 200

	Water & Sewer	Budget Factor	Adj. Budget	Sewer Share	Sewer Costs	Ann. Infl.	Liq Enc Ratio	TY Costs
Direct Costs from Budget (BD 19-1)	$		$		$			$
250 Professional, Consultant & Spec. Services (Automated Meter Reading)	0	88.35%	0	78.72%	0	3.50%	86.75%	0
Power	65,065,700	80.71%	52,517,410	48.35%	25,394,701			
All Other	27,845,000	88.35%	24,599,973	78.72%	19,364,546			
Total	92,910,700		77,117,383		44,759,248			

Class 200

	Wastewater	Stormwater	Total	Wastewater	Stormwater	Total
Finance & Admin						
Stormwater Program - Residential	0	0	0	0	0	0
Stormwater Program - Non-Res	0	0	0	0	0	0
Wastewater Collection Mains	0	0	0	0	0	0
Green Initiatives	0	0	0	0	0	0
Customer (Grants)	1,429,973	857,984	2,287,956	1,429,973	857,984	2,287,956
Customer (Basis2)	340,129	340,129	680,258	340,129	340,129	680,258
Class 200 - All Other	1,835,973	0	1,835,973	1,835,973	0	1,835,973
Class 2xx - SMIP & GARP	13,293,279	0	13,293,279	13,293,278	0	13,293,278
Total	16,899,353	1,198,113	18,097,466	16,899,353	1,198,113	18,097,466
Public Affairs						
Stormwater Program - Residential	0	0	0	0	(0)	(0)
Stormwater Program - Non-Residential	0	0	0	0	(0)	(0)
Wastewater Collection Mains	404,664	0	404,664	456,618	0	456,618
Class 200 - All Other - Volume	1,469,665	0	1,469,665	1,658,355	0	1,658,355
Class 200 - All Other - Customer	1,041,089	0	1,041,089	1,174,755	0	1,174,755
Class 200 - All Other - A&G	602,654	0	602,654	680,029	0	680,029
Total	3,518,072	0	3,518,072	3,969,757	(0)	3,969,757
Planning & Engineering						
Stormwater Program - Residential	0	0	0	0	0	0
Stormwater Program - Non-Residential	0	1,022,704	1,022,704	0	1,022,704	1,022,704
Wastewater Collection Mains	535,915	0	535,915	535,915	0	535,915
Class 251 - CSO Compliance Program	0	0	0	0	0	0
Class 200 - Office of Watersheds	8,086,952	0	8,086,952	8,086,951	0	8,086,951
Class 200 - BLS	1,209,934	0	1,209,934	1,209,934	0	1,209,934
Class 200 - All Other (Plant Investment)	3,730,465	0	3,730,465	3,730,465	0	3,730,465
Total	13,563,266	1,022,704	14,585,970	13,563,265	1,022,704	14,585,969

Class 300	FY 2017 Test Year Class 300	Class 300 (a)	Adjusted Test Year
Direct - Wastewater Treatment			
NEWPCP	2,207,823	3,202,604	3,204,420
SWWPCP	1,338,029	1,940,906	1,942,007
SEWPCW	1,547,225	2,244,360	2,245,633
Total	5,093,077	7,387,870	7,392,060
Collection			
Sewer Maintenance	582,543	845,019	847,495
Inlet Cleaning	94,436	136,987	136,987
Interceptors/Flow Control	1,897,778	2,752,862	(b)
Data & Flow Control	0	0	-
Collection System Support	1,707	2,476	-
Total	2,576,464	3,737,344	984,482
General Support			
Industrial Waste	40,740	59,097	59,097
Sludge Engineering Services	0	0	0
Sludge Utilization	0	0	0
Sludge Processing	40,635	58,944	58,944
Total	81,376	118,041	118,041
Total - Direct	7,750,917	11,243,255	8,494,584
Indirect			
Treatment HQ	4,190	4,190	-
Operations Administration	319,434	-	-
Security	0	-	-
Building Maintenance	0	-	-
Materials Management	3,119,672	-	-
Customer Service (c)	13,410	13,410	13,410
Automotive Maintenance	0	-	-
Machine Shops	0	-	-
Meter Shop	53,232	-	-
Total - Indirect	3,509,939	17,600	13,410
Total	11,260,856	11,260,856	8,507,994
Other	Somallo-4		
Admin & Human Services	494,294	494,294	494,294
Finance and Administration	12,457	12,457	12,457
Public Affairs	86,895	86,895	86,895
Planning & Engineering	641,474	641,474	641,474
Information Science & Technology	754,905	754,905	754,905
Total Other	1,990,025	1,990,025	1,990,025
Total Class 300	13,250,880	13,250,880	10,498,018
Possible Error ===>	1		

	(1) Direct Cost $	(2) Col (D) Direct Cost $	(3) Direct Cost Plus Overhead Col (F) $	(4) Percent Increase	(5) Col 3 Less Pumping Below $
Direct - Wastewater Treatment					
NEWPCP	2,207,823	2,207,823	3,204,420	145.14%	3,204,420
SWWPCP	1,338,029	1,338,029	1,942,007	145.14%	1,942,007
SEWPCW	1,547,225	1,547,225	2,245,633	145.14%	2,245,633
Total	5,093,077	5,093,077	7,392,060		7,392,060
Other			2,752,862		2,752,862

Somallo-4($13,250,881, Total O&M) - Somallo-14 ($0 Liq. Encum.) = $13,250,881
(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

Class 400		FY 2017 Test Year Class 400	Class 400 (a)	Adjusted Test Year
Direct - Wastewater Treatment				
NEWPCP		159,074	173,525	174,223
SWWPCP		141,816	154,698	155,319
SEWPCW		126,809	138,329	138,885
Total		427,700	466,552	468,427
Collection				
Sewer Maintenance		36,392	39,698	39,698
Inlet Cleaning		22,135	24,146	24,146
Interceptors/Flow Control		9,755	10,641	(b)
Data & Flow Control		0	0	-
Collection System Support		0	0	-
Total		68,282	74,485	63,844
General Support				
Industrial Waste		3,752	4,093	4,093
Sludge Engineering Services		0	0	0
Sludge Utilization		0	0	0
Sludge Processing		0	0	0
Total		3,752	4,093	4,093
Total - Direct		499,733	545,130	536,364
Indirect				
Treatment HQ		1,876	1,876	-
Operations Administration		40,519	-	-
Security		0	-	-
Building Maintenance		0	-	-
Materials Management		750	-	-
Customer Service (c)		6,378	6,378	6,378
Automotive Maintenance		0	-	-
Machine Shops		0	-	-
Meter Shop		4,127	-	-
Total - Indirect		53,650	8,254	6,378
Total		553,383	553,383	542,742
Other		Somallo-4		
Admin & Human Services		487,596	487,596	487,596
Finance and Administration		15,525	15,525	15,525
Public Affairs		5,560	5,560	5,560
Planning & Engineering		271,823	271,823	271,823
Information Science & Technology		0	0	0
Total Other		780,503	780,503	780,503
	Somallo-4			
Total Class 400	1,333,886	1,333,886	1,333,886	1,323,245
Possible Error ===>	**(0)**			

(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

	(1) Direct Cost $	(2) Col (D) Direct Cost $	(3) Direct Cost Plus Overhead Col (F) $	(4) Percent Increase	(5) Column 3 Less Pumping Below $
Direct - Wastewater Treatment					
NEWPCP	159,074	159,074	174,223	109.52%	174,223
SWWPCP	141,816	141,816	155,319	109.52%	155,319
SEWPCW	126,809	126,809	138,885	109.52%	138,885
Total	427,700	427,700	468,427		468,427
Other					10,641

CLASS 220	(1) FY 2017 Test Year $	(2) Assign Cogen Costs to Trtmt Plts $ See Note (a)	(3)	(4) FY 2017 Test Year $ (1)*(3)	(5) Test Year Adjustment $ (4)	(6) Estimated Test Year Adjusted $ (4)+(5)	(7) Less Pumping Station Power $ Somallo-18	(8) Test Year Power Excl. Pump. Sta. Power $ (6)-(7)	(9) Test Year Adjustments: Prorate Coll. Sys. Costs to Trtmt Plts $ (8)	(10) Test Year Adjustments: Reallocate Ops Admin Power $	(11) Estimated Adjusted Test Year Power $ (8)+(9)+(10)	(12) Estimated Adjusted Test Year Power $ (11)	(13) Plus Pumping Station Power $ (7)	(14) Test Year Power Incl. Pump. Sta. Power $ (12)+(13)	(15) Net Adjustment to Test Year Power $ (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	143,061			143,061	(143,061)	0		0		244,121	244,121	244,121		244,121	101,060
NEWPCP	286,123	4,760,597		5,046,720		5,046,720	0	5,046,720		488,241	5,534,961	5,534,961	66,000	5,600,961	554,241
SWWPCP	518,597			518,597	143,061	661,658	0	661,658		884,937	1,546,595	1,546,595	1,365,000	2,911,595	2,392,998
SEWPCP	150,214			150,214		150,214	0	150,214		256,327	406,541	406,541	0	406,541	256,327
Industrial Waste	0			0		0		0		0	0	0		0	0
Sewer Maintenance	71,531			71,531		71,531		71,531		122,060	193,591	193,591		193,591	122,060
Inlet Cleaning	0			0		0		0		0	0	0		0	0
Interceptors/Flow Control	500,714			500,714		500,714		500,714		854,422	1,355,136	1,355,136		1,355,136	854,422
Data & Flow Control	0			0		0		0		0	0	0		0	0
Collector System Support	0			0		0		0	0	0	0	0		0	0
Subtotal	1,670,240			6,430,837	0	6,430,837	0	6,430,837	0	2,850,108	9,280,945	9,280,945	1,431,000	10,711,945	4,281,108
ALLOCATED COSTS		Water	Sewer												
Treatment Headquarters	0	50.00%	50.00%	0		0		0			0	0		0	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	8,562,216	50.00%	50.00%	4,281,108		4,281,108	1,431,000	2,850,108		(2,850,108)	0	0		0	(4,281,108)
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	8,562,216			4,281,108		4,281,108	1,431,000	2,850,108	0	(2,850,108)	0	0	0	0	(4,281,108)
Total Sewer Power Costs	10,232,456			10,711,945		10,711,945	1,431,000	9,280,945	0	0	9,280,945	9,280,945	1,431,000	10,711,945	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	5,706,000	54%	4,760,597
Total NE	10,545,000		8,797,844

Test Year	
NE Class 200 including Power	9,083,967
Power Costs	286,123
NE Class 200 Excluding Power	8,797,844

Direct Expenses Only		(1) Personal Services (Class 100 & 500) $ Somallo-17	(2) Purchase of Services (Class 200) Power $ Somallo-21	(3) Sludge $	(4) Other $	(5) Total $ Somallo-18	(6) Materials & Supplies (Class 300) $ Somallo-19	(7) Equipment (Class 400) $ Somallo-20	(8) Total $	
NEWPCP		14,830,117	5,534,961	(a)	5,769,112	11,304,072	3,204,420	174,223	29,512,833	
SWWPCP		14,985,792	1,546,595	(a)	4,675,405	6,222,000	1,942,007	155,319	23,305,118	
SEWPCP		8,300,508	406,541	(a)	1,028,459	1,435,000	2,245,633	138,885	12,120,026	
(BOX 2 this page)										
Sludge Disposal (BRC)										
NEWPCP	48.7%	0	(b)	12,564,160	-	12,564,160	28,694	0	12,592,855	
SWWPCP	35.3%	0	(b)	8,030,485	-	8,030,485	20,784	0	8,051,269	
SEWPCP	16.1%	0	(b)	3,657,580	-	3,657,580	9,466	0	3,667,046	
Subtotal		0	0	24,252,225	-	24,252,225	58,944	0	24,311,170	24,311,170
						(BOX 1 this page)				
Sewer Maintenance		23,262,499	193,591	-	2,964,012	3,157,603	847,495	39,698	27,307,295	
Inlet Cleaning		10,491,401	-	-	44,170	44,170	136,987	24,146	10,696,704	
Pumping Stations										
Central Schuylkill		831,321	1,365,000	-	-	1,365,000	0	-	2,196,321	
Neill Drive		16,462	66,000	-	-	66,000	-	-	82,462	
Other		8,166,973	3,644,898	-	-	3,644,898	2,752,862	10,641	14,575,374	
Industrial Waste Unit		2,652,297	0	-	60,320	60,320	59,097	4,093	2,775,807	
Total Direct Expense		83,537,370	12,757,586	24,252,225	14,541,478	51,551,289	11,247,446	547,005	146,883,110	146,883,110
Other (Joint Use (c))		44,235,299				46,681,808	1,990,025	780,503	93,687,634	
Total		127,772,669				98,233,096	13,237,471	1,327,508	240,570,744	240,570,744
Check Total O&M		127,772,669	(Oper+FB+Indem-Dept of Rev-Law Dept)			98,233,097	13,237,471	1,327,508	240,570,745	
Less Liq. Encumbrances		na				0	0	na	0	
		127,772,669				98,233,097	13,237,471	1,327,508	240,570,745	
ERROR (see note to rt.)		(1)				(0)	(1)	0	(1)	

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

	$
Sludge Engineering Services	0
Sludge Utilization	0
Sludge Processing	24,252,225
Total	24,252,225

NOTE:
This cost includes 2016 Proposed Budget
2,090,000 of sludge barging costs from NE to BRC
for the FY 2016 budget. Use an annual inflation rate of 3.50%
times the budget adjustment factor of 78.72%
times the liq enc adjustment factor 86.75%
FY 2017 Test Year = $1,477,143

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.

		Pltdes-5	lbs	Proportion of lbs to BRC	Proportion of lbs to BRC	Estimated % lbs to BRC
Northeast Plant	Influent Flow - mgd	170				
	Influent Suspended Solids - mg/l	231	327,130	75.0%	245,347	
	Influent BOD - mg/l	150	212,757	25.0%	53,189	
					298,537	48.7%
Southwest Plant	Influent Flow - mgd	175				
	Influent Suspended Solids - mg/l	161	235,623	75.0%	176,718	
	Influent BOD - mg/l	108	158,067	25.0%	39,517	
					216,234	35.3%
Southeast Plant	Influent Flow - mgd	90				
	Influent Suspended Solids - mg/l	138	103,399	75.0%	77,549	
	Influent BOD - mg/l	112	83,748	25.0%	20,937	
					98,486	16.1%
					613,257	100.0%

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

	(1)	(2)		(3)	(4)		(5)	(6)	(7)		(8)	
	Classes 100 & 500 Personal Services			Class 220 Power			Other O&M					
	mhrs/yr (a)	Expense		Distrib. (a)	Expense		Expense	Distrib. (a)	Expense		Total	
				%			$					
Raw Wastewater Pumping	14,400	743,313		12.10	669,730			8.10	578,119		1,991,162	
Preliminary Treatment	28,000	1,445,330		0.10	5,535			12.80	913,571		2,364,436	
Primary Sedimentation	11,300	583,294		0.80	44,280			6.00	428,236		1,055,810	
Aeration	46,700	2,410,604		66.30	3,669,679			9.00	642,354		6,722,637	
Secondary Sedimentation	11,400	588,456		0.80	44,280			6.90	492,472		1,125,208	
Recirculating Pumping	8,400	433,599		2.80	154,979			2.60	185,569		774,147	
Chlorination	7,900	407,790		0.20	11,070		2,010,484	1.10	78,510		2,507,854	
Primary Sludge Pumping	2,300	118,724		0.10	5,535			1.10	78,510		202,769	
Secondary Sludge Thickening	5,600	289,066		7.50	415,122			1.30	92,785		796,973	
Sludge Digestion	44,000	2,271,233		1.70	94,094			16.90	1,206,199		3,571,526	
Sludge Holding Tanks	3,200	165,181		0.00	0			2.40	171,295		336,476	
Sludge Dewatering	8,100	418,113		1.80	99,629			1.90	135,608		653,350	
Sludge Lagoon	0	0		0.00	0			0.00	0		0	
Grit and Screening Incineration	18,000	929,141		1.60	88,559			5.40	385,413		1,403,113	
Scum and Grease Incineration	4,300	221,961		0.10	5,535			1.50	107,059		334,555	
Laboratory	14,900	769,122		0.00	0			11.60	827,923		1,597,045	
Subtotal	228,500	11,794,927		95.9	5,308,027		2,010,484	88.6	6,323,623		25,437,061	
Yardwork and A&G	58,800	3,035,190		4.10	226,934			11.40	813,648		4,075,772	Check
Subtotal	287,300	14,830,117	Somallo-22	100.00	5,534,961	Somallo-22	2,010,484	100.0	7,137,271	Somallo-22	29,512,833	29,512,833 Somallo-22
Sludge Disposal												
Contract Dewatering									(c)		0	
Biosolids Reclamation Center		0	Somallo-22		(b)		0		12,592,855	Somallo-22	12,592,855	Check
Subtotal		0			0		0		12,592,855		12,592,855	12,592,855 Somallo-22
Total O&M		14,830,117			5,534,961		2,010,484		19,730,126		42,105,687	
											0	

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	699,441	2,010,484
SWWPCP	418,046	1,201,639
SEWPCP	404,561	1,162,877
Total	$1,522,048	4,375,000

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

0

	(1)	(2)		(3)	(4)		(5)	(6)	(7)		(8)	
	Classes 100 & 500 Personal Services			Class 220 Power				Other O&M				
	mhrs/yr (a)	Expense		Distrib. (a)	Expense		Expense	Distrib. (a)	Expense		Total	
Raw Wastewater Pumping	2,500	147,614		2.10	32,479			1.05	58,496		238,589	
Preliminary Treatment	33,000	1,948,507		0.14	2,165			12.02	669,645		2,620,317	
Flocculation	6,000	354,274		6.73	104,086			6.23	347,079		805,439	
Primary Sedimentation	8,700	513,697		0.53	8,197			3.51	195,545		717,439	
Aeration	17,700	1,045,108		65.57	1,014,103			6.84	381,063		2,440,274	
Secondary Sedimentation	15,000	885,685		1.35	20,879			7.37	410,589		1,317,153	
Recirculating Pumping	5,600	330,656		3.58	55,368			3.07	171,033		557,057	
Chlorination	8,500	501,888		0.29	4,485		1,201,639	1.05	58,496		1,766,508	
Effluent Pumping	7,000	413,320		0.88	13,610			0.35	19,499		446,429	
Primary Sludge Pumping	6,400	377,892		0.08	1,237			3.95	220,058		599,187	
Secondary Sludge Thickening	5,300	312,942		8.76	135,482			0.70	38,998		487,422	
Sludge Digestion	27,000	1,594,233		2.73	42,222			9.21	513,098		2,149,553	
Sludge Holding Tanks	4,600	271,610		0.00	0			3.25	181,060		452,670	
Sludge Dewatering	21,000	1,239,959		2.00	30,932			19.47	1,084,692		2,355,583	
Sludge Lagoon	200	11,809		0.00	0			0.18	10,028		21,837	
Grit and Screening Incineration	18,500	1,092,345		1.24	19,178			4.12	229,529		1,341,052	
Scum and Grease Incineration	4,700	277,515		0.19	2,939			1.32	73,538		353,992	
Laboratory	12,800	755,785		0.00	0			7.89	439,559		1,195,344	
Subtotal	204,500	12,074,839		96.17	1,487,362		1,201,639	91.58	5,102,005		19,865,845	
Yardwork and A&G	49,300	2,910,953		3.83	59,233			8.42	469,087		3,439,273	Check
Subtotal	253,800	14,985,792	Somallo-22	100.00	1,546,595	Somallo-22	1,201,639	100.00	5,571,092	Somallo-22	23,305,118	23,305,118 Somallo-22
Sludge Disposal												
Contract Dewatering									(c)		0	
Biosolids Reclamation Center		0	Somallo-22		(b)		0		8,051,269	Somallo-22	8,051,269	Check
Subtotal		0			0		0		8,051,269		8,051,269	8,051,269 Somallo-22
Total O&M		14,985,792			1,546,595		1,201,639		13,622,361		31,356,387	
											0	

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

	(1)	(2)		(3)	(4)		(5)	(6)	(7)		(8)	
	Classes 100 & 500 Personal Services			Class 220 Power				Other O&M				
	mhrs/yr (a)	Expense		Distrib. (a)	Expense		Expense	Distrib. (a)	Expense		Total	
Raw Wastewater Pumping	13,800	796,018		22.80	92,691			6.20	139,506		1,028,215	
Preliminary Treatment	19,600	1,130,576		0.00	0			18.10	407,268		1,537,844	
Flocculation	6,000	346,095		35.10	142,696			7.60	171,008		659,799	
Primary Sedimentation	7,000	403,777		1.40	5,692			4.90	110,255		519,724	
Aeration	7,000	403,777		30.40	123,589			7.60	171,008		698,374	
Secondary Sedimentation	8,700	501,838		1.00	4,065			6.20	139,506		645,409	
Recirculating Pumping	4,200	242,266		2.40	9,757			3.70	83,254		335,277	
Chlorination	6,700	386,473		0.30	1,220		1,162,877	1.50	33,751		1,584,321	
Effluent Pumping	5,300	305,717		2.70	10,977			3.20	72,003		388,697	
Primary Sludge Pumping	5,600	323,022		0.10	407			5.80	130,506		453,935	
Waste Sludge Pumping	4,100	236,498		0.30	1,220			3.70	83,254		320,972	
Sludge Holding Tanks	2,900	167,279		0.00	0			2.90	65,253		232,532	
Scum Pumping	5,600	323,022		0.30	1,220			5.80	130,506		454,748	
Primary Sludge Transfer Pumping	2,900	167,279		2.10	8,537			2.10	47,252		223,068	
Waste Activated Sludge Xfer Pumping	2,700	155,743		1.10	4,472			2.00	45,002		205,217	
Laboratory	9,600	553,752		0.00	0			8.10	182,258		736,010	
Subtotal	111,700	6,443,132		100.0	406,543		1,162,877	89.4	2,011,590		10,024,142	
Yardwork and A&G	32,200	1,857,376		0.00	(2)			10.60	238,510		2,095,884	Check
Subtotal	143,900	8,300,508	Somallo-22	100.0	406,541	Somallo-22	1,162,877	100.0	2,250,100	Somallo-22	12,120,026	12,120,026 Somallo-22
Sludge Disposal												
Contract Dewatering									(c)		0	
Biosolids Reclamation Center		0	Somallo-22		(b)		0		3,667,046	Somallo-22	3,667,046	Check
Subtotal		0			0		0		3,667,046		3,667,046	3,667,046 Somallo-22
Total O&M		8,300,508			406,541		1,162,877		5,917,146		15,787,072	
											0	

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

Line No.	Process	(1) Treatment Plant Responsibility for Personal Services & Contributions Total $ Somallo-24	(2) SWWPCP $	(3) SEWPCP $	(4) Treatment Plant Responsibility for Purchase of Services, Mat'ls & Supp., and Equipment Total $ Somallo-24	(5) SWWPCP $	(6) SEWPCP $	(7) Treatment Plant Responsibility for Power Requirements Total $ Somallo-24	(8) SWWPCP $	(9) SEWPCP $	(10) Basis of Allocation SWWPCP %	(11) SEWPCP %
1	Raw Wastewater Pumping	147,614	147,614	0	58,496	58,496	0	32,479	32,479	0	100	0.0
2	Preliminary Treatment	1,948,507	1,948,507	0	669,645	669,645	0	2,165	2,165	0	100	0.0
3	Flocculation	354,274	354,274	0	347,079	347,079	0	104,086	104,086	0	100	0.0
4	Primary Sedimentation	513,697	513,697	0	195,545	195,545	0	8,197	8,197	0	100	0.0
5	Aeration	1,045,108	1,045,108	0	381,063	381,063	0	1,014,103	1,014,103	0	100	0.0
6	Secondary Sedimentation	885,685	885,685	0	410,589	410,589	0	20,879	20,879	0	100	0.0
7	Recirculating Pumping	330,656	330,656	0	171,033	171,033	0	55,368	55,368	0	100	0.0
8	Chlorination	501,888	501,888	0	1,260,135	1,260,135	0	4,485	4,485	0	100	0.0
9	Effluent Pumping	413,320	413,320	0	19,499	19,499	0	13,610	13,610	0	100	0.0
10	Primary Sludge Pumping	377,892	377,892	0	220,058	220,058	0	1,237	1,237	0	100	0.0
11	Secondary Sludge Thickening	312,942	312,942	0	38,998	38,998	0	135,482	135,482	0	100	0.0
12	Sludge Digestion	1,594,233	1,195,675	398,558	513,098	384,823	128,275	42,222	31,666	10,556	75.0	25.0 (d)
13	Sludge Holding Tanks	271,610	203,707	67,903	181,060	135,795	45,265	0	0	0	75.0	25.0 (d)
14	Sludge Dewatering	1,239,959	929,969	309,990	1,084,692	813,519	271,173	30,932	23,199	7,733	75.0	25.0 (d)
15	Sludge Lagoon	11,809	8,857	2,952	10,028	7,521	2,507	0	0	0	75.0	25.0 (d)
16	Grit and Screening Incineration	1,092,345	819,259	273,086	229,529	172,147	57,382	19,178	14,383	4,795	75.0	25.0 (d)
17	Scum and Grease Incineration	277,515	208,136	69,379	73,538	55,153	18,385	2,939	2,204	735	75.0	25.0 (d)
18	Laboratory	755,785	755,785	0	439,559	439,559	0	0	0	0	100	0.0
19	Subtotal	12,074,839	10,952,971	1,121,868	6,303,644	5,780,657	522,987	1,487,362	1,463,543	23,819		
20	Yardwork and A&G (a)	2,910,953	2,650,400	260,553	528,320	481,000	47,320	(b)				
21	Subtotal	14,985,792	13,603,371	1,382,421	6,831,964	6,261,657	570,307	1,487,362	1,463,543	23,819		
22	Non-Process Related Sludge Disposal	0	0	0	8,051,269	8,051,269	0	(c)				
23	Total	14,985,792	13,603,371	1,382,421	14,883,233	14,312,926	570,307	1,487,362	1,463,543	23,819		
		0	14,985,792		0	14,883,233		0	1,487,362			

(a) Allocate Total Yardwork and A&G on the basis of Line 19, sum of Columns 1 through 6.

Class 100 & 500		Power		All Other		
Somallo-24		Somallo-24		Somallo-24		
$2,910,953	+	$59,233	+	$469,087	=	$3,439,273

SWWPCP Allocated Portion

		$10,952,971	+	$5,780,657		
$2,910,953	*	----------	----------	----------	=	$2,650,400
		$12,074,839	+	$6,303,644		
		$10,952,971	+	$5,780,657		
$528,320	*	----------	----------	----------	=	$481,000
		$12,074,839	+	$6,303,644		

SEWPCP Allocated Portion

$2,910,953	-	$2,650,400	=	$260,553
$528,320	-	$481,000	=	$47,320

(b) Included in Column 4.
(c) BRC power included in SWWPCP power.
(d) Allocated between SW & SE on basis total sludge: 75.0% to SW and 25.0% to SE (BD-25).

75.0% for SW 25.0% for SE

Ref: Somallo-23 * Somallo-29

Table_WW-24

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE NORTHEAST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.		(1) Total Operation and Maintenance Expense	Retail and Cheltenham Volume	Retail and Cheltenham Capacity	(2) Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Volume	(3) Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Capacity	(4) Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Volume	(5) Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Capacity	(6) Suspended Solids	(7) BOD
		$	$	$	$	$	$	$	$	$
	Personal Services:	Somallo-23								
1	Raw Wastewater Pumping	743,313				743,313				
2	Preliminary Treatment	1,445,330					1,026,184	419,146		
3	Primary Sedimentation	583,294					583,294			
4	Aeration	2,410,604								2,410,604
5	Secondary Sedimentation	588,456					588,456			
6	Recirculating Pumping	433,599					433,599			
7	Chlorination	407,790					248,752	159,038		
8	Primary Sludge Pumping	118,724							118,724	
9	Secondary Sludge Thickening	289,066							144,533	144,533
10	Sludge Digestion	2,271,233							1,703,425	567,808
11	Sludge Holding Tanks	165,181							123,886	41,295
12	Sludge Dewatering	418,113							313,585	104,528
13	Sludge Lagoon	0								
14	Grit and Screening Incineration	929,141					622,524	306,617		
15	Scum and Grease Incineration	221,961							221,961	
16	Laboratory	769,122							384,561	384,561
17	Subtotal Personal Services	11,794,927	0	0	0	743,313	3,502,809	884,801	3,010,675	3,653,329
	Purchase of Services, Materials, Supplies, and Equipment:									
18	Raw Wastewater Pumping	578,119				578,119				
19	Preliminary Treatment	913,571						913,571		
20	Primary Sedimentation	428,236					428,236			
21	Aeration	642,354								642,354
22	Secondary Sedimentation	492,472					492,472			
23	Recirculating Pumping	185,569					185,569			
24	Chlorination	2,088,994					2,088,994			
25	Primary Sludge Pumping	78,510							78,510	
26	Secondary Sludge Thickening	92,785							46,393	46,392
27	Sludge Digestion	1,206,199							904,649	301,550
28	Sludge Holding Tanks	171,295							128,471	42,824
29	Sludge Dewatering	135,608							101,706	33,902
30	Sludge Lagoon	0								
31	Grit and Screening Incineration	385,413						385,413		
32	Scum and Grease Incineration	107,059							107,059	
33	Laboratory	827,923							413,962	413,961
34	Subtotal Purchase of Services, Materials, Supplies & Equipment	8,334,107	0	0	0	578,119	3,195,271	1,298,984	1,780,750	1,480,983
35	Subtotal All Above	20,129,034	0	0	0	1,321,432	6,698,080	2,183,785	4,791,425	5,134,312
	Administrative and General:									
36	Personal Services	3,035,190	0	0	0	191,277	901,378	227,686	774,737	940,112
37	Other	1,040,582	0	0	0	72,183	398,956	162,189	222,341	184,913
38	Subtotal Administration & General	4,075,772	0	0	0	263,460	1,300,334	389,875	997,078	1,125,025

Ref: Somallo-23 * Somallo-29

Table_WW-24

ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE FOR THE NORTHEAST WPC PLANT TO FUNCTIONAL COST COMPONENTS

Line No.		(1) Total Operation and Maintenance Expense	Retail and Cheltenham Volume	Retail and Cheltenham Capacity	(2) Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Volume	(3) Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Capacity	(4) Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Volume	(5) Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Capacity	(6) Suspended Solids	(7) BOD
		$	$	$	$	$	$	$	$	$
	Power Requirements:	Somallo-23								
39	Raw Wastewater Pumping	669,730			569,271	100,459				
40	Preliminary Treatment	5,535					4,705	830		
41	Primary Sedimentation	44,280					37,638	6,642		
42	Aeration	3,669,679								3,669,679
43	Secondary Sedimentation	44,280					37,638	6,642		
44	Recirculating Pumping	154,979					131,732	23,247		
45	Chlorination	11,070					9,410	1,660		
46	Primary Sludge Pumping	5,535							5,535	
47	Secondary Sludge Thickening	415,122							207,561	207,561
48	Sludge Digestion	94,094							70,571	23,523
49	Sludge Holding Tanks	0								
50	Sludge Dewatering	99,629							74,722	24,907
51	Sludge Lagoon	0								
52	Grit and Screening Incineration	88,559					75,275	13,284		
53	Scum and Grease Incineration	5,535							5,535	
54	Laboratory	0								
55	Subtotal Power Requirements	5,308,027	0	0	569,271	100,459	296,398	52,305	363,924	3,925,670
56	Sludge Disposal	12,592,855							9,444,641	3,148,214
57	Total Northeast WPC Plant Expense	42,105,687	0	0	569,271	1,685,351	8,294,812	2,625,965	15,597,068	13,333,221
		0	42,105,687							

Basis of Allocation

Line No.		Retail and Cheltenham Volume %	Retail and Cheltenham Capacity %	Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Volume %	Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Capacity %	Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Volume %	Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Capacity %	Solids %	BOD %	Reference
Personal Services:										PN 16281.300 - SOM-33 and 34
1	Raw Wastewater Pumping				100					
2	Preliminary Treatment					71	29			(a)
3	Primary Sedimentation					100				
4	Aeration								100	
5	Secondary Sedimentation					100				
6	Recirculating Pumping					100				
7	Chlorination					61	39			(a)
8	Primary Sludge Pumping							100		
9	Secondary Sludge Thickening							50	50	#13321.300;A-16
10	Sludge Digestion							75	25	#13321.300;A-16
11	Sludge Holding Tanks							75	25	#13321.300;A-16
12	Sludge Dewatering							75	25	#13321.300;A-16
13	Sludge Lagoon									
14	Grit and Screening Incineration					67	33			(a)
15	Scum and Grease Incineration							100		
16	Laboratory							50	50	Assume
17	Subtotal Personal Services									
Purchase of Services, Materials, Supplies, and Equipment:										
18	Raw Wastewater Pumping				100					
19	Preliminary Treatment						100			
20	Primary Sedimentation					100				
21	Aeration								100	
22	Secondary Sedimentation					100				
23	Recirculating Pumping					100				
24	Chlorination					100				
25	Primary Sludge Pumping							100		
26	Secondary Sludge Thickening							50	50	#13321.300;A-16
27	Sludge Digestion							75	25	#13321.300;A-16
28	Sludge Holding Tanks							75	25	#13321.300;A-16
29	Sludge Dewatering							75	25	#13321.300;A-16
30	Sludge Lagoon									
31	Grit and Screening Incineration						100			
32	Scum and Grease Incineration							100		
33	Laboratory							50	50	Assume
34	Subtotal Purchase of Services, Materials, Supplies & Equipment									
35	Subtotal All Above									
Administrative and General:										
36	Personal Services									Allocated on subtotal Personal Services (Line 17)
37	Other									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	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								
56	Sludge Disposal					75	25	#13321.300;A-16	
57	Total Northeast WPC Plant Expense								

(a) Assume Operation is Volume related & Maintenance is Capacity related.

	manhours (Ref. #12065, H-10.1)					
	Operation	Maintenance	Total	Operation	Maintenance	Total
	mhrs	mhrs	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.

Line No.		Total Operation and Maintenance Expense	Retail and Cheltenham Volume	Retail and Cheltenham Capacity	Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Volume	Retail, Abington Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton Capacity	Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Volume	Retail, Cheltenham, Abington Bensalem, Bucks County W&SA Lower Moreland, and Lower Southampton Capacity	Suspended Solids	BOD
		$	$	$	$	$	$	$	$	$
	Summary of Allocated O&M									
					Somallo-23&Somallo-27&Somallo-28					
1	Total Direct O&M	42,105,687	0	0	569,271	1,685,351	8,294,812	2,625,965	15,597,068	13,333,221
2	Less Direct Power	5,308,027	0	0	569,271	100,459	296,398	52,305	363,924	3,925,670
3	Less A&G Power	226,934	0	0	0	15,700	87,034	35,400	48,500	40,300
4	Less Sludge Disp. Power	0	0	0	0	0	0	0	0	0
5	Direct O&M Less Power	36,570,727	0	0	0	1,569,192	7,911,380	2,538,260	15,184,644	9,367,251

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

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	Basis of Allocation						
			Retail		Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby					Retail		Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby			
Line No.		Total Operation and Maintenance Expense	Volume	Capacity	Volume	Capacity	Suspended Solids	BOD	Reference	Volume	Capacity	Volume	Capacity	Suspended Solids	BOD
		$	$	$	$	$	$	$		%	%	%	%	%	%
Personal Services:		Somallo-26							PN 16281.300 - SOM-36 and 37						
1	Raw Wastewater Pumping	147,614		147,614							100				
2	Preliminary Treatment	1,948,507			1,422,410	526,097			(a)			73	27		
3	Flocculation	354,274			354,274							100			
4	Primary Sedimentation	513,697			513,697							100			
5	Aeration	1,045,108						1,045,108							100
6	Secondary Sedimentation	885,685			885,685							100			
7	Recirculating Pumping	330,656			330,656							100			
8	Chlorination	501,888			296,114	205,774			(a)			59	41		
9	Effluent Pumping	413,320				413,320							100		
10	Primary Sludge Pumping	377,892					377,892							100	
11	Secondary Sludge Thickening	312,942					153,342	159,600						49	51
12	Sludge Digestion	1,195,675					896,756	298,919						75	25
13	Sludge Holding Tanks	203,707					152,780	50,927						75	25
14	Sludge Dewatering	929,969					697,477	232,492						75	25
15	Sludge Lagoon	8,857					6,643	2,214						75	25
16	Grit and Screening Incineration	819,259			557,096	262,163			(a)			68	32		
17	Scum and Grease Incineration	208,136					208,136							100	
18	Laboratory	755,785					377,893	377,892	Assume					50	50
19	Subtotal Personal Services	10,952,971	0	147,614	4,359,932	1,407,354	2,870,919	2,167,152							

Purchase of Services, Materials, Supplies, and Equipment:		Somallo-26												
20	Raw Wastewater Pumping	58,496		58,496						100				
21	Preliminary Treatment	669,645				669,645						100		
22	Flocculation	347,079			347,079						100			
23	Primary Sedimentation	195,545			195,545						100			
24	Aeration	381,063						381,063						100
25	Secondary Sedimentation	410,589			410,589						100			
26	Recirculating Pumping	171,033			171,033						100			
27	Chlorination	1,260,135			1,260,135						100			
28	Effluent Pumping	19,499				19,499						100		
29	Primary Sludge Pumping	220,058					220,058						100	
30	Secondary Sludge Thickening	38,998					19,109	19,889					49	51
31	Sludge Digestion	384,823					288,617	96,206					75	25
32	Sludge Holding Tanks	135,795					101,846	33,949					75	25
33	Sludge Dewatering	813,519					610,139	203,380					75	25
34	Sludge Lagoon	7,521					5,641	1,880					75	25
35	Grit and Screening Incineration	172,147				172,147						100		
36	Scum and Grease Incineration	55,153					55,153						100	
37	Laboratory	439,559					219,780	219,779	Assume				50	50
38	Subtotal Purchase of Services, Materials, Supplies & Equipment	5,780,657	0	58,496	2,384,381	861,291	1,520,343	956,146						
39	Subtotal All Above	16,733,628	0	206,110	6,744,313	2,268,645	4,391,262	3,123,298						
Administrative and General:		Somallo-26												
40	Personal Services	2,650,400	0	35,720	1,055,016	340,552	694,705	524,407	Allocated on subtotal Personal Services (Line 17)					
41	Other	481,000	0	4,867	198,401	71,667	126,505	79,560	Allocated on subtotal Purchase of Services, Etc. (Line 34)					
42	Subtotal Administration & General	3,131,400	0	40,587	1,253,417	412,219	821,210	603,967						

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

		(1)	(2)	(3)	(4)	(5)	(6)	(7)		Basis of Allocation						
			Retail		Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby					Retail		Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby				
Line No.		Total Operation and Maintenance Expense	Volume	Capacity	Volume	Capacity	Suspended Solids	BOD	Reference	Volume	Capacity	Volume	Capacity	Suspended Solids	BOD
		$	$	$	$	$	$	$		%	%	%	%	%	%
Power Requirements:		Somallo-26													
43	Raw Wastewater Pumping	32,479	27,607	4,872					(b)	85	15				
44	Preliminary Treatment	2,165			1,840	325			(b)			85	15		
45	Flocculation	104,086			88,473	15,613			(b)			85	15		
46	Primary Sedimentation	8,197			6,967	1,230			(b)			85	15		
47	Aeration	1,014,103						1,014,103							100
48	Secondary Sedimentation	20,879			17,747	3,132			(b)			85	15		
49	Recirculating Pumping	55,368			47,063	8,305			(b)			85	15		
50	Chlorination	4,485			3,812	673			(b)			85	15		
51	Effluent Pumping	13,610			11,569	2,041			(b)			85	15		
52	Primary Sludge Pumping	1,237					1,237							100	
53	Secondary Sludge Thickening	135,482					66,386	69,096						49	51
54	Sludge Digestion	31,666					23,750	7,916						75	25
55	Sludge Holding Tanks	0					0	0						75	25
56	Sludge Dewatering	23,199					17,399	5,800						75	25
57	Sludge Lagoon	0					0	0	(b)					75	25
58	Grit and Screening Incineration	14,383			12,226	2,157						85	15		
59	Scum and Grease Incineration	2,204					2,204							100	
60	Laboratory	0					0	0						50	50
61	Subtotal Power Requirements	1,463,543	27,607	4,872	189,697	33,476	110,976	1,096,915							
		Somallo-24													
62	Sludge Disposal	8,051,269					6,038,452	2,012,817						75	25
63	Total Southwest WPC Plant Expense	29,379,840	27,607	251,569	8,187,427	2,714,340	11,361,900	6,836,997							
		0	29,379,840												

(a) Assume Operation is Volume related & Maintenance is Capacity related.

	manhours (Ref. #12065, H-11.1)					
	Operation	Maintenance	Total	Operation	Maintenance	Total
	mhrs	mhrs	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.

Rangename: SWCOS03T

Line No.		Total Operation and Maintenance Expense	Retail Volume	Retail Capacity	Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby Volume	Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby Capacity	Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby Suspended Solids	Retail, DELCORA, Lower Merion Springfield (w/o Wyndmoor) and Upper Darby BOD
		$	$	$	$	$	$	$
	Summary of Allocated O&M							
					Somallo-26&Somallo-31&Somallo-32			
1	Total Direct O&M	29,379,840	27,607	251,569	8,187,427	2,714,340	11,361,900	6,836,997
2	Less Direct Power	1,463,543	27,607	4,872	189,697	33,476	110,976	1,096,915
3	Less A&G Power	53,928	0	546	22,244	8,035	14,183	8,920
4	Less Sludge Disp. Power	0	0	0	0	0	0	0
5	Direct O&M Less Power	27,862,369	0	246,151	7,975,486	2,672,829	11,236,741	5,731,162

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) Volume $	(3) Capacity $	(4) Suspended Solids $	(5) BOD $	Reference	Basis of Allocation: Retail and Springfield (Wyndmoor) Volume %	Capacity %	Suspended Solids %	BOD %
Personal Services:		Somallo-25 & Somallo-26					PN 16281.300 - SOM-39 and 40				
1	Raw Wastewater Pumping	796,018		796,018					100		
2	Preliminary Treatment	1,130,576	814,015	316,561			(a)	72	28		
3	Flocculation	346,095	346,095					100			
4	Primary Sedimentation	403,777	403,777					100			
5	Aeration	403,777				403,777					100
6	Secondary Sedimentation	501,838	501,838					100			
7	Recirculating Pumping	242,266	242,266					100			
8	Chlorination	386,473	243,478	142,995			(a)	63	37		
9	Effluent Pumping	305,717		305,717					100		
10	Primary Sludge Pumping	323,022			323,022					100	
11	Waste Sludge Pumping	236,498			201,023	35,475				85	15
12	Secondary Sludge Thickening	0									
13	Sludge Digestion	398,558			338,774	59,784				85	15
14	Sludge Holding Tanks	235,182			199,905	35,277				85	15
15	Sludge Dewatering	309,990			263,492	46,498				85	15
16	Sludge Lagoon	2,952			2,509	443				85	15
17	Grit and Screening Incineration	273,086	185,698	87,388			(a)	68	32		
18	Scum and Grease Incineration	69,379			69,379					100	
19	Scum Pumping	323,022			323,022					100	
20	Primary Sludge Transfer Pumping	167,279			167,279					100	
21	Waste Activated Sludge Xfer Pumping	155,743			132,382	23,361				85	15
22	Laboratory	553,752			276,876	276,876	Assume			50	50
23	Subtotal Personal Services	7,565,000	2,737,167	1,648,679	2,297,663	881,491					

Purchase of Services, Materials, Supplies, and Equipment:											
24	Raw Wastewater Pumping	139,506		139,506					100		
25	Preliminary Treatment	407,268		407,268					100		
26	Flocculation	171,008	171,008					100			
27	Primary Sedimentation	110,255	110,255					100			
28	Aeration	171,008				171,008					100
29	Secondary Sedimentation	139,506	139,506					100			
30	Recirculating Pumping	83,254	83,254					100			
31	Chlorination	1,196,628	1,196,628					100			
32	Effluent Pumping	72,003		72,003					100		
33	Primary Sludge Pumping	130,506			130,506					100	
34	Waste Sludge Pumping	83,254			70,766	12,488				85	15
35	Secondary Sludge Thickening	0									
36	Sludge Digestion	128,275			109,034	19,241				85	15
37	Sludge Holding Tanks	110,518			93,940	16,578				85	15
38	Sludge Dewatering	271,173			230,497	40,676				85	15
39	Sludge Lagoon	2,507			2,131	376				85	15
40	Grit and Screening Incineration	57,382		57,382					100		
41	Scum and Grease Incineration	18,385			18,385					100	
42	Scum Pumping	130,506			130,506					100	
43	Primary Sludge Transfer Pumping	47,252			47,252					100	
44	Waste Activated Sludge Xfer Pumping	45,002			38,252	6,750				85	15
45	Laboratory	182,258			91,129	91,129	Assume			50	50
46	Subtotal Purchase of Services, Materials, Supplies & Equipment	3,697,454	1,700,651	676,159	962,398	358,246					
47	Subtotal All Above	11,262,454	4,437,818	2,324,838	3,260,061	1,239,737					
Administrative and General:											
48	Personal Services	2,117,929	766,309	461,571	643,263	246,786	Allocated on subtotal Personal Services (Line 23)				
49	Other	285,830	131,468	52,270	74,398	27,694	Allocated on subtotal Purchase of Services, Etc. (Line 46)				
50	Subtotal Administration & General	2,403,759	897,777	513,841	717,661	274,480					

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) Volume $	(3) Capacity $	(4) Suspended Solids $	(5) BOD $	Basis of Allocation: Reference	Retail and Springfield (Wyndmoor) Volume %	Capacity %	Suspended Solids %	BOD %
Power Requirements:		Somallo-25 & Somallo-26									
51	Raw Wastewater Pumping	92,691	78,787	13,904			(b)	85	15		
52	Preliminary Treatment	0	0	0			(b)	85	15		
53	Flocculation	142,696	121,292	21,404			(b)	85	15		
54	Primary Sedimentation	5,692	4,838	854			(b)	85	15		
55	Aeration	123,589				123,589					100
56	Secondary Sedimentation	4,065	3,455	610			(b)	85	15		
57	Recirculating Pumping	9,757	8,293	1,464			(b)	85	15		
58	Chlorination	1,220	1,037	183			(b)	85	15		
59	Effluent Pumping	10,977	9,330	1,647			(b)	85	15		
60	Primary Sludge Pumping	407			407					100	
61	Waste Sludge Pumping	1,220			1,037	183				85	15
62	Secondary Sludge Thickening	0									
63	Sludge Digestion	10,556			8,973	1,583				85	15
64	Sludge Holding Tanks	0									
65	Sludge Dewatering	7,733			6,573	1,160				85	15
66	Sludge Lagoon	0									
67	Grit and Screening Incineration	4,795	4,076	719			(b)	85	15		
68	Scum and Grease Incineration	735			735					100	
69	Scum Pumping	1,220			1,220					100	
70	Primary Sludge Transfer Pumping	8,537			8,537					100	
71	Waste Activated Sludge Xfer Pumping	4,472			3,801	671				85	15
72	Laboratory	0									
73	Subtotal Power Requirements	430,362	231,108	40,785	31,283	127,186					
74	Sludge Disposal	3,667,046			3,116,989	550,057				85	15
75	Total Southeast WPC Plant Expense	17,763,621	5,566,703	2,879,464	7,125,994	2,191,460					
		2	17,763,621								

(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.

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	17,763,621	5,566,703	2,879,464	7,125,994	2,191,460
2	Less Direct Power	430,362	231,108	40,785	31,283	127,186
3	Less A&G Power	5,305	2,440	970	1,381	514
4	Less Sludge Disp. Power	0	0	0	0	0
5	Direct O&M Less Power	17,327,954	5,333,155	2,837,709	7,093,330	2,063,760
			17,327,954			

TABLE WW - 10A

ALLOCATION OF TEST YEAR OPERATION AND MAINTENANCE EXPENSE FOR THE COLLECTION SYSTEM TO FUNCTIONAL COST COMPONENTS

Line No.		(1) Total	(2) All Customers Capacity	(3) Retail Volume	(4) Retail Capacity	(5) Storm Capacity	(6) Retail and Lower Merion Volume	(7) Retail and Lower Merion Capacity	(8) Retail & Springfield (excluding Wyndmoor) Volume	(9) Retail & Springfield (excluding Wyndmoor) Capacity	(10) Direct to Bucks County	Allocation Basis Volume	Allocation Basis Capacity
		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000		
		Somallo-22									Somallo-23		
1	Sewer Maintenance	27,307	27,307										
2	Inlet Cleaning	10,697				10,697							
	Pump Stations												
	Neill Drive												
3	Power	66.0					56.0	10.0				85	15
4	Other	16.5						16.5					
	Central Schuylkill												
5	Power	1,365							1,160	205		85	15
6	Other	831								831			
	All Other Pumping Stations												
7	Power	3,645		3,098	547							85	15
8	Other	10,930			10,930						0		
9	Total Collection System	54,858	27,307	3,098	11,477	10,697	56	27	1,160	1,036	0		

Total Operating Expense from COS Table ($)	261,166,620
Total Operating Expense in this page ($1,000)	$261,165
ROUNDING ERROR - INCLUDE ON LINE 1 TOTAL !!!	($2)
USE ==>	0
Test Cell ==>	$54,858

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 aligned.

Sewer Maint		27,307	27,307	Somallo-22
General Fund - Sewer Maint		259	259	Somallo-38
A&G - Sewer Maint		14,286	14,286	
Inlet Cleaning	10,697	10,697	10,697	Above
General Fund - Inlet Cleaning		779	779	Somallo-38
Pump Stations				
Neill Drive				
Power		66	66	Above
Other		17	17	Above
Central Schuylkill				
Power		1,365	1,365	Above
Other		831	831	Above
All Other Pumping Stations				
Power		3,645	3,645	
Other		10,930	10,930	Above
Bucks County Direct		0	0	
Total Water Pollution Control Plants		89,445	89,445	Somallo-39
Total Customer Costs		35,264	35,264	Somallo-39
Subtotal	194,891		194,891	
A&G		84,471	84,471	
State and Federal Grants		0	0	Somallo-39
All Other Op./Non-Op. Income	(10,459)		(10,459)	Somallo-55
Interest Income			(361)	
				Somallo-55
Subtotal	268,903		268,542	279,001
Less Water Treatment Plant Sludge Allocated to Water Utility and To Be Deducted from Retail COS		Retcos!P800/1000	(7,377)	Retcos-16
Total Operating Expense in this file			261,165	2
			279,001	

NOT IN USE

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) Total	(2) A&G	(3) A&G Volume	(4) A&G Plant Investment	(5) Equivalent Bills-All Customers	(6) Streets	(7) Direct to Excess Strength	(8) Equivalent Meters-All Customers	(9) Equivalent Services ≤2" Meter Customers	(10) Wastewater Collection	(11) Direct to Stormwater
		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
		Somallo-4										
1	Water Revenue Bureau	17,353				17,353						
	(Class 100...Class 500)	Somallo-38	This page			This page						
2	Joint Direct Expense (Class 100...Class 500) (a)											
	Human Resources	16,928	16,928									
	Finance and Administration	21,395	3,936			2,968					13,293	1,198
	Public Affairs	7,026	3,736	1,658		1,175					457	0
	Planning & Engineering - Watersheds	16,492	14,933								536	1,023
	Planning & Engineering - BLS	9,888	9,888									
	Planning & Engineering - P&R (incl E & ES)	9,965	0		9,965							
	Information Science & Tech.											
	CBIS	4,869				4,869						
	All Other	7,124	0	7,124								
	Total IST	11,993	0	7,124	0	4,869	0	0	0	0	0	0
	Meter Shop Class 200 - AMR	928				928						
	Operations Cust. Svcs. Classes 100...500 (all)	2,974							2,974			
	Warranty Program Class 264	0							0			
	Subtotal	97,589	49,421	8,782	9,965	9,940	0	0	2,974	0	14,286	2,221
	Plus Residual Fund Deposit	14,038	14,038									
	Plus Deposit From (To) RSF	(13,758)	(13,758)									
2	Joint Direct Expense (Class 100...Class 500) (a)	97,869	49,701	8,782	9,965	9,940	0	0	2,974	0	14,286	2,221
		Somallo-4										
3	Payment to Law Department	3,105	3,105									
		Somallo-4				(Payment to Public Properties (b) * 0.00)						
4	Payment to Public Properties (b)	2,563	2,563			0						
		Somallo-4					(Payment to General Fund * 20.2%,)					
5	Payment to General Fund	6,115	4,880				1,235					
	Somallo-17, Somallo-18,							(Industrial Waste Unit (c) * 0.33)				
6	Fleet, Mayors Office, Procurement	5,475	5,475									
7	Industrial Waste Unit (c)	2,776						916	1,860			
	Somallo-19, Somallo-20											
	Total	135,256	65,724	8,782	9,965	27,293	1,235	916	4,834	0	14,286	2,221
			A&G			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 $280,000.0 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		100.0%			0.0%						
	(c) Industrial Waste Unit							33.0%	67.0%			

Allocation of Payment to General Fund - Streets

	Percent	FY 2017 Test Year $1,000
	PN 19289.100 SI-101	
Sewer Maintenance		
All Customers - Capacity	21.0%	259
Inlet Cleaning		
Retail - Storm Capacity	63.0%	779
Northeast Plant:		
Retl, Abington, Bensalem, Bucks Cty W&SA Cheltenham, Lower Moreland, and Lower Southampton		
Suspended Solids	5.3%	65
Southwest Plant:		
Retail, DELCORA, Lower Merion, Springfld (Excluding Wyndmoor), and Upper Darby		
Suspended Solids	5.4%	67
Southeast Plant:		
Retail and Springfield (Wyndmoor)		
Suspended Solids	5.3%	65
Total Payment to General Fund - Streets		1,235

Customer Cost Allocation

	Wastewater			Stormwater		
	Class 100 Direct $	Overheads Calc from Somallo-17 $	Classes 200...400 $	Class 100 Direct $	Overheads Calc from Somallo-17 $	Classes 200...400 $
Information Science & Technology						
CBIS	212,980	205,646	2,458,783	147,392	142,316	1,701,595
All Other	1,843,851	1,780,354	3,500,550	0	0	0
Total	2,056,831	1,986,000	5,959,333	147,392	142,316	1,701,595
Water Revenue Bureau						
Meter Reading	0	0		0	0	
All Other	6,439,157	10,252,439		4,456,201	7,100,474	
		Somallo-4 & Somallo-5			Somallo-4 & Somallo-5	
Total	6,439,157	10,252,400		4,456,201	7,095,200	
Finance & Admin - Customer						
Customer Costs			1,754,215			1,214,000
Customer Affairs - Customer						
Customer Costs			694,280			480,475

TABLE WH - 2

TEST YEAR OPERATION AND MAINTENANCE EXPENSE
SUMMARY OF ALLOCATIONS TO FUNCTIONAL COST COMPONENTS

Line No.		(1) Direct Operation & Maintenance Expense	(2) Administr. & General Expense	(3) Total Operation & Maintenance Expense	(4) O&M Expense Deductions: Less Interest Income	(5) O&M Expense Deductions: Less State and Federal Grants (a)	(6) Net Operation & Maintenance Expense	(7) Allocation of Administrative and General Expense: Direct Operation & Maintenance Expense	(8) Power Expense	(9) Treatment Plant A&G Power Expense	(10) Sludge Disposal Power	(11) Direct O&M Less Power Expense	(12) Allocation of Admin. & General Expense	(13) Allocation of Admin. & General Expense Volume	(13) Allocation of Admin. & General Expense Plant Invest
		$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	(12)+(13)	(1)+(2)	Prorate #VALUE! on (3)	Prorate on #VALUE! on (3)	(3)-(4)-(5)	(1)	Somallo-30, Somallo-33, Somallo-36, & Somallo-37	Somallo-30, Somallo-33, & Somallo-36	Somallo-30, Somallo-33, & Somallo-36	(7)-(8)-(9)-(10)	Prorate Somallo-38 on (11)	Prorate Somallo-38 on (11) Excl Customer	Prorate Somallo-38 on Plant
	COLLECTION SYSTEM														
	Sewer Maintenance														
1	All Customers - Capacity	41,852	24,120	65,972	85		65,887	41,852				41,852	15,086	2,499	6,535
	Inlet Cleaning														
2	Retail - Storm Capacity	11,476	4,822	16,298	21		16,277	11,476				11,476	4,137	685	0
	Neill Drive Pumping Station														
	Retail and Lower Merion														
3	Total Volume	56	0	56	0		56	56	56			0	0	0	0
4	Total Capacity	26.5	16	42.5	0		42.5	27	10			17	6	1	9
	Central Schuykill Pumping Station														
	Retail and Springfield (excl. Wyndmoor)														
5	Total Volume	1,160	0	1,160	1		1,159	1,160	1,160			0	0	0	0
6	Total Capacity	1,036	407	1,443	2		1,441	1,036	205			831	300	50	57
	All Other Pumping Stations														
	Retail														
7	Total Volume	3,098	0	3,098	4		3,094	3,098	3,098			0	0	0	0
8	Total Capacity	11,477	4,677	16,154	21		16,133	11,477	547			10,930	3,940	653	84
9	Direct to Bucks County	0	0	0	0		0	0				0	0	0	0
10	Total Collection Systems	70,182	34,042	104,224	134	0	104,090	70,182	5,076	0	0	65,106	23,469	3,888	6,685
	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														
11	Volume	569	0	569	1	0	568	569	569	0	0	0	0	0	0
12	Capacity	1,685	689	2,374	3	0	2,371	1,685	100	16	0	1,569	566	94	29
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton														
13	Volume	8,295	3,669	11,964	15	0	11,949	8,295	296	87	0	7,912	2,852	472	345
14	Capacity	2,626	1,205	3,831	5	0	3,826	2,626	52	35	0	2,539	915	152	138
15	Suspended Solids	15,662	6,782	22,444	29	0	22,415	15,662	364	49	0	15,249	5,497	911	374
16	BOD	13,333	4,403	17,736	23	0	17,713	13,333	3,926	40	0	9,367	3,377	559	467
	Southwest Plant:														
	Retail														
17	Volume	28	0	28	0	0	28	28	28	0	0	0	0	0	0
18	Capacity	252	191	443	1	0	442	252	5	1	0	246	89	15	87

	Retail, DELCORA, Lower Merion, Springfield														
	(Excluding Wyndmoor), and Upper Darby														
19	Volume	8,187	3,714	11,901	15	0	11,886	8,187	190	22	0	7,975	2,875	476	363
20	Capacity	2,714	1,246	3,960	5	0	3,955	2,714	33	8	0	2,673	964	160	122
21	Suspended Solids	11,429	5,053	16,482	23	0	16,459	11,429	111	14	0	11,304	4,072	674	307
22	BOD	6,837	2,688	9,525	12	0	9,513	6,837	1,097	9	0	5,731	2,066	342	280
	Southeast Plant:														
	Retail and Springfield (Wyndmoor)														
23	Volume	5,567	2,494	8,061	10	0	8,051	5,567	231	2	0	5,334	1,923	319	252
24	Capacity	2,879	1,433	4,312	6	0	4,306	2,879	41	1	0	2,837	1,023	169	241
25	Suspended Solids	7,191	3,145	10,336	13	0	10,323	7,191	31	1	0	7,159	2,581	428	136
26	BOD	2,191	1,006	3,197	4	0	3,193	2,191	127	1	0	2,063	744	123	139
27	Total Water Pollution Control Plants	89,445	37,718	127,163	165	0	126,998	89,445	7,201	286	0	81,958	29,544	4,894	3,280
	CUSTOMER COSTS														
	All Customers														
28	Equivalent Bills	27,293	9,838	37,131	48		37,083	27,293				27,293	9,838		
	Equivalent Meters														
29	Industrial Waste Unit	1,860	670	2,530	3		2,527	1,860				1,860	670		
30	Other	2,974	1,072	4,046	5		4,041	2,974				2,974	1,072		
31	Warranty Program (Retail Customers with ≤ 2" meters)	0	0	0	0		0	0				0	0		
32	Excess Strength Wastewater - Direct	916	330	1,246	2		1,244	916				916	330		
33	Stormwater - Direct	2,221	801	3,022	4		3,018	2,221				2,221	801		
34	Total Customer Costs	35,264	12,711	47,975	62	0	47,913	35,264	0	0	0	35,264	12,711	0	0
35	Total Operation and Maintenance Expense	194,891	84,471	279,362	361	0	279,001	194,891	12,277	286	0	182,328	65,724	8,782	9,965

(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: 279,000,675 - 10,819,809 + 0 - 7,377,127 = 271,428,597

Total O&M to be derived from rates from Financial Plan Cost of Service equals 261,166,620

Check: Column (1) + Column (2) = 279,361,675

Total O&M Revenue Requirements from Financial Plan = 279,558,507

196,832

TABLE 0

UNIT PUMPING AND TREATMENT OPERATION AND MAINTENANCE EXPENSE APPLICABLE FOR CONTRACT SERVICE

Test Year 2017

Line No.		(1) Net Operating Expense $1,000	(2) Projected Test Year Units of Service		(3) Unit Operating Expense $/unit	Total Volume Units Incl. I/I Mcf	Total Volume Units Excl. I/I Mcf	Adjusted Unit Operating Expense $/unit
	PUMPING STATIONS	Somallo-39				Units-2	Units-2	
	Neill Drive Pumping Station	Col (6)						
	Retail and Lower Merion		Units-5					
1	Total Volume	56	69,650	Mcf	0.8040	374,900	360,000	0.8373
2	Total Capacity	42.5	370	Mcf/day	114.8649	2,788	2,728	117.3913
	Central Schuykill Pumping Station							
	Retail and Springfield (excl. Wyndmoor)							
3	Total Volume	1,159	2,715,700	Mcf	0.4268	162,200	160,000	0.4327
4	Total Capacity	1,441	22,110	Mcf/day	65.1741	407	397	66.8158
5	All Other Pumping Stations - Direct to Bucks County	0	Direct		Direct	-	-	Direct
	WATER POLLUTION CONTROL PLANTS							
	Northeast Plant:							
	Retail and Cheltenham							
	Volume	0	NA	Mcf	0.000000	359,800	350,000	0.0000
	Capacity	0	NA	Mcf/day	0.000000	1,833	1,793	0.0000
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton							
6	Volume	568	6,138,000	Mcf	0.0925	1,528,500	1,473,000	0.0960
7	Capacity	2,371	38,310	Mcf/day	61.8898	10,346	10,126	63.2344
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton		Units-4 & Units-7					
8	Volume	11,949	8,295,000	Mcf	1.4405	1,888,300	1,823,000	1.4921
9	Capacity	3,826	51,770	Mcf/day	73.9038	12,179	11,919	75.5159
10	Suspended Solids	22,415	106,130	1,000 lbs	211.2027	19,856	19,449	215.6224
11	BOD	17,713	74,123	1,000 lbs	238.9677	18,551	18,449	240.2889
	Southwest Plant:							
	Retail							
12	Volume	28	NA	Mcf	0.000000	NA	NA	
13	Capacity	442	NA	Mcf/day	0.000000	NA	NA	
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby		Units-4 & Units-7					
14	Volume	11,886	8,539,000	Mcf	1.3920	1,023,700	990,000	1.4394
15	Capacity	3,955	53,293	Mcf/day	74.2124	6,289	6,149	75.9021
16	Suspended Solids	16,459	76,444	1,000 lbs	215.3083	10,219	10,008	219.8477
17	BOD	9,513	55,069	1,000 lbs	172.7469	9,028	8,976	173.7477
	Southeast Plant:							
	Retail and Springfield (Wyndmoor)		Units-4 & Units-7					
18	Volume	8,051	4,392,000	Mcf	1.8331	19,900	19,000	1.9199
19	Capacity	4,306	27,410	Mcf/day	157.0960	167	167	157.0960
20	Suspended Solids	10,323	33,550	1,000 lbs	307.6900	136	130	321.8911
21	BOD	3,193	29,181	1,000 lbs	109.4205	101	100	110.5147

NA - Not Applicable
Mcf - thousand cubic feet
Mcf/day - thousand cubic feet per day
lbs - pounds

TABLE WH - 18

OPERATING EXPENSE ALLOCATED TO ABINGTON TOWNSHIP

Test Year 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $
	Collection System:	Spltallo-28						
1	Sewer Maintenance (a)	490,000	x	3.80%		18,620	0	18,620
		Operating Expense Per Unit Somallo-40		Test Yr. No. of Units Units-2				
	NE Treatment Plants:							
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton							
2	Volume	0.0925	$/Mcf	104,500	Mcf	9,666		9,666
3	Capacity	61.8898	$/Mcf/day	844	Mcf/day	52,235		52,235
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
4	Volume	1.4405	$/Mcf	104,500	Mcf	150,532		150,532
5	Capacity	73.9038	$/Mcf/day	844	Mcf/day	62,375		62,375
6	Suspended Solids	211.2027	$/1,000 lbs	1,126	1,000 lbs	237,814		237,814
7	BOD	238.9677	$/1,000 lbs	1,105	1,000 lbs	264,059		264,059
8	Customer Costs					13,800		13,800
9	Total Treatment					809,101	0	809,101
				System Amortized Cost	Allocation			
	SMIP/GARP O&M Costs							
10	Amortization of SMIP/GARP Expenses (a)			653,622	0.58244%	3,807		3,807
11	Total Annual Operating Expense					812,908		812,908
12	Total - Rounded					813,000		813,000

Ref: JRM-1 Filing of 01/2004.

(a) Based on investment in sewers serving Abington.

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

CUSTOMER COSTS FOR TOWNSHIP CUSTOMERS

Contract Customer	(1) No. of Customers Metered: Standardized	(2) No. of Customers Metered: Not Standardized	(3) Estimated Total No. of Samples Collected (c)	(4) Sampling Cost $	(5) Billing Cost (b) $	(6) Calibration & Certification: Number of Sites	(7) Calibration & Certification: Billing Cost (d) $
	(Ref. PN 13321.300; B-31)			Col. (3)*(a)			Col. (6)*(d)
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 Southhampton		1	32	3,200	6,500	1	6,500
Springfield (Excld. Wy	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

(b) $80 (Ref. PN 16281.300; SOM-59) for FY1992. For FY 2015 Test Year, USE: 100

(b) $5000 (Ref. PN 16281.300; SOM-59) for FY1992. For FY 2017 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

TABLE WH - 19

OPERATING EXPENSE ALLOCATED TO BENSALEM TOWNSHIP
Test Year 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-36							
1	Sewer Maintenance (a)	1,110,000	x	3.80%		42,180	0	42,180	
		Operating Expense Per Unit		Test Yr. No. of Units					
	NE Treatment Plants: Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton	Somallo-40		Units-2					Ref: Column (3)
2	Volume	0.0925	$/Mcf	180,600	Mcf	16,706		16,706	
3	Capacity	61.8898	$/Mcf/day	1,034	Mcf/day	63,994		63,994	
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton								
4	Volume	1.4405	$/Mcf	180,600	Mcf	260,154		260,154	
5	Capacity	73.9038	$/Mcf/day	1,034	Mcf/day	76,417		76,417	
6	Suspended Solids	211.2027	$/1,000 lbs	2,274	1,000 lbs	480,275		480,275	
7	BOD	238.9677	$/1,000 lbs	2,488	1,000 lbs	594,552		594,552	
8	Customer Costs					49,400	0	49,400	49,400
9	Total					1,583,678	0	1,583,678	
10	Total - Rounded					1,584,000	0	1,584,000	Ref: JRM-1 Filing of 01/2004.

(a) Based on investment in sewers serving Bensalem.

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

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.

	Somallo-39	
Total Collection System (Sewer Mains) O&M = $1,000	52,679	Excludes SMIP & GARP
Total Collection System (Sewer Mains) Investment =	Spltallo-5	
Mains (a) = $1,000	1,360,184	
FHL Interceptors = $1,000	3,679	
Total - $1,000	1,363,863	

(a) Includes Stormwater Investment.

Ratio =	3.86%
Use	3.80%

		Adjusted O&M Expense
1	Abbington	813,000
2	Bensalem	1,584,000
3	Bucks County	6,762,000
4	Cheltenham	2,019,000
5	DELCORA	7,505,000
6	Lower Merion	2,250,000
7	Lower Moreland	451,000
8	Lower Southampton	2,111,000
9	Springfield (less W)	1,093,000
10	Springfield	136,000
11	Upper Darby	2,655,000
		27,379,000

TABLE WH - 20

OPERATING EXPENSE ALLOCATED TO BUCKS COUNTY W&SA
Test Year 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-37							
1	Sewer Maintenance (a)	1,566,000	x	3.80%		59,508	0	59,508	
2	Direct to Bucks County					0			
		Operating Expense Per Unit		Test Yr. No. of Units					
	NE Treatment Plants:	Somallo-40		Units-2					
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton								Ref: Column (3)
3	Volume	0.0925	$/Mcf	905,100	Mcf	83,722		83,722	
4	Capacity	61.8898	$/Mcf/day	6,556	Mcf/day	405,750		405,750	
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton								
5	Volume	1.4405	$/Mcf	905,100	Mcf	1,303,797		1,303,797	
6	Capacity	73.9038	$/Mcf/day	6,556	Mcf/day	484,513		484,513	
7	Suspended Solids	211.2027	$/1,000 lbs	9,937	1,000 lbs	2,098,721		2,098,721	
8	BOD	238.9677	$/1,000 lbs	9,664	1,000 lbs	2,309,384		2,309,384	
9	Customer Costs					16,200	0	16,200	16,200
10	Total					6,761,595	0	6,761,595	
11	Total - Rounded					6,762,000	0	6,762,000	

(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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-29							
1	Sewer Maintenance (a)	349,000	x	3.80%		13,262	0	13,262	
		Operating Expense Per Unit		Test Yr. No. of Units					
	NE Treatment Plants:	Somallo-40		Units-2					
	Retail and Cheltenham								
2	Volume	NA	$/Mcf	359,800	Mcf	0	0	0	0
3	Capacity	NA	$/Mcf/day	1,833	Mcf/day	0	0	0	0
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton								Basis For Adjustment - Not Required
4	Volume	1.4405	$/Mcf	359,800	Mcf	518,292		518,292	
5	Capacity	73.9038	$/Mcf/day	1,833	Mcf/day	135,466		135,466	
6	Suspended Solids	211.2027	$/1,000 lbs	3,162	1,000 lbs	667,823		667,823	
7	BOD	238.9677	$/1,000 lbs	2,723	1,000 lbs	650,709		650,709	
8	Customer Costs					33,700		33,700	
9	Total					2,019,252	0	2,019,252	
10	Total - Rounded					2,019,000	0	2,019,000	

(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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $ Spltallo-31		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:								
1	Sewer Maintenance (a)	705,000	x	3.80%		26,790	0	26,790	
		Operating Expense Per Unit Somallo-40		Test Yr. No. of Units Units-2					
	NE Treatment Plants:								
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton								Ref: Column (3)
2	Volume	0.0925	$/Mcf	60,800	Mcf	5,624		5,624	
3	Capacity	61.8898	$/Mcf/day	518	Mcf/day	32,059		32,059	
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton								
4	Volume	1.4405	$/Mcf	60,800	Mcf	87,582		87,582	
5	Capacity	73.9038	$/Mcf/day	518	Mcf/day	38,282		38,282	
6	Suspended Solids	211.2027	$/1,000 lbs	614	1,000 lbs	129,678		129,678	
7	BOD	238.9677	$/1,000 lbs	453	1,000 lbs	108,252		108,252	
8	Customer Costs					20,700	0	20,700	20,700
9	Total Treatment					448,967	0	448,967	
				System Amortized Cost	Allocation				
	SMIP/GARP O&M Costs								
10	Amortization of SMIP/GARP Expenses (a)			653,622	0.35883%	2,345		2,345	
11	Total Annual Operating Expense					451,312		451,312	
10	Total - Rounded					451,000	0	451,000	

(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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-32							
1	Sewer Maintenance (a)	10,220,000	x	3.80%		388,360	0	388,360	
		Operating Expense Per Unit		Test Yr. No. of Units					
	NE Treatment Plants:	Somallo-40		Units-2					
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton								Ref: Column (3)
2	Volume	0.0925	$/Mcf	277,500	Mcf	25,669		25,669	
3	Capacity	61.8898	$/Mcf/day	1,394	Mcf/day	86,274		86,274	
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton								
4	Volume	1.4405	$/Mcf	277,500	Mcf	399,739		399,739	
5	Capacity	73.9038	$/Mcf/day	1,394	Mcf/day	103,022		103,022	
6	Suspended Solids	211.2027	$/1,000 lbs	2,743	1,000 lbs	579,329		579,329	
7	BOD	238.9677	$/1,000 lbs	2,118	1,000 lbs	506,134		506,134	
8	Customer Costs					16,200	0	16,200	16,200
9	Total Treatment					2,104,727	0	2,104,727	
				System Amortized Cost	Allocation				
	SMIP/GARP O&M Costs								
10	Amortization of SMIP/GARP Expenses (a)			653,622	0.96412%	6,302		6,302	
11	Total Annual Operating Expense					2,111,029	0	2,111,029	
12	Total - Rounded					2,111,000	0	2,111,000	

(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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $ Spltallo-38		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $		
	Sewer Maintenance	0	x	3.80%		0	0	0		
	SW Treatment Plants:	Operating Expense Per Unit Somallo-40		Test Yr. No. of Units Units-2					Operating Expense Per Unit	Column (3)
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby									
1	Volume	1.3920	$/Mcf	1,200,000	Mcf	1,670,400		1,670,400	1.3920	
2	Capacity	74.2124	$/Mcf/day	13,392	Mcf/day	993,852		993,852	74.2124	
3	Suspended Solids	215.3083	$/1,000 lbs	13,104	1,000 lbs	2,821,400		2,821,400	215.3083	
4	BOD	172.7469	$/1,000 lbs	11,082	1,000 lbs	1,914,381		1,914,381	172.7469	
5	Customer Costs					43,000		43,000		
6	Total Treatment					7,443,033	0	7,443,033		
				System Amortized Cost	Allocation					
	SMIP/GARP O&M Costs									
7	Amortization of SMIP/GARP Expenses (a)			653,622	9.44287%	61,721		61,721		
8	Total Annual Operating Expense					7,504,754	0	7,504,754		
7	Total - Rounded					7,505,000	0	7,505,000		

	Amortization Annual
2015	0
2016	653,622
2017	653,622
2018	653,622
2019	3,613,033
2020	3,613,033
2021	3,613,033
2022	3,613,033

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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-33							
1	Sewer Maintenance (a)	768,000	x	3.80%		29,184	0	29,184	
		Operating Expense Per Unit		Test Yr. No. of Units					
	Central Schuylkill Pump Station	Somallo-40		Units-2					
	Retail and Springfield (excluding Wyndmoor)								Basis For Adjustment - Not Required
2	Volume	0.4268	$/Mcf	162,200	Mcf	69,227		69,227	
3	Capacity	65.1741	$/Mcf/day	407	Mcf/day	26,526		26,526	
	SW Treatment Plants:								
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby								
4	Volume	1.3920	$/Mcf	162,200	Mcf	225,782		225,782	
5	Capacity	74.2124	$/Mcf/day	407	Mcf/day	30,204		30,204	
6	Suspended Solids	215.3083	$/1,000 lbs	1,711	1,000 lbs	368,393		368,393	
7	BOD	172.7469	$/1,000 lbs	1,800	1,000 lbs	310,944		310,944	
8	Customer Costs					27,200		27,200	
9	Total Treatment					1,087,460	0	1,087,460	
				System Amortized Cost	Allocation				
	SMIP/GARP O&M Costs								
10	Amortization of SMIP/GARP Expenses (a)			653,622	0.79320%	5,185		5,185	
11	Total Annual Operating Expense					1,092,645	0	1,092,645	
10	Total - Rounded					1,093,000	0	1,093,000	

(a) Based on investment in sewers serving Springfield (excl. Wyndmoor).

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

TABLE WH - 23

OPERATING EXPENSE ALLOCATED TO LOWER MERION TOWNSHIP
Test Year 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-30							
1	Sewer Maintenance (a)	1,808,000	x	3.80%		68,704	0	68,704	
		Operating Expense Per Unit		Test Yr. No. of Units					
	Neill Drive Pump Station	Somallo-40		Units-2					
	Retail and Lower Merion								Basis For Adjustment - Not Required
2	Volume	0.8040	$/Mcf	14,700	Mcf	11,819		11,819	
3	Capacity	114.8649	$/Mcf/day	115	Mcf/day	13,209		13,209	
	SW Treatment Plants:								
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby								
4	Volume	1.3920	$/Mcf	374,900	Mcf	521,861		521,861	
5	Capacity	74.2124	$/Mcf/day	2,788	Mcf/day	206,904		206,904	
6	Suspended Solids	215.3083	$/1,000 lbs	3,800	1,000 lbs	818,172		818,172	
7	BOD	172.7469	$/1,000 lbs	3,213	1,000 lbs	555,036		555,036	
8	Customer Costs					53,900		53,900	
9	Total					2,249,605	0	2,249,605	
10	Total - Rounded					2,250,000	0	2,250,000	

(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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-39							
1	Sewer Maintenance (a)	723,000	x	3.80%		27,474	0	27,474	
		Operating Expense Per Unit		Test Yr. No. of Units					
	SW Treatment Plants:	Somallo-40		Units-2					
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby								Basis For Adjustment - Not Required
2	Volume	1.3920	$/Mcf	486,600	Mcf	677,347		677,347	
3	Capacity	74.2124	$/Mcf/day	3,094	Mcf/day	229,613		229,613	
4	Suspended Solids	215.3083	$/1,000 lbs	4,708	1,000 lbs	1,013,671		1,013,671	
5	BOD	172.7469	$/1,000 lbs	4,015	1,000 lbs	693,579		693,579	
6	Customer Costs					13,800		13,800	
7	Total					2,655,484	0	2,655,484	
8	Total - Rounded					2,655,000	0	2,655,000	

(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 2017

Line No.	COST COMPONENT	(1) Allocated Investment $		(2)		(3) Allocated Operating Expense $	(4) Adjustment for Contract $	(5) Total Adjusted Operating Expense $	
	Collection System:	Spltallo-35							
1	Sewer Maintenance (a)	331,000	x	3.80%		12,578	0	12,578	
	SE Treatment Plants:	Operating Expense Per Unit Somallo-40		Test Yr. No. of Units Units-2					
	Retail, Springfield (Wyndmoor)								Basis For Adjustment - Not Required
2	Volume	1.8331	$/Mcf	19,900	Mcf	36,479		36,479	
3	Capacity	157.0960	$/Mcf/day	167	Mcf/day	26,235		26,235	
4	Suspended Solids	307.6900	$/1,000 lbs	136	1,000 lbs	41,846		41,846	
5	BOD	109.4205	$/1,000 lbs	101	1,000 lbs	11,051		11,051	
6	Customer Costs					7,700		7,700	
7	Total					135,889	0	135,889	
8	Total - Rounded					136,000	0	136,000	

(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	Total	
		$	$	$	$	$	$	$	$	$	$	$	$	$	
	COLLECTION SYSTEM	Somallo-41	Somallo-42	Somallo-44	Somallo-45	Somallo-46	Somallo-47	Somallo-48	Somallo-50	Somallo-49	Somallo-51	Somallo-52		2,015	
	Sewer Maintenance														
1	All Customers - Capacity (Includes SMIP/GARP)	22,427	42,180	59,508	13,262	29,135	394,662	61,721	68,704	34,369	27,474	12,578	766,020	722,800	105.98%
	Inlet Cleaning														
2	Retail - Storm Capacity												0	0	
	Pumping Stations														
3	Total Volume								11,819	69,227			81,046	63,076	128.49%
4	Total Capacity								13,209	26,526			39,735	35,994	110.39%
5	Direct to Bucks County			0									0	0	#DIV/0!
6	Total Collection System	22,427	42,180	59,508	13,262	29,135	394,662	61,721	93,732	130,122	27,474	12,578	886,801	821,870	107.90%
7	Total Coll. System Rounded to $1,000	22,000	42,000	60,000	13,000	29,000	395,000	62,000	94,000	130,000	27,000	13,000	887,000	822,000	107.91%
	WATER POLLUTION CONTROL PLANTS														
	Northeast Plant:														
	Retail and Cheltenham														
8	Volume				0								0	0	
9	Capacity				0								0	0	
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton														
10	Volume	9,666	16,706	83,722		5,624	25,669						141,387	143,250	98.70%
11	Capacity	52,235	63,994	405,750		32,059	86,274						640,312	601,460	106.46%
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton														
12	Volume	150,532	260,154	1,303,797	518,292	87,582	399,739						2,720,096	2,866,635	94.89%
13	Capacity	62,375	76,417	484,513	135,466	38,282	103,022						900,075	756,845	118.92%
14	Suspended Solids	237,814	480,275	2,098,721	667,823	129,678	579,329						4,193,640	4,317,655	97.13%
15	BOD	264,059	594,552	2,309,384	650,709	108,252	506,134						4,433,090	3,923,571	112.99%
16	Total Northeast Plant	776,681	1,492,098	6,685,887	1,972,290	401,477	1,700,167	0	0	0	0	0	13,028,600	12,609,416	103.32%

	Southwest Plant:														
	Retail														
17	Volume														
18	Capacity														
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby														
19	Volume							1,670,400	521,861	225,782	677,347		3,095,390	3,056,375	101.28%
20	Capacity							993,852	206,904	30,204	229,613		1,460,573	1,222,014	119.52%
21	Suspended Solids							2,821,400	818,172	368,393	1,013,671		5,021,636	4,492,561	111.78%
22	BOD							1,914,381	555,036	310,944	693,579		3,473,940	4,238,110	81.97%
23	Total Southwest Plant	0	0	0	0	0	0	7,400,033	2,101,973	935,323	2,614,210	0	13,051,539	13,009,060	100.33%
	Southeast Plant:														
	Retail and Springfield (Wyndmoor)														
24	Volume											36,479	36,479	43,137	84.57%
25	Capacity											26,235	26,235	25,033	104.80%
26	Suspended Solids											41,846	41,846	31,636	132.27%
27	BOD											11,051	11,051	12,813	86.25%
28	Total Southeast Plant	0	0	0	0	0	0	0	0	0	0	115,611	115,611	112,619	102.66%
29	Total Water Pollution Control Plants	776,681	1,492,098	6,685,887	1,972,290	401,477	1,700,167	7,400,033	2,101,973	935,323	2,614,210	115,611	26,195,750	25,731,095	101.81%
30	Total WPCP Rounded to $1,000	777,000	1,492,000	6,686,000	1,972,000	401,000	1,700,000	7,400,000	2,102,000	935,000	2,614,000	116,000	26,195,000	25,731,000	101.80%
31	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	295,600	100.00%
32	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	296,000	100.00%
33	Total Allocated O&M	812,908	1,583,678	6,761,595	2,019,252	451,312	2,111,029	7,504,754	2,249,605	1,092,645	2,655,484	135,889	27,378,151	26,848,565	101.97%
34	Total Rounded From Somallo-44	813,000	1,584,000	6,762,000	2,019,000	451,000	2,111,000	7,505,000	2,250,000	1,093,000	2,655,000	136,000	27,379,000	26,848,000	

SMIP/GARP

TABLE 0

OPERATION AND MAINTENANCE EXPENSE ALLOCATED TO RETAIL SERVICE CUSTOMERS TEST YEAR 2017

Line No.		(1) Net Operation and Maintenance Expense $1,000 Somallo-39	(2) Less Operation and Maintenance Expense Allocated to Contract Service $1,000 Somallo-53 Somallo-41	(3) Operation and Maintenance Expense Allocated to Retail Service $1,000 (1)-(2)	(4) Less Retail Operation & Maintenance Expense Deductions: Other Operating Revenue $1,000 Prorate Somallo-55 on Col. (3)	(5) Net Operation and Maintenance Expense To Be Allocated To Retail Service $1,000 (3)-(4)	Net Operation and Maintenance Expense $1,000 Somallo-39
	COLLECTION SYSTEM						
	Sewer Maintenance						
1	All Customers - Capacity	65,887	767	65,120	2,613	62,507	65,887
	Inlet Cleaning						
2	Retail - Storm Capacity	16,277		16,277	653	15,624	16,277
	Neill Drive Pumping Station						
	Retail and Lower Merion						
3	Total Volume	56	12	44	2	42	56
4	Total Capacity	43	13	30	1	29	43
	Central Schuylkill Pumping Station						
	Retail and Springfield (excl. Wyndmoor)						
5	Total Volume	1,159	69	1,090	44	1,046	1,159
6	Total Capacity	1,441	27	1,414	57	1,357	1,441
	All Other Pumping Stations						
	Retail						
7	Total Volume	3,094		3,094	124	2,970	3,094
8	Total Capacity	16,133		16,133	647	15,486	16,133
9	Direct to Bucks County	0	0	0	0	0	
10	Total Collection Systems	104,090	888	103,202	4,141	99,061	104,090
	WATER POLLUTION CONTROL PLANTS						
	Northeast Plant:						
	Retail and Cheltenham						
11	Volume	0	0	0	0	0	0
12	Capacity	0	0	0	0	0	0
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton						
13	Volume	568	141	427	17	410	568
14	Capacity	2,371	640	1,731	69	1,662	2,371
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton						
15	Volume	11,949	2,720	9,229	370	8,859	11,949
16	Capacity	3,826	900	2,926	117	2,809	3,826
17	Suspended Solids	22,415	4,194	18,221	732	17,489	22,415
18	BOD	17,713	4,433	13,280	533	12,747	17,713
	Southwest Plant:						
	Retail						
19	Volume	28	0	28	1	27	28
20	Capacity	442	0	442	18	424	442

	Retail, DELCORA, Lower Merion, Springfield							
	(Excluding Wyndmoor), and Upper Darby							
21	Volume	11,886	3,095	8,791	353	8,438	11,886	
22	Capacity	3,955	1,461	2,494	100	2,394	3,955	
23	Suspended Solids	16,459	5,022	11,437	459	10,978	16,459	
24	BOD	9,513	3,474	6,039	242	5,797	9,513	
	Southeast Plant:							
	Retail and Springfield (Wyndmoor)							
25	Volume	8,051	36	8,015	322	7,693	8,051	
26	Capacity	4,306	26	4,280	172	4,108	4,306	
27	Suspended Solids	10,323	42	10,281	413	9,868	10,323	
28	BOD	3,193	11	3,182	128	3,054	3,193	
29	Total Water Pollution Control Plants	126,998	26,195	100,803	4,046	96,757	126,998	
	CUSTOMER COSTS							
	All Customers							
30	Equivalent Bills	37,083	228	36,855	1,479	35,376	37,083	
	Equivalent Meters							
31	Industrial Waste Unit	2,527	68	2,459	99	2,360	2,527	
32	Other	4,041		4,041	162	3,879	4,041	
33	Warranty Program (Retail Customers with ≤ 2" meters)	0		0	0	0	0	
34	Excess Strength Wastewater - Direct	1,244		1,244	50	1,194	1,244	
35	Stormwater - Direct	3,018		3,018	121	2,897	3,018	
36	Total Customer Costs	47,913	296	47,617	1,911	45,706	47,913	
37	Total Operation and Maintenance Expense	279,001	27,379	251,622	10,098	241,524	279,001	
		279,001	27,379	251,622	10,098	241,524	10,098	Sewer Liquidated Encumbrances + Column (4) Total
							268,903	261,167

SCOS15_17.XLS

RETCOS

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
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	
RTLCCALLO	Allocation Of Capital Costs To Retail Service	Retcos-15	
RTLCOS	Retail Cost Of Service	Retcos-16	
RTLCOSSUM	Retail Cost Of Service Summary	Retcos-17	
XXXXX	PAGE NOT IN USE	Retcos-18	
RTLCOLL	Allocation Of O&M Expense To Retail Service - Collection System	Retcos-19	
GSCOS	General Service Excluding Senior Citizens Cost Of Service	Retcos-20	
RTLIICST	Estimated Infiltration/Inflow Costs for Inside City Retail Service	Retcos-21	
RTLSINVEST	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.

Future Years Beyond Projection Period

Update Table	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Test Year
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
O&M Portion of Line Below	6,970,589	7,023,280	7,377,127	7,902,286	8,654,994	9,120,613	9,838,049	10,444,608	10,758,917	11,159,026	11,664,982	12,177,614	12,719,995	13,226,234	13,808,776	7,377,127
Water Treatment Plant Sludge	10,447,550	10,453,302	10,951,693	11,677,838	12,308,651	12,997,941	14,040,883	14,889,773	15,533,749	15,779,904	16,735,602	17,792,065	18,868,570	19,622,335	21,022,731	
SW Allocation	40.7%	40.5%	40.9%	40.8%	40.3%	40.3%	40.4%	40.4%	40.6%	40.4%	40.5%	40.8%	40.9%	40.9%	41.2%	40.9%

Table last updated: Sunday, December 06, 2015 - 6:22:47 AM

Previous Allocations

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Prev O&M Iteration's Values	6,970,589	7,023,280	7,377,127	7,902,286	8,654,994	9,120,613	9,838,049	10,444,608	10,758,917	11,159,026	11,664,982	12,177,614	12,719,995	13,226,234	13,808,776
Previous Iteration's Values	10,447,550	10,453,302	10,951,693	11,677,838	12,308,651	12,997,941	14,040,883	14,889,773	15,533,750	15,779,904	16,735,602	17,792,065	18,868,570	19,622,462	21,022,731
SW Allocation	40.7%	40.5%	40.9%	40.8%	40.3%	40.3%	40.4%	40.4%	40.6%	40.4%	40.5%	40.8%	40.9%	40.9%	41.2%

Customer Class	Test Year Mcf	Capacity Flow Rate: Collection System Mcf/day	Capacity Flow Rate: Pumping and Treatment Mcf/day	Strength: Suspended Solids 1,000 lbs	Strength: BOD 1,000 lbs	Equivalent Bills	Customer: Equivalent Meters	Equivalent Service	Bills
	Units-6	Units-6	Units-6	Units-6	Units-6	Units-6	Units-6	Units-6	Units-6
Residential	2,998,153	32,858	12,321	56,125	52,384	4,892,702	421,071	407,392	4,880,004
Commercial	1,175,524	12,882	4,831	22,006	20,539	444,908	71,996	34,963	405,540
Industrial	80,974	887	333	1,516	1,415	15,023	3,711	1,127	12,444
Public Utilities	9,205	101	38	172	161	2,498	989	126	1,488
Senior Citizens	106,023	1,162	436	1,985	1,852	242,093	20,181	20,174	242,088
Wastewater Only	40,530	444	167	759	708	1,238	374	67	792
Groundwater	190,000	4,164	1,301	830	119	0	0	0	0
Surcharge	0	0	0	2,577	12,688	0	0	0	0
Housing Authority	162,408	1,780	667	3,040	2,838	72,122	8,142	5,704	69,132
Charities & Schools	188,510	2,066	775	3,529	3,294	48,530	17,711	2,267	30,000
Hospital/University	276,560	3,031	1,137	5,177	4,832	15,675	8,404	237	5,172
Hand Bill	466,334	5,111	1,916	8,730	8,148	9,378	5,134	124	2,964
Scheduled (Flat Rate)	20	0	0	0	0	24	2	2	24
Water Treatment Plant Sludge	341,600	3,744	1,404	15,000	0	0	0	0	0
Fire Meters	2,660	29	11	50	46	1,134	297	81	888
City Leased Properties	4,099	45	17	77	72	840	353	43	480
City	220,400	2,415	906	4,126	3,851	21,998	10,561	899	10,344
Subtotal Retail Sanitary	6,263,000	70,719	26,260	125,699	112,947	5,768,163	568,926	473,205	5,661,360
I/I	10,831,100	237,395	74,186	47,298	6,757				
Total Retail Service	17,094,100	308,114	100,446	172,997	119,704	5,768,163	568,926	473,205	5,661,360
Contract Service:	Units-13	Units-13	Units-13	Units-13	Units-13				
Sanitary	4,032,000	31,627	31,627	42,691	38,607				
I/I	99,900	400	400	436	62				
Total	4,131,900	32,027	32,027	43,127	38,669				
Total System	21,226,000	340,141	132,473	216,124	158,373				

(a) Adjusted to exclude 5% not entering sewers.

OPERATION AND MAINTENANCE EXPENSE ALLOCATED TO RETAIL SERVICE CUSTOMERS

Test Year 2017

Line No.		(1) Net Operation & Maintenance Expense $1,000 Somallo-54	(2) Operation and Maintenance Expense Allocated to Contract Service $1,000 Somallo-54	(3) Operation and Maintenance Expense Allocated to Retail Service $1,000 (1)-(2)	(4) Retail O&M Expense Deductions - Other Operating Revenue $1,000 Prorate on Col. (3)	(5) Net O&M Expense To Be Allocated To Retail Service $1,000 (3)-(4)
	COLLECTION SYSTEM					
	Sewer Maintenance					
1	All Customers - Capacity	65,887	767	65,120	2,698	62,422
	Inlet Cleaning					
2	Retail - Storm Capacity	16,277	0	16,277	674	15,603
	Neill Drive Pumping Station					
	Retail and Lower Merion					
3	Total Volume	56	12	44	2	42
4	Total Capacity	43	13	30	1	29
	Central Schuykill Pumping Station					
	Retail and Springfield (excl. Wyndmoor)					
5	Total Volume	1,159	69	1,090	45	1,045
6	Total Capacity	1,441	27	1,414	59	1,355
	All Other Pumping Stations					
	Retail					
7	Total Volume	3,094	0	3,094	128	2,966
8	Total Capacity	16,133	0	16,133	668	15,465
9	Direct to Bucks County	0	0	0	0	0
10	Total Collection Systems	104,090	888	103,202	4,275	98,927
	WATER POLLUTION CONTROL PLANTS					
	Northeast Plant:					
	Retail and Cheltenham					
11	Volume	0	0	0	0	0
12	Capacity	0	0	0	0	0
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton					
13	Volume	568	141	427	18	409
14	Capacity	2,371	640	1,731	72	1,659
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton					
15	Volume	11,949	2,720	9,229	385	8,844
16	Capacity	3,826	900	2,926	122	2,804
17	Suspended Solids	22,415	4,194	18,221	761	17,460
18	BOD	17,713	4,433	13,280	556	12,724

	Southwest Plant:					
	Retail					
19	Volume	28	0	28	1	27
20	Capacity	442	0	442	19	423
	Retail, DELCORA, Lower Merion, Springfield					
	(Excluding Wyndmoor), and Upper Darby					
21	Volume	11,886	3,095	8,791	368	8,423
22	Capacity	3,955	1,461	2,494	105	2,389
23	Suspended Solids	16,459	5,022	11,437	482	10,955
24	BOD	9,513	3,474	6,039	254	5,785
	Southeast Plant:					
	Retail and Springfield (Wyndmoor)					
25	Volume	8,051	36	8,015	332	7,683
26	Capacity	4,306	26	4,280	178	4,102
27	Suspended Solids	10,323	42	10,281	426	9,855
28	BOD	3,193	11	3,182	132	3,050
29	Total Water Pollution Control Plants	126,998	26,195	100,803	4,211	96,592
	CUSTOMER COSTS					
	All Customers					
30	Equivalent Bills	37,083	228	36,855	1,527	35,328
	Equivalent Meters					
31	Industrial Waste Unit	2,527	68	2,459	102	2,357
32	Other	4,041	0	4,041	167	3,874
33	Warranty Program (Retail Customers with ≤ 2" meters)	0	0	0	0	0
34	Excess Strength Wastewater - Direct	1,244	0	1,244	52	1,192
35	Stormwater - Direct	3,018	0	3,018	125	2,893
36	Total Customer Costs	47,913	296	47,617	1,973	45,644
					Somallo-54	
37	Total Operation and Maintenance Expense	279,001	27,379	251,622	10,459	241,163
		279,001	27,379	251,622	10,459	241,524

TEST YEAR DEPRECIATION

Line No.	Cost Component	(1) Total Investment	(2) Less Contrib. Plant	(3) Less Land	(4) Depreciable Plant	(5) Annual Depreciation Rate	(6) Annual Depreciation	(7) Less Contrib. Plant	(8) Less Land
		$	$	$	$	$	$	$1,000	$1,000
		Spltallo-24	(7) * 1,000	(8) * 1,000	(1) - (2) - (3)		(4) * (5)	Spltallo-44	Spltallo-44
	Collection System								
1	Sewers-Capacity	1,353,850,362	14,338,000	1,816,000	1,337,696,362	2.0%	26,753,927	14,338	1,816
2	Pumping Stations Capacity	32,011,000	190,000		31,821,000	2.5%	795,525	190	0
3	LTCP Investment	37,079,000	0		37,079,000	2.0%	741,580	0	0
4	Total Collection System	1,422,940,362	14,528,000	1,816,000	1,406,596,362		28,291,032		
	Water Pollution Control Plants								
	Northeast Plant								
	Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton								
5	Volume	73,476,000	11,057,000	259,000	62,160,000			11,057	259
6	Capacity	35,583,000	4,926,000	125,000	30,532,000			4,926	125
7	Suspended Solids	79,566,000	9,824,000	280,000	69,462,000			9,824	280
8	BOD	99,436,000	17,265,000	350,000	81,821,000			17,265	350
9	Total Northeast Plant	288,061,000	43,072,000	1,014,000	243,975,000	2.5%	6,099,375		
	Southwest Plant								
	Retail, DELCORA, Lower Merion, Springfield (excl. Wyndmoor), & Upper Darby								
10	Volume	77,203,000	30,018,000	231,000	46,954,000			30,018	231
11	Capacity	44,514,000	9,121,000	133,000	35,260,000			9,121	133
12	Suspended Solids	65,439,000	14,902,000	196,000	50,341,000			14,902	196
13	BOD	59,490,000	24,970,000	178,000	34,342,000			24,970	178
14	Total Southwest Plant	246,646,000	79,011,000	738,000	166,897,000	2.5%	4,172,425		
	Southeast Plant								
	Retail & Springfield (Wyndmoor)								
15	Volume	53,656,000		55,000	53,601,000			0	55
16	Capacity	51,242,000		53,000	51,189,000			0	53
17	Suspended Solids	28,912,000		30,000	28,882,000			0	30
18	BOD	29,504,000		30,000	29,474,000			0	30
19	Total Southeast Plant	163,314,000		168,000	163,146,000	2.5%	4,078,650		
20	Total Allocated Treatment Plants	698,021,000	122,083,000	1,920,000	574,018,000	2.5%	14,350,450		
21	Total Allocated System Investment	2,120,961,362	136,611,000	3,736,000	1,980,614,362		42,641,482		

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	100%	36%	64%
(including LTCP Investment)	Retcos-6		
	$1,368,610,000	$492,699,600	$875,910,400 (a)
	Retcos-4		
Less Land	$1,816,000		
Retail Depreciable Sewer Investment	$1,366,794,000	$492,045,800	$874,748,200

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%
	Retcos-3		
Retail Sewer Maintenance O&M - Capacity	$62,422,000	$24,968,800	37,453,200
	Retcos-3		
Inlet Cleaning O&M - Capacity	$15,603,000		15,603,000
Total Collection System	$78,025,000	$24,968,800	$53,056,200
Equivalent Bills - All Customers			
	This page	This page	This page
Customer O&M - Equivalent Bills	$35,328,144	$21,370,000	$13,958,144

(a) Excludes estimated local stormwater contributions of $10,012,638.

Summary of Customer O&M Allocated Between Sanitary and Stormwater Utilities

Equivalent Bills - All Customers	Total $	Sanitary Equiv. Bills $ Somallo-38	Stormwater Equiv. Bills $ Somallo-38	
Water Revenue Bureau	17,347,000	10,252,000	7,095,000	
Joint Direct Expense				
CBIS	4,868,000	2,877,000	1,991,000	
Other Joint Direct Expense				Assigned to A&G (Not a direct customer cost)
Payment to Public Properties	0	0		
Meter Shop Class 200 - AMR	928,175	928,175		
Finance & Admin - Customer	2,968,215	1,754,215	1,214,000	
Customer Affairs - Customer	1,174,755	694,280	480,475	
Subtotal	27,286,144	16,505,669	10,780,475	
Total Including Allocated A&G and Deduction of Other Operating Revenue	Retcos-3			
Prorated on Subtotal Above	35,328,144	21,370,000	13,958,144	

AVERAGE TEST YEAR DEPRECIABLE PLANT ALLOCABLE TO CONTRACT CUSTOMERS

Line No.	Cost Component	(1) Total Investment $ (8) * 1,000	(2) Investment Allocated to Contract Service $ (9) * 1,000	(3) Investment to Be Allocated To Retail Service $ (1) - (2)	(4) Contract Customer Land excl. Contributed Plant $ (10) * 1,000	(5) Contract Cust. Depreciable Plant incl. Contributed Plant $ (2) - (4)	(6) Contributed Plant (incl. land) $ (11) * 1,000	(7) Contract Customer Depreciable Plant $ (5) - (6)	(8) Total Investment $ Spltallo-45	(9) Investment Allocated to Contract Service $ Spltallo-45	(10) Contract Customer Land excl. Contributed Plant $ Spltallo-45	(11) Contributed Plant (incl. land) $ Spltallo-45	(12) Investment Allocated to Contract Service $ Spltallo-45
	Collection System												
1	Sewers-Capacity	1,353,850,000	17,818,000	1,336,032,000		17,818,000	14,338,000	3,480,000	1,353,850	17,818		14,338	3,480
2	Pumping Stations Capacity	32,011,000	252,000	31,759,000		252,000	190,000	62,000	32,011	252		190	62
3	LTCP Investment	37,079,000	4,501,000	32,578,000		4,501,000	0	4,501,000	37,079	4,501		0	4,501
4	Total Collection System	1,422,940,000	22,571,000	1,400,369,000		22,571,000	14,528,000	8,043,000	1,422,940				
	Water Pollution Control Plants												
	Northeast Plant												1,292
	Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton												
5	Volume	73,476,000	20,424,000	53,052,000	16,400	20,407,600	11,102,000	9,305,600	73,476	20,424		11,102	20,424
6	Capacity	35,583,000	7,669,000	27,914,000	8,600	7,660,400	4,946,000	2,714,400	35,583	7,669		4,946	6,377
7	Suspended Solids	79,566,000	15,014,000	64,552,000	20,000	14,994,000	9,863,000	5,131,000	79,566	15,014		9,863	15,014
8	BOD	99,436,000	25,166,000	74,270,000	23,000	25,143,000	17,333,000	7,810,000	99,436	25,166		17,333	25,166
9	Total Northeast Plant	288,061,000	68,273,000	219,788,000	68,000	68,205,000	43,244,000	24,961,000	288,061		68		
	Southwest Plant												
	Retail, DELCORA, Lower Merion, Springfield (excl. Wyndmoor), & Upper Darby												0
10	Volume	77,203,000	32,964,000	44,239,000	2,500	32,961,500	30,114,000	2,847,500	77,203	32,964		30,114	32,964
11	Capacity	44,514,000	9,551,000	34,963,000	2,000	9,549,000	9,151,000	398,000	44,514	9,551		9,151	9,551
12	Suspended Solids	65,439,000	17,461,000	47,978,000	2,700	17,458,300	14,950,000	2,508,300	65,439	17,461		14,950	17,461
13	BOD	59,490,000	27,439,000	32,051,000	1,800	27,437,200	25,049,000	2,388,200	59,490	27,439		25,049	27,439
14	Total Southwest Plant	246,646,000	87,415,000	159,231,000	9,000	87,406,000	79,264,000	8,142,000	246,646		9		
	Southeast Plant												
	Retail & Springfield (Wyndmoor)												
15	Volume	53,656,000	488,000	53,168,000	1,000	487,000		487,000	53,656	488	1		488
16	Capacity	51,242,000	286,000	50,956,000	0	286,000		286,000	51,242	286			286
17	Suspended Solids	28,912,000	90,000	28,822,000	0	90,000		90,000	28,912	90			90
18	BOD	29,504,000	81,000	29,423,000	0	81,000		81,000	29,504	81			81
19	Total Southeast Plant	163,314,000	945,000	162,369,000	1,000	944,000		944,000	163,314				
20	Total Allocated Treatment Plants	698,021,000	156,633,000	541,388,000	78,000	156,555,000	122,508,000	34,047,000	698,021				
21	Total Allocated System Investment	2,120,961,000	179,204,000	1,941,757,000	78,000	179,126,000	137,036,000	42,090,000	2,120,961				

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 $
		Retcos-4	Spltallo-46	(1) - (2)
	Collection System			
1	Sewers-Capacity	1,337,696,362	3,480,000	1,334,216,362
2	Pumping Stations Capacity	31,821,000	62,000	31,759,000
3	LTCP Investment	37,079,000	4,501,000	32,578,000
4	Total Collection System	1,406,596,362	8,043,000	1,398,553,362
	Water Pollution Control Plants			
	Northeast Plant			
	Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton			
5	Volume	62,160,000	9,306,000	52,854,000
6	Capacity	30,532,000	2,714,000	27,818,000
7	Suspended Solids	69,462,000	5,131,000	64,331,000
8	BOD	81,821,000	7,810,000	74,011,000
9	Total Northeast Plant	243,975,000	24,961,000	219,014,000
	Southwest Plant			
	Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), & Upper Darby			
10	Volume	46,954,000	2,847,000	44,107,000
11	Capacity	35,260,000	398,000	34,862,000
12	Suspended Solids	50,341,000	2,508,000	47,833,000
13	BOD	34,342,000	2,389,000	31,953,000
14	Total Southwest Plant	166,897,000	8,142,000	158,755,000
	Southeast Plant			
	Retail & Springfield (Wyndmoor)			
15	Volume	53,601,000	487,000	53,114,000
16	Capacity	51,189,000	286,000	50,903,000
17	Suspended Solids	28,882,000	90,000	28,792,000
18	BOD	29,474,000	81,000	29,393,000
19	Total Southeast Plant	163,146,000	944,000	162,202,000
20	Total Allocated Treatment Plants	574,018,000	34,047,000	539,971,000
21	Total Allocated System Investment	1,980,614,362	42,090,000	1,938,524,362

Inside City Rate of Return:	5.16%
Sewer Depr. Rate:	2.0%
Trtmt Plant Depr. Rate:	2.5%
Outside City Rate of Return	7.5%

Debt	5.25%	49.40%	2.59%	1,669,810,000	49.4%
Equity	8.90%	50.60%	4.50%	1,710,387,709	50.6%
RISK Adjustment			0.38%		
Total			7.47%	3,380,197,709	
			OC	3,380,197,709	
			Accum Depr	0	
			OCLD	3,380,197,709	

UNIT COSTS OF RETAIL WASTEWATER SERVICE
Test Year 2017

Line No.		(1) Total	(2) Collection System: Pumping Station Volume	(3) Collection System: Pumping Station Capacity	(4) Collection System: Sanitary Sewers - Capacity	(5) Collection System: Storm Costs	(6) Water Pollution Control Plants: Volume	(7) Water Pollution Control Plants: Capacity	(8) Water Pollution Control Plants: Suspended Solids	(9) Water Pollution Control Plants: BOD	(10) Customer Costs: Meter Costs	(11) Customer Costs: Billing: Sanitary	(12) Customer Costs: Billing: Stormwater	(13) Customer Costs: Industrial Waste Unit: Retail Customers	(14) Customer Costs: Industrial Waste Unit: Direct Excess Strength Wastewater	(15) Customer Costs: Stormwater
	Total Units of Service															
1	Units		Mcf	Mcf/day	Mcf/day	Equiv. Meters	Mcf	Mcf/day	1,000 lbs.	1,000 lbs.	Equivalent Meters	Equivalent Bills	Equivalent Bills	Equivalent Meters	$	Equivalent Meters
2	Quantity Retcos-2		17,094,100	100,446	308,114	568,629	17,094,100	100,446	172,997	119,704	568,924	5,768,163	5,768,163	568,926		568,926
	Operation and Maintenance Expense		Retcos-3	Retcos-3	Retcos-5	Retcos-5	Retcos-3	Retcos-3	Retcos-3	Retcos-3	Retcos-3	Retcos-5	Retcos-5	Retcos-3	Retcos-3	
3	Total Expense - $	241,162,675	4,053,000	16,848,500	24,968,800	53,056,200	25,386,000	11,377,000	38,270,031	21,559,000	3,874,000	21,370,000	13,958,144	2,357,000	1,192,000	2,893,000
4	Unit Expense - $/unit		0.2371	167.7369	81.0375	93.3055	1.4851	113.2648	221.2176	180.1026	6.8093	3.7048	2.4199	4.1429		5.0850
		98,926,500														
	Capital Costs			Retcos-6	Retcos-5	Retcos-5 (b)	Retcos-6	Retcos-6	Retcos-6	Retcos-6						
5	Total Plant Investment - $	1,941,757,000		31,759,000	492,699,600	875,910,400	150,459,000	113,833,000	141,352,000	135,744,000						
6	Unit Plant Investment - $/unit			316.1798	1599.0822	1540.3900	8.8018	1133.2756	817.0766	1133.9972						
				Retcos-7	Retcos-5	Retcos-5	Retcos-5	Retcos-5	Retcos-5	Retcos-5						
7	Depreciable Plant Investment - $	1,938,524,000		31,759,000	492,045,800	874,748,200	150,075,000	113,583,000	140,956,000	135,357,000						
8	Unit Depreciable Plant Investment - $/unit			316.1798	1596.9602	1538.3461	8.7793	1130.7867	814.7875	1130.7642						
		0.0215		0.0250	0.0200	0.0200	0.0250	0.0250	0.0250	0.0250						
9	Depreciation Expense - $	41,629,100		793,900	9,840,900	17,495,000	3,751,900	2,839,600	3,523,900	3,383,900						
10	Unit Depreciation Expense - $/unit			7.9045	31.9392	30.7669	0.2195	28.2697	20.3697	28.2691						
	Return on Investment															
11	Total Cost - $	100,250,200		1,639,700	25,437,400	45,222,000	7,768,000	5,877,000	7,297,800	7,008,300						
12	Unit Cost (a) - $/unit			16.3239	82.5584	79.5282	0.4544	58.5094	42.1845	58.5467						
	Total Unit Capital Costs															
13	(Line 10 + Line 12) - $/unit			24.2284	114.4976	110.2951	0.6739	86.7791	62.5542	86.8158						
	Total Unit Costs															
14	(Line 4 + Line 13) - $/unit		0.2371	191.9653	195.5351	203.6006	2.1590	200.0439	283.7718	266.9184	6.8093	3.7048	2.4199	4.1429	0.0000	5.0850
	Total Retail Cost of Service	383,041,975	4,053,000	19,282,100	60,247,100	115,773,200	36,905,900	20,093,600	49,091,731	31,951,200	3,874,000	21,370,000	13,958,144	2,357,000	1,192,000	2,893,000

Check on Retail Return: 0

(a) Retail rate of return = 5.1629 %.

(b) Excludes estimated local stormwater contributions of $10,012,638.0.

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		1,422,940,000			
2	WPC Plants		698,021,000			
3	Total System		2,120,961,000		107,864,706	(a)
	Less Contract Customers					
4	Total Allocated Investment	179,204,000	179,204,000			
5	Less Contributed Plant	137,036,000		Retcos-8	Retcos-11	
6	Net Investment for Return	42,168,000		7.50%	4,054,108	3,162,600
	Contract Customers Management Fee				Below 3,560,388	
7	Net to Retail Rate Base		1,941,757,000	5.162861%	100,250,210	

(a) Calculation of total return:

COS = O&M + Annual Depreciation + Return

				Retail $	Contract $	Total $	Totals from This Page $	Difference in Totals $	
COS =	408,098,242	LINKS		Retcos-12, Retcos-13					
O&M =	261,166,620	LINKS		Retcos-19	Retcos-11				
WTP Sludge O&M =	7,377,127		O&M	224,311,531	27,379,000	251,690,531	268,543,747	(16,853,216)	SWAPP/CAP Cost
WTP Sludge Capital =	3,574,566			Retcos-8	Retcos-11				
	Retcos-4		Depreciation	41,629,100	1,230,790	42,859,890	42,641,482	218,408	
Annual Depr =	$42,641,482			Retcos-8	Retcos-11				
Return = COS-	$411,672,808	146,931,622	Return	100,250,200	4,054,108	104,304,308	107,864,706	(10)	
O&M Net Revenue Req-	($261,166,620)	3,574,566			Rates-6 & Rates-7		‖	‖	
Ann Depr	($42,641,482)	(42,641,482)	Mgmt Fee		3,560,388	3,560,388	‖	‖	
					Rates-7		‖	‖	
Return =	$107,864,706	107,864,706			‖	‖	‖	‖	
					‖	‖	‖	‖	
				366,190,831	36,224,286	402,415,117	419,049,935	(16,634,819)	

ANNUAL LUMP SUM COSTS FOR SEWER MAINTENANCE, CUSTOMER RELATED COSTS, AND CAPITAL COSTS FOR FACILITIES USED BY WHOLESALE CONTRACT CUSTOMERS

		(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)	(9)	(10)	(11)		(12)
		Allocated Investment		Depreciable Plant				Annual Lump Sum							
					Treatment				Depreciation Expense		Return on Investment				
Line		Collection	Treatment	Collection	and Pumping	Sewer	Customer		Collection	Treatment	Collection	Treatment	Total Annual		
No.	Contract Customers	System	and Pumping	System	Investment Less Land	Maintenance Expense (c)	Related Costs	SMIP/GARP	System	and Pumping	System	and Pumping	Lump Sum Cost		Land
		$	$	$	$	$	$		$	$	$	$	$		$1,000
		Spltallo-40	Spltallo-40	(1)	(2)-(12)	Somallo-53	Somallo-53		(b)	(b)	(b)	(b)	(5)+...+(10) Rounded		Spltallo-42
1	Abington	706,000	5,098,000	706,000	5,080,000	22,000	14,000		14,120	127,000	52,950	382,350	612,000		18
2	Bensalem	1,110,000	8,726,000	1,110,000	8,695,000	42,000	49,000		(a)	(a)	(a)	(a)	91,000		31
3	Bucks County (d)	1,566,000	29,568,000	1,566,000	29,464,000	60,000	16,000		0	121,900	117,450	366,150	682,000	L. Merion	104
4	Cheltenham	349,000	12,343,000	349,000	12,300,000	13,000	34,000		6,980	307,500	26,175	925,725	1,313,000	Pumping	43
5	DELCORA (e)	3,501,000	51,720,000	3,501,000	51,565,000	62,000	43,000		57,300	116,825	214,875	398,475	892,000	Spltallo-40	155
6	Lower Merion	1,618,000	16,042,000	1,618,000	15,995,000	69,000	54,000		(a)	(a)	(a)	(a)	123,000	190,000	47
7	Lower Moreland	838,000	2,039,000	838,000	2,032,000	29,000	21,000		16,760	50,800	62,850	152,925	333,000	16,042,000	7
8	Lower Southampton (f)	10,577,000	10,499,000	10,577,000	10,462,000	395,000	16,000		129,274	159,836	484,779	481,204	1,666,000		37
9	Springfield (less Wyndmoor)	1,000,000	2,900,000	1,000,000	2,891,000	34,000	27,000		20,000	72,275	75,000	217,500	446,000	Springfield(less Wyndmoor) 62,000	9
10	Springfield (Wyndmoor)	331,000	945,000	331,000	944,000	13,000	8,000		6,620	23,600	24,825	70,875	147,000	Springfield(less Wyndmoor) 2,900,000	1
11	Upper Darby	723,000	17,005,000	723,000	16,954,000	27,000	14,000		(a)	(a)	(a)	(a)	41,000		51
12	Total	22,319,000	156,885,000	22,319,000	156,382,000	766,000	296,000	0	251,054	979,736	1,058,904	2,995,204	6,346,000		503

(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%
Trtmt & Pumping Plant Annual Depreciation Rate: 2.5%
Township Customers Rate of Return: 7.50%

(c) Excludes $0.0 Pumping Stations-Direct to Bucks County, $25,000.0 Pumping Stations-Lower Merion volume and capacity costs recovered through volume and capacity rates, and $96,000.0 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 staring in FY 2007

SUMMARY OF ALLOCATED COST OF SERVICE FOR CONTRACT CUSTOMERS

Test Year 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Customer	Allocated Investment $ Retcos-10	Allocated Depreciable Investment $ Retcos-10	O&M Expense $ Somallo-53	SMIP/GARP Expense $	Depreciation Expense $ Retcos-10	Return on Investment $ Retcos-10	Allocated Cost of Service $	O&M Expense $ (3)	Lump Sum Costs $ Retcos-10
Abington	5,804,000	5,786,000	813,000		141,120	435,300	1,389,420	813,000	612,000
Bensalem	9,836,000	9,805,000	1,584,000		(a)	(a)	1,584,000	1,584,000	91,000
Bucks County	31,134,000	31,030,000	6,762,000		121,900	483,600	7,367,500	6,762,000	682,000
Cheltenham	12,692,000	12,649,000	2,019,000		314,480	951,900	3,285,380	2,019,000	1,313,000
DELCORA	55,221,000	55,066,000	7,505,000		174,125	613,350	8,292,475	7,505,000	892,000
Lower Merion	17,660,000	17,613,000	2,250,000		(a)	(a)	2,250,000	2,250,000	123,000
Lower Moreland	2,877,000	2,870,000	451,000		67,560	215,775	734,335	451,000	333,000
Lower Southampton	21,076,000	21,039,000	2,111,000		289,110	965,983	3,366,093	2,111,000	1,666,000
Springfield (less Wyndmoor)	3,900,000	3,891,000	1,093,000		92,275	292,500	1,477,775	1,093,000	446,000
Springfield (Wyndmoor)	1,276,000	1,275,000	136,000		30,220	95,700	261,920	136,000	147,000
Upper Darby	17,728,000	17,677,000	2,655,000		(a)	(a)	2,655,000	2,655,000	41,000
Total	179,204,000	178,701,000	27,379,000	0	1,230,790	4,054,108	32,663,898	27,379,000	6,346,000

(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.

ALLOCATION OF O&M EXPENSE TO RETAIL SERVICE - CUSTOMER COSTS

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Customer Costs											
		Meter Costs		Sanitary Billing Costs		Stormwater Billing Costs		Industrial Waste Unit			Stormwater Direct		Warranty Program		Total Retail
Line No.	Customer Class	Equivalent Meters (a)	Cost $	Equivalent Bills	Cost $	Equivalent Bills	Cost $	Equivalent Meters	Retail Customers $	Direct $	Equivalent Meters	Cost $	Equivalent Service	Cost $	Customer Cost O&M $
		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-8 x Col.(9)	
	Retail Service														
1	Residential	421,071	2,867,226	4,892,702	18,126,591			421,071	1,744,454				407,392	0	22,738,271
2	Commercial	71,996	490,242	444,908	1,648,295			71,996	298,272				34,963	0	2,436,809
3	Industrial	3,711	25,269	15,023	55,657			3,711	15,374				1,127	0	96,300
4	Public Utilities	989	6,734	2,498	9,255			989	4,097				126	0	20,086
5	Senior Citizens	20,181	137,418	242,093	896,906			20,181	83,608				20,174	0	1,117,932
6	Sewer Only	374	2,547	1,238	4,587			374	1,549				67	0	8,683
7	Groundwater	0	0	0	0			0	0				0	0	0
8	Surcharge	0	0	0	0			0	0	1,192,000			0	0	1,192,000
9	Housing Authority	8,142	55,441	72,122	267,198			8,142	33,731				5,704	0	356,370
10	Charities & Schools	17,711	120,600	48,530	179,794			17,711	73,375				2,267	0	373,769
11	Hospital/University	8,404	57,225	15,675	58,073			8,404	34,817				237	0	150,115
12	Hand Bill	5,134	34,959	9,378	34,744			5,134	21,270				124	0	90,973
13	Scheduled (Flat Rate)		0	24	89			2	8				2	0	97
14	Water Treatment Plant Sludge	0	0	0	0			0	0				0	0	0
15	Private Fire Connections	297	2,022	1,134	4,201			297	1,230				81	0	7,453
16	Leased City Properties	353	2,404	840	3,112			353	1,462				43	0	6,978
17	City	10,561	71,913	21,998	81,498			10,561	43,753				899	0	197,164
18	Subtotal	568,924	3,874,000	5,768,163	21,370,000	0	0	568,926	2,357,000	1,192,000	0	0	473,205	0	28,793,000
19	Infiltration and Inflow		0		0		0		0						0
	Stormwater						13,958,144					2,893,000			16,851,144
20	Total Retail Service	568,924	3,874,000	5,768,163	21,370,000	0	13,958,144	568,926	2,357,000	1,192,000	0	2,893,000	473,205	0	28,793,000
21	Units Costs Retcos-8		$6.8093		$3.7048		$2.4199		$4.1429			$5.0850		$0.0000	

(a) Excludes 2 unmetered equivalent meters.

	Residential - Based on Unit Cost		2,867,199		18,126,482		0		1,744,455			0		0	
	Difference		27		109		0		(1)			0		0	
	Difference as a Percentage of Actual Allocation		0.00%		0.00%		#DIV/0!		0.00%			#DIV/0!			
	CHECK Units of Service	0		0		(5,768,163)		0			(568,926)		0		

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 16 * Col.(1)	Capacity Units Mcf/day Retcos-2	Capacity Cost $ Line 16 * Col.(3)	SS Units 1,000 lbs Retcos-2	SS Cost $ Line 16 * Col.(5)	BOD Units 1,000 lbs Retcos-2	BOD Cost $ Line 16 * Col.(7)	Total Retail WPC Plant O & M $
	Retail Service									
1	Residential	2,998,153	4,452,557	12,321	1,395,536	56,125	12,415,838	52,384	9,434,495	27,698,426
2	Commercial	1,175,524	1,745,771	4,831	547,182	22,006	4,868,115	20,539	3,699,127	10,860,195
3	Industrial	80,974	120,254	333	37,717	1,516	335,366	1,415	254,845	748,182
4	Public Utilities	9,205	13,670	38	4,304	172	38,049	161	28,997	85,020
5	Senior Citizens	106,023	157,454	436	49,383	1,985	439,117	1,852	333,550	979,504
6	Sewer Only	40,530	60,190	167	18,915	759	167,904	708	127,513	374,522
7	Groundwater	190,000	282,169	1,301	147,358	830	183,611	119	21,432	634,570
8	Surcharge	0	0	0	0	2,577	570,133	12,688	2,285,142	2,855,275
9	Housing Authority	162,408	241,192	667	75,548	3,040	672,502	2,838	511,131	1,500,373
10	Charities & Schools	188,510	279,956	775	87,780	3,529	780,677	3,294	593,258	1,741,671
11	Hospital/University	276,560	410,720	1,137	128,782	5,177	1,145,244	4,832	870,256	2,555,002
12	Hand Bill	466,334	692,553	1,916	217,015	8,730	1,931,230	8,148	1,467,476	4,308,274
13	Scheduled (Flat Rate)	20	30	0	0	0	0	0	0	30
14	Water Treatment Plant Sludge	341,600	507,310	1,404	159,024	15,000	3,318,264	0	0	3,984,598
15	Private Fire Connections	2,660	3,950	11	1,246	50	11,061	46	8,285	24,542
16	Leased City Properties	4,099	6,088	17	1,926	77	17,034	72	12,967	38,015
17	City	220,400	327,316	906	102,618	4,126	912,744	3,851	693,575	2,036,253
18	Subtotal	6,263,000	9,301,180	26,260	2,974,334	125,699	27,806,889	112,947	20,342,049	60,424,452
19	Infiltration and Inflow	10,831,100	16,084,820	74,186	8,402,666	47,298	10,463,142	6,757	1,216,951	36,167,579
20	Total Retail Service	17,094,100	25,386,000	100,446	11,377,000	172,997	38,270,031	119,704	21,559,000	96,592,031
21	Units Costs Retcos-8		$1.4851		$113.2648		$221.2176		$180.1026	
	Infiltration and Inflow Allocation based on Unit Cost		16,085,267		8,402,662		10,463,150		1,216,953	
	Difference due to rounding		(447)		4		(8)		(2)	
	Difference as a Percentage of Actual Allocation		0.00%		0.00%		0.00%		0.00%	
	Units of Service Check	0		0		0		0		

NOT IN USE

ALLOCATED INFILTRATION/INFLOW COSTS
INSIDE CITY RETAIL SERVICE

Test Year 2017

(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 i/i

	(1)	(2)	(3)	(4)	(5)									
			Allocated Infiltration/Inflow COS			O&M Allocation Detail			Capital Cost Allocation Detail			Total Cost Allocation Detail		
Line No.	Customer Class		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		19,237,908	27,180,846	46,418,754	19,237,908	0	19,237,908	27,180,846	0	27,180,846	46,418,754	0	46,418,754
	I/I - Pumping & Treatment		51,179,349	19,080,701	70,260,050	35,825,544	15,353,805	51,179,349	13,356,491	5,724,210	19,080,701	49,182,035	21,078,015	70,260,050
	Total I/I Costs		70,417,257	46,261,547	116,678,804	55,063,452	15,353,805	70,417,257	40,537,337	5,724,210	46,261,547	95,600,789	21,078,015	116,678,804

		Allocated Sanitary Sewer Related Infiltration/Inflow COS					O&M Allocation Detail			Capital Cost Allocation Detail			Total Cost Allocation Detail		
Line No.	Customer Class	Volume	Equivalent Meters	Operation & Maintenance	Capital Cost	Total	Equivalent Meters	Volume	Total	Equivalent Meters	Volume	Total	Equivalent Meters	Volume	Total
		Mcf		$	$	$	$	$	$	$	$	$	$	$	$
	Sanitary Sewer I/I - Retail Service	(a)	(a)												
	I/I - Sewer Capacity	70.0%	30.0%				5,771,372	13,466,536	19,237,908	8,154,254	19,026,592	27,180,846	13,925,626	32,493,128	46,418,754
	I/I - Pumping & Treatment	100.0%	0.0%				0	35,825,544	35,825,544	0	13,356,491	13,356,491	0	49,182,035	49,182,035
	Total	85.4%	14.6%				5,771,372	49,292,080	55,063,452	8,154,254	32,383,083	40,537,337	13,925,626	81,675,163	95,600,789
		Retcos-2	Retcos-2				10%	90%		20%	80%		15%	85%	
1	Residential	2,998,153	421,071	28,606,276	22,022,154	50,628,430	4,271,482	24,334,794	28,606,276	6,035,090	15,987,064	22,022,154	10,306,572	40,321,858	50,628,430
2	Commercial	1,175,524	71,996	10,271,606	7,300,152	17,571,758	730,351	9,541,255	10,271,606	1,031,898	6,268,254	7,300,152	1,762,249	15,809,509	17,571,758
3	Industrial	80,974	3,711	694,879	484,967	1,179,846	37,646	657,233	694,879	53,189	431,778	484,967	90,835	1,089,011	1,179,846
4	Public Utilities	9,205	989	84,743	63,257	148,000	10,033	74,710	84,743	14,175	49,082	63,257	24,208	123,792	148,000
5	Senior Citizens	106,023	20,181	1,065,266	854,594	1,919,860	204,723	860,543	1,065,266	289,249	565,345	854,594	493,972	1,425,888	1,919,860
6	Sewer Only	40,530	374	332,756	221,476	554,232	3,794	328,962	332,756	5,360	216,116	221,476	9,154	545,078	554,232
7	Groundwater (b)	0	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	0
9	Housing Authority	162,408	8,142	1,400,797	982,707	2,383,504	82,595	1,318,202	1,400,797	116,697	866,010	982,707	199,292	2,184,212	2,383,504
10	Charities & Schools	188,510	17,711	1,709,722	1,259,038	2,968,760	179,666	1,530,056	1,709,722	253,847	1,005,191	1,259,038	433,513	2,535,247	2,968,760
11	Hospital/University	276,560	8,404	2,329,980	1,595,155	3,925,135	85,253	2,244,727	2,329,980	120,452	1,474,703	1,595,155	205,705	3,719,430	3,925,135
12	Hand Bill	466,334	5,134	3,837,126	2,560,219	6,397,345	52,081	3,785,045	3,837,126	73,584	2,486,635	2,560,219	125,665	6,271,680	6,397,345
13	Scheduled (Flat Rate)	20	2	185	137	322	20	165	185	29	108	137	49	273	322
14	Water Treatment Plant Sludge	341,600	0	2,772,629	1,821,515	4,594,144	0	2,772,629	2,772,629	0	1,821,515	1,821,515	0	4,594,144	4,594,144
15	Private Fire Connections	2,660	297	24,603	18,441	43,044	3,013	21,590	24,603	4,257	14,184	18,441	7,270	35,774	43,044
16	Leased City Properties	4,099	353	36,853	26,917	63,770	3,581	33,272	36,853	5,059	21,858	26,917	8,640	55,130	63,770
17	City	220,400	10,561	1,896,031	1,326,608	3,222,639	107,134	1,788,897	1,896,031	151,368	1,175,240	1,326,608	258,502	2,964,137	3,222,639
18	Total Retail	6,073,000	568,926	55,063,452	40,537,337	95,600,789	5,771,372	49,292,080	55,063,452	8,154,254	32,383,083	40,537,337	13,925,626	81,675,163	95,600,789
				Retcos-12	Retcos-15		0	0		0	0				
				Retcos-13											
				Retcos-19											

ALLOCATION OF CAPITAL COSTS TO RETAIL SERVICE

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
				Sewers				Water Pollution Control Plants								Total
		Pumping Stations		Sanitary		Storm		Volume		Capacity		Suspended Solids		BOD		Retail
Line No.	Customer Class	Capacity Units Mcf/day Retcos-2	Capital Costs $ Retcos-8	Capacity Units Mcf/day Retcos-2	Capital Costs $ Retcos-8	Equivalent Meters (a) Retcos-2	Capital Costs $ Retcos-8	Volume Units Mcf Retcos-2	Capital Costs $ Retcos-8	Capacity Units Mcf/day Retcos-2	Capital Costs $ Retcos-8	SS Units 1,000 lbs. Retcos-2	Capital Costs $ Retcos-8	BOD Units 1,000 lbs. Retcos-2	Capital Costs $ Retcos-8	Capital Costs $
	Retail Service		x Col.(1)		x Col.(3)		x Col.(5)		x col.(7)		x col.(9)		x col.(11)		x col.(13)	
1	Residential	12,321	298,518	32,858	3,762,162			2,998,153	2,020,455	12,321	1,069,205	56,125	3,510,854	52,384	4,547,759	15,208,953
2	Commercial	4,831	117,047	12,882	1,474,958			1,175,524	792,186	4,831	419,230	22,006	1,376,568	20,539	1,783,110	5,963,099
3	Industrial	333	8,068	887	101,559			80,974	54,568	333	28,897	1,516	94,832	1,415	122,844	410,768
4	Public Utilities	38	921	101	11,564			9,205	6,203	38	3,298	172	10,759	161	13,977	46,722
5	Senior Citizens	436	10,564	1,162	133,046			106,023	71,449	436	37,836	1,985	124,170	1,852	160,783	537,848
6	Sewer Only	167	4,046	444	50,837			40,530	27,313	167	14,492	759	47,479	708	61,466	205,633
7	Groundwater	1,301	31,521	4,164	476,768			190,000	128,041	1,301	112,900	830	51,920	119	10,331	811,481
8	Surcharge	0	0	0	0			0	0	0	0	2,577	161,218	12,688	1,101,519	1,262,737
9	Housing Authority	667	16,160	1,780	203,806			162,408	109,447	667	57,882	3,040	190,165	2,838	246,383	823,843
10	Charities & Schools	775	18,777	2,066	236,552			188,510	127,037	775	67,254	3,529	220,754	3,294	285,971	956,345
11	Hospital/University	1,137	27,548	3,031	347,042			276,560	186,374	1,137	98,668	5,177	323,843	4,832	419,494	1,402,969
12	Hand Bill	1,916	46,422	5,111	585,197			466,334	314,263	1,916	166,269	8,730	546,098	8,148	707,375	2,365,624
13	Scheduled (Flat Rate)	0	0	0	0			20	14	0	0	0	0	0	0	14
14	Water Treatment Plant Sludge	1,404	34,017	3,744	428,679			341,600	230,204	1,404	121,838	15,000	938,313	0	0	1,753,051
15	Private Fire Connections	11	267	29	3,320			2,660	1,793	11	955	50	3,128	46	3,994	13,457
16	Leased City Properties	17	412	45	5,152			4,099	2,762	17	1,475	77	4,817	72	6,251	20,869
17	City	906	21,951	2,415	276,512			220,400	148,528	906	78,622	4,126	258,099	3,851	334,328	1,118,040
18	Subtotal	26,260	636,239	70,719	8,097,154	0	0	6,263,000	4,220,637	26,260	2,278,821	125,699	7,863,017	112,947	9,805,585	32,901,453
19	Infiltration and Inflow	74,186	1,797,761	237,395	27,180,846			10,831,100	7,299,363	74,186	6,438,179	47,298	2,958,983	6,757	586,415	46,261,547
20	Stormwater						62,717,000									62,717,000
21	Total Retail Service	100,446	2,434,000	308,114	35,278,000	0	62,717,000	17,094,100	11,520,000	100,446	8,717,000	172,997	10,822,000	119,704	10,392,000	141,880,000
22	Unit Costs		$24.2284		$114.4976		$110.2951		$0.6739		$86.7791		$62.5542		$86.8158	
			1,797,408													

(a) Excludes 2 unmetered equivalent meters and 297 private fire connection equivalent meters.
(b) Capital Cost Control Figures:

	Infiltration and Inflow Allocation based on Unit Cost		1,797,408		27,181,158				7,299,078		6,437,794		2,958,689		586,614	
	Difference due to rounding		353		(312)				285		385		294		(199)	
	Difference as a Percentage of Actual Allocation		0.02%		0.00%				0.00%		0.01%		0.01%		-0.03%	
	CHECK Units of Service	0		0		(568,629)		0		0		0		0		
			2,433,600		35,278,300		316,274,100		11,519,700		8,716,600		10,821,700		10,392,200	395,436,200
			24.2279		114.4976		0		0.6739		86.7790		62.5542		86.8158	
							316,274,100									
			24.2332		114.4963		#DIV/0!		0.6739		86.7843		62.5604		86.7863	

RETAIL TEST YEAR COST OF SERVICE

Line No.	Customer Class	(1) Collection System $ Retcos-19	(2) Treatment Plants $ Retcos-13	(3) Customer Costs $ Retcos-12	(4) Volume Allocated I/I O&M $ Retcos-14	(5) Meter Allocated I/I O&M $ Retcos-14	(6) O&M Total $	(7) Capital Costs $ Retcos-15	(8) Volume Allocated I/I Capital Cost $ Retcos-14	(9) Meter Allocated I/I Capital Cost $ Retcos-14	(10) Capital Cost Total $	(11) Total Cost of Service $ (5) + (8)			
		O&M						CAPITAL COSTS							
	Retail Service														
1	Residential	5,440,278	27,698,426	22,738,271	4,271,482	24,334,794	84,483,251	15,208,953	6,035,090	15,987,064	37,231,107	121,714,358			
2	Commercial	2,132,979	10,860,195	2,436,809	730,351	9,541,255	25,701,589	5,963,099	1,031,898	6,268,254	13,263,251	38,964,840			
3	Industrial	146,935	748,182	96,300	37,646	657,233	1,686,296	410,768	53,189	431,778	895,735	2,582,031			
4	Public Utilities	16,741	85,020	20,086	10,033	74,710	206,590	46,722	14,175	49,082	109,979	316,569			
5	Senior Citizens	192,437	979,504	1,117,932	204,723	860,543	3,355,139	537,848	289,249	565,345	1,392,442	4,747,581			
6	Sewer Only	73,603	374,522	8,683	3,794	328,962	789,564	205,633	5,360	216,116	427,109	1,216,673			
7	Groundwater	600,715	634,570	0	0	0	1,235,285	811,481	0	0	811,481	2,046,766			
8	Surcharge	0	2,855,275	1,192,000	0	0	4,047,275	1,262,737	0	0	1,262,737	5,310,012			
9	Housing Authority	294,635	1,500,373	356,370	82,595	1,318,202	3,552,175	823,843	116,697	866,010	1,806,550	5,358,725			
10	Charities & Schools	342,115	1,741,671	373,769	179,666	1,530,056	4,167,277	956,345	253,847	1,005,191	2,215,383	6,382,660			
11	Hospital/University	501,914	2,555,002	150,115	85,253	2,244,727	5,537,011	1,402,969	120,452	1,474,703	2,998,124	8,535,135			
12	Hand Bill	846,135	4,308,274	90,973	52,081	3,785,045	9,082,508	2,365,624	73,584	2,486,635	4,925,843	14,008,351			
12	Scheduled (Flat Rate)	5	30	97	20	165	317	14	29	108	151	468			
13	Water Treatment Plant Sludge	619,900	3,984,598	0	0	2,772,629	7,377,127	1,753,051	0	1,821,515	3,574,566	10,951,693			
14	Private Fire Connections	4,826	24,542	7,453	3,013	21,590	61,424	13,457	4,257	14,184	31,898	93,322		7,377,127	O&M
15	Leased City Properties	7,471	38,015	6,978	3,581	33,272	89,317	20,869	5,059	21,858	47,786	137,103		3,574,566	Cap
16	City	399,933	2,036,253	197,164	107,134	1,788,897	4,529,381	1,118,040	151,368	1,175,240	2,444,648	6,974,029		10,951,693	Total
17	Total Retail	11,620,622	60,424,452	28,793,000	5,771,372	49,292,080	155,901,526	32,901,453	8,154,254	32,383,083	73,438,790	229,340,316			
18	Less Water Treatment Plant Sludge											Test Cell	Retcos-1		
	Allocated to the Water Utility	(619,900)	(3,984,598)	0	0	(2,772,629)	(7,377,127)	(1,753,051)	0	(1,821,515)	(3,574,566)	(10,951,693)	(10,951,693)	(10,951,693)	(7,377,127)
19	Net Retail Cost of Service	11,000,722	56,439,854	28,793,000	5,771,372	46,519,451	148,524,399	31,148,402	8,154,254	30,561,568	69,864,224	218,388,623			
CHECK SUM												229,340,316	375,434,344		

WASTEWATER RETAIL COST OF SERVICE

Test Year 2017

Line No.	Customer Class	(1) Operation and Maintenance Expense $	(2) Capital Costs $	(3) Total Cost of Service $
	Retail Service	Retcos-16	Retcos-16	
1	Residential	84,483,251	37,231,107	121,714,358
2	Commercial	25,701,589	13,263,251	38,964,840
3	Industrial	1,686,296	895,735	2,582,031
4	Public Utilities	206,590	109,979	316,569
5	Senior Citizens	3,355,139	1,392,442	4,747,581
6	Sewer Only	789,564	427,109	1,216,673
7	Groundwater	1,235,285	811,481	2,046,766
8	Surcharge	4,047,275	1,262,737	5,310,012
9	Housing Authority	3,552,175	1,806,550	5,358,725
10	Charities & Schools	4,167,277	2,215,383	6,382,660
11	Hospital/University	5,537,011	2,998,124	8,535,135
12	Hand Bill	9,082,508	4,925,843	14,008,351
13	Scheduled (Flat Rate)	317	151	468
14	Water Treatment Plant Sludge	7,377,127	3,574,566	10,951,693
15	Private Fire Connections	61,424	31,898	93,322
16	Leased City Properties	89,317	47,786	137,103
17	City	4,529,381	2,444,648	6,974,029
18	Total Retail	155,901,526	73,438,790	229,340,316

ALLOCATION OF O & M EXPENSE TO RETAIL SERVICE - COLLECTION SYSTEM

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		Collection System									
		Pumping Stations				Sanitary Sewers		Storm Sewers		Total Retail	
Line No.	Customer Class	Annual Volume	Volume Cost	Capacity Units	Capacity Cost	Capacity Units	Cost	Equivalent Meters (a)	Cost	Collection System O & M	Excluding Stormwater Costs
		Mcf	$	Mcf/day	$	Mcf/day	$		$	$	
		Retcos-13	Line 16 * Col.(1)	Retcos-2	Line 16 * Col.(3)	Retcos-2	Line 16 * Col.(5)				
	Retail Service										
1	Residential	2,998,153	710,862	12,321	2,066,686	32,858	2,662,730			5,440,278	
2	Commercial	1,175,524	278,717	4,831	810,337	12,882	1,043,925			2,132,979	
3	Industrial	80,974	19,199	333	55,856	887	71,880			146,935	
4	Public Utilities	9,205	2,182	38	6,374	101	8,185			16,741	
5	Senior Citizens	106,023	25,138	436	73,133	1,162	94,166			192,437	
6	Sewer Only	40,530	9,610	167	28,012	444	35,981			73,603	
7	Groundwater	190,000	45,049	1,301	218,226	4,164	337,440			600,715	
8	Surcharge	0	0	0	0	0	0			0	
9	Housing Authority	162,408	38,507	667	111,881	1,780	144,247			294,635	
10	Charities & Schools	188,510	44,696	775	129,996	2,066	167,423			342,115	
11	Hospital/University	276,560	65,572	1,137	190,717	3,031	245,625			501,914	
12	Hand Bill	466,334	110,568	1,916	321,384	5,111	414,183			846,135	
12	Scheduled (Flat Rate)	20	5	0	0	0	0			5	
13	Water Treatment Plant Sludge	341,600	80,993	1,404	235,503	3,744	303,404			619,900	
14	Private Fire Connections	2,660	631	11	1,845	29	2,350			4,826	
15	Leased City Properties	4,099	972	17	2,852	45	3,647			7,471	
16	City	220,400	52,257	906	151,970	2,415	195,706			399,933	
17	Subtotal	6,263,000	1,484,958	26,260	4,404,772	70,719	5,730,892	0	0	11,620,622	
18	Infiltration and Inflow	10,831,100	2,568,042	74,186	12,443,728	237,395	19,237,908			34,249,678	
									53,056,200	53,056,200	
19	Total Retail	17,094,100	4,053,000	100,446	16,848,500	308,114	24,968,800	0	53,056,200	98,926,500	
			Retcos-8		Retcos-8		Retcos-8		Retcos-8		
20	Units Costs		$0.2371		$167.7369		$81.0375		$93.3055		
(a) Excludes 297 private fire connection equivalent meters.			1,403,965		4,169,269		5,427,488				
	Infiltration and Inflow Allocation based on Unit Cost		2,568,054		12,443,730		19,237,897		0	34,249,681	
	Difference due to rounding		12		2		(11)		0	3	
	CHECK - Units of Service	0		0		0					

TABLE

RESIDENTIAL EXCLUDING SENIOR CITIZENS COST OF SERVICE

Test Year 2017

Line No.		(1) Units of Service		(2) Unit Cost of Service $	(3) Total Cost of Service $	Column (3) Reference			
	Collection System	Retcos-2		Retcos-8					
	Pumping System								
1	Volume	2,998,153	Mcf	0.2371	710,862	Retcos-15	Retcos-19	0.2371	0.0000
2	Capacity	12,321	Mcf/day	191.9653	2,365,204	Retcos-15	Retcos-19	191.9653	0.0000
3	Sanitary Sewers - Capacity	32,858	Mcf/day	195.5351	6,424,892	Retcos-15	Retcos-19	195.5351	0.0000
	Storm Water Costs								
4	Equivalent Meters	421,071	Equiv. Meters	203.6006	0	Retcos-15	Retcos-19	0.0000	203.6006
	Water Pollution Control Plants								
5	Volume	2,998,153	Mcf	2.1590	6,473,012	Retcos-13	Retcos-15	2.1590	0.0000
6	Capacity	12,321	Mcf/day	200.0439	2,464,741	Retcos-13	Retcos-15	200.0439	(0.0000)
7	Suspended Solids	56,125	1,000 lbs	283.7718	15,926,692	Retcos-13	Retcos-15	283.7718	0.0000
8	BOD	52,384	1,000 lbs	266.9184	13,982,254	Retcos-13	Retcos-15	266.9184	(0.0000)
	Customer Costs								
9	Meter	421,071	Equiv. Meters	6.8093	2,867,226	Retcos-12		6.8094	(0.0001)
10	Billing - Sanitary	4,892,702	Equiv. Bills	3.7048	18,126,591	Retcos-12		3.7048	(0.0000)
11	Billing - Stormwater	4,892,702	Equiv. Bills	2.4199	0	Retcos-12		0.0000	2.4199
12	Warranty Program	407,392	Equiv. Service	0.0000	0	Retcos-12		0.0000	0.0000
13	Industrial Waste Unit	421,071	Equiv. Meters	4.1429	1,744,454	Retcos-12		4.1429	0.0000
14	Stormwater Incentives	421,071	Equiv. Meters	5.0850	0			0.0000	5.0850
	Infiltration Costs								
15	Equivalent Meters - Sanitary Sewer	421,071	Equiv. Meters	24.4770	10,306,572	Retcos-14	* 30%	24.4770	(0.0000)
16	Volume	2,998,153	Mcf	13.4489	40,321,858	Retcos-14	* 70%	13.4489	0.0000
17	Total Cost of Service				121,714,358				

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

TABLE
RETAIL SEWER INVESTMENT AND ANNUAL COSTS
RELATED TO SANITARY WASTEWATER AND STORM WATER FUNCTIONS
Test Year 2017

Line No.		(1) Total $	(2) Sanitary Wastewater $	(3) Storm Water $
		Retcos-5 & Retcos-6	Retcos-5	Retcos-5
	Average Test Year Plant Investment:			
1	Sewers	1,368,610,000	492,699,600	875,910,400
2	All Other	573,147,000	573,147,000	
3	Total	1,941,757,000	1,065,846,600	875,910,400
	Average Test Year Operating Expense:	Retcos-5 & Retcos-16	Retcos-5	Retcos-5
4	Sewer Maintenance	62,422,000	24,968,800	37,453,200
5	Inlet Cleaning	15,603,000		15,603,000
6	Billing	35,328,144	21,370,000	13,958,144
7	Stormwater Direct	2,893,000		2,893,000
8	All Other	32,278,255	32,278,255	
9	Total	148,524,399	78,617,055	69,907,344

TABLE WW - 9

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

Test Year 2017

Line No.	Cost Component	(1) Total Direct Investment Incl. A&G $ Retcos-6	(2) Investment Allocated to Contract Service $ Retcos-6	(3) Investment Allocated To Retail Service $ (1)-(2)
	Collection System			
1	Sewers-Capacity	1,353,850,000	17,818,000	1,336,032,000
2	Pumping Stations Capacity	32,011,000	252,000	31,759,000
3	LTCP Investment	37,079,000	4,501,000	32,578,000
4	Total Collection System	1,422,940,000	22,571,000	1,400,369,000
	Water Pollution Control Plants			
	Northeast Plant			
	Retail, Abington, Bensalem, Bucks Cty. W&SA, Cheltenham, Lower Moreland, & Lower Southampton			
5	Volume	73,476,000	20,424,000	53,052,000
6	Capacity	35,583,000	7,669,000	27,914,000
7	Suspended Solids	79,566,000	15,014,000	64,552,000
8	BOD	99,436,000	25,166,000	74,270,000
9	Total Northeast Plant	288,061,000	68,273,000	219,788,000
	Southwest Plant			
	Retail, DELCORA, Lower Merion, Springfield (excluding Wyndmoor), & Upper Darby			
10	Volume	77,203,000	32,964,000	44,239,000
11	Capacity	44,514,000	9,551,000	34,963,000
12	Suspended Solids	65,439,000	17,461,000	47,978,000
13	BOD	59,490,000	27,439,000	32,051,000
14	Total Southwest Plant	246,646,000	87,415,000	159,231,000
	Southeast Plant			
	Retail & Springfield (Wyndmoor)			
15	Volume	53,656,000	488,000	53,168,000
16	Capacity	51,242,000	286,000	50,956,000
17	Suspended Solids	28,912,000	90,000	28,822,000
18	BOD	29,504,000	81,000	29,423,000
19	Total Southeast Plant	163,314,000	945,000	162,369,000
20	Total Allocated Treatment Plants	698,021,000	156,633,000	541,388,000
21	Total Allocated System Investment	2,120,961,000	179,204,000	1,941,757,000

	(1)	(2)	(3)	(4)	(5)
	Total Investment (4) * 1,000	Allocated Land (5) * 1,000	Depreciable Investment (1) - (2)	Total Investment Spltallo-43	Allocated Land Spltallo-43
Volume	17,705,000	59,000	17,646,000	17,705	59
Capacity	6,297,000	21,000	6,276,000	6,297	21
Suspended Solids	7,672,000	26,000	7,646,000	7,672	26
BOD	14,733,000	49,000	14,684,000	14,733	49
Total	46,407,000	155,000	46,252,000		

Storm Water Cost Summary
Test Year 2017

	(1) Storm Costs $		(2) Infiltration/ Inflow $		(3) Total $
Capital Costs					
Collection System					
Sewers	62,717,000	Retcos-15	(a)		62,717,000
Pumping Stations			539,300	0.30*Retcos-15	539,300
Treatment			5,184,900	0.30*Retcos-15	5,184,900
Total Capital Costs	62,717,000		5,724,200		68,441,200
Operation & Maintenance Expense					
Collection System					
Sewers	37,453,200	Retcos-5	(a)		37,453,200
Pumping Stations			4,503,500	0.30*(Retcos-19)	4,503,500
Treatment			10,850,300	0.30*(Retcos-13)	10,850,300
Inlet Cleaning (Collection System)	15,603,000	Retcos-5			15,603,000
Customer Costs	13,958,144	Retcos-12			13,958,144
Stormwater Direct	2,893,000				2,893,000
Total Operation & Maintenance Expense	69,907,344		15,353,800		85,261,144
Subtotal Excluding Customer Costs	118,666,200		21,078,000		139,744,200
Total Costs Including Customer Costs	132,624,344		21,078,000		153,702,344

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
Unit Cost	$/eq. meter	203.6006	Retcos-8	Trtmt Plant Capital Costs - $	17,282,940	Retcos-15				
Units of Ser	eq. meters	568,629	Retcos-8	Trtmt Plant O&M - $	36,167,579	Retcos-13	Customer Billing Costs	13,958,144		
				Pump. Sta. Capital Costs - $	1,797,761	Retcos-15	Stormwater Direct	2,893,000		
				Pump. Sta. O&M - $	15,011,770	Retcos-19				
				Total - $	70,260,050					
COS		$115,773,206		Total Allocated to Stormwater	$21,078,000	Retcos-14	Total	$16,851,144	Retcos-12	$153,702,350

(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 $115,773,206.

SCOS15_17.XLS

RATEDSN

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	
ICRTLCOS	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	
RTLADJCOS	Adjusted Retail Unit Costs	Ratedsn-5	TABLE WW - 15
DSCUSTCOS	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	

Allocated Infiltration/Inflow COS	$95,600,789	Retcos-14			
Retail Equivalent Meters	568,926	Retcos-14			
Billing unit conversion factor	0.95			Billing unit conversion factor for Wholesale and Groundwater	1.00
Sen. Cit., 6 cent, N charities discount	25.00%	File: WCOS15_17_ver30_A.xls - Retcos-4			
Housing Authority discount	5.00%	File: WCOS15_17_ver30_A.xls - Retcos-4			
Total Test Year COS	408,098,242				
Water Treatment Plant Sludge	10,951,693	Retcos-16			
Contract Customers COS	$32,663,898	Retcos-11			
Cont Cust TY Receipts Under Exist. Rates	31,706,385		Financial Plan		
Domestic SS strength (ppm)	300	Units-9		Groundwater SS strength (ppm)	70
Domestic BOD strength (ppm)	280	Units-9		Groundwater BOD strength (ppm)	10
TY Surcharge SS units - 1,000 lbs	2,577	Units-9			
TY Surcharge BOD units - 1,000 lbs	12,688	Units-9			

Line No.	Customer Class	Total Cost of Service $ Retcos-16
	Retail Service	
1	Residential	121,714,358
2	Commercial	38,964,840
3	Industrial	2,582,031
4	Public Utilities	316,569
5	Senior Citizens	4,747,581
6	Sewer Only	1,216,673
7	Groundwater	2,046,766
8	Surcharge	5,310,012
9	Housing Authority	5,358,725
10	Charities & Schools	6,382,660
11	Hospital/University	8,535,135
12	Hand Bill	14,008,351
13	Scheduled (Flat Rate)	468
14	Water Treatment Plant Sludge	10,951,693
15	Private Fire Connections	93,322
16	Leased City Properties	137,103
17	City	6,974,029
18	Total Retail	229,340,316

Line No.		(1) Collection System: Pumping Station Volume Retcos-8	(2) Pumping Station Capacity Retcos-8	(3) Sanitary Sewers - Capacity Retcos-8	(4) Storm Costs Retcos-8	(5) Water Pollution Control Plants: Volume Retcos-8	(6) Capacity Retcos-8	(7) Suspended Solids Retcos-8	(8) BOD Retcos-8	(9) Customer Costs: Meter Costs Retcos-8	(10) Billing: Sanitary Retcos-8	(11) Billing: Stormwater Retcos-8	(12) Industrial Waste Unit: Retail Customers Retcos-8	(13) Industrial Waste Unit: Direct Excess Strength Wastewater Retcos-8	(14) Stormwater Incentive Retcos-8	Warranty Program Retcos-8	
	O&M Expense																
1	Total Expense - $	4,053,000	16,848,500	24,968,800	53,056,200	25,386,000	11,377,000	38,270,031	21,559,000	3,874,000	21,370,000	13,958,144	2,357,000	1,192,000	2,893,000	0	
2	Unit Expense - $/unit	0.2371	167.7369	81.0375	93.3055	1.4851	113.2648	221.2176	180.1026	6.8093	3.7048	2.4199	4.1429	#N/A	5.0850	0.0000	
	Capital Expense																
	Total Expense - $	0	2,433,600	35,278,300	62,717,000	11,519,900	8,716,600	10,821,700	10,392,200	0	0	0	0	0	0	0	
3	Total Unit Capital Costs		24.2284	114.4976	110.2951	0.6739	86.7791	62.5542	86.8158	0.0000	0.0000	0.0000	0.0000	#N/A	0.0000	0.0000	
4	Total Unit Costs	0.2371	191.9653	195.5351	203.6006	2.1590	200.0439	283.7718	266.9184	6.8093	3.7048	2.4199	4.1429	#N/A	5.0850	0.0000	
	Total Expense	4,053,000	19,282,100	60,247,100	115,773,200	36,905,900	20,093,600	49,091,731	31,951,200	3,874,000	21,370,000	13,958,144	2,357,000	1,192,000	2,893,000	0	383,041,975

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 2017

Line No.	Cost Component	(1) Units	(2) 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) Adjusted Unit Cost $/unit (2)*(5)				
	Collection System										
	Pumping Station										
1	Volume	Mcf	0.2371	1.0243	0.95	0.9731	0.2307	/Mcf			
2	Capacity	Mcf/day	191.9653	1.0243	0.95	0.9731	186.8014	Mcf/day	$15.5668	/month	
3	Sanitary Sewers - Capacity	Mcf/day	195.5351	1.0243	0.95	0.9731	190.2752	Mcf/day	$15.8563	/month	
4	Storm Costs Related to Equivalent Meters	Eq. Meters	0.0000	1.0243	1.00	1.0243	0.0000	/year	$0.0000	/month	No Longer in Use
	WPC Plants										
5	Volume	Mcf	2.1590	1.0243	0.95	0.9731	2.1009	/Mcf			
6	Capacity	Mcf/day	200.0439	1.0243	0.95	0.9731	194.6627	Mcf/day	$16.2219	/month	
7	Suspended Solids	1,000 lbs	283.7718	1.0243	1.00	1.0243	290.6675	/1,000 lbs			
8	BOD	1,000 lbs	266.9184	1.0243	1.00	1.0243	273.4045	/1,000 lbs			
	Customer Costs										
9	Meter Costs	Eq. Meters	6.8093	1.0243	1.00	1.0243	6.9748	/year	$0.5812	/month	
	Billing Costs										
10	Sanitary	Eq. Bills	3.7048	1.0243	1.00	1.0243	3.7948	/monthly bill			
11	Stormwater	Eq. Bills	0.0000	1.0243	1.00	1.0243	0.0000	/monthly bill			No Longer in Use
12	Industrial Waste Unit - Retail	Eq. Meters	4.1429	1.0243	1.00	1.0243	4.2436	/year	$0.3536	/month	
13	Warranty Program	Eq. Service	0.0000	1.0243	1.00	1.0243	0.0000	/year	$0.0000	/month	
14	Stormwater Incentive Program	Eq. Meters	0.0000	1.0243	1.00	1.0243	0.0000	/year	$0.0000	/month	No Longer in Use
15	I/I - Customer Related - Sanitary (a)	Eq. Meters	24.4770	1.0243	1.00	1.0243	25.0718	/year	$2.0893	/month	
16	I/I - Customer Related - Stormwater (a)	Eq. Meters	0.0000	1.0243	1.00	1.0243	0.0000	/year	$0.0000	/month	No Longer in Use
16	Infiltration/Inflow - Volume Related (a)	Volume	13.4489	1.0243	0.95	0.9731	13.0871	/Mcf			

(a)	Allocated Infiltration/Inflow COS	$95,600,789	Ratedsn-2
	% Allocated I/I to Retail Equiv. Mtrs.	14.6%	Retcos-14
	Allocated I/I to Retail Equiv. Mtrs.	$13,925,626	
	Retail Equivalent Meters	568,926	Ratedsn-2
	$/Eq Meter/year	$24.4770	$/Mcf
	Total Retail I/I COS	$95,600,789	Retcos-14
	% Alloc. I/I to Retail Vol.	85.4%	Retcos-14
	Alloc. I/I to Retail Vol.	$81,675,163	
	Retail Sanitary TY Volume - Mcf	6,073,000	Units-13
	I/I Cost	13.4489	$/Mcf

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 Ratedsn-3	Discount (a) (1) * Ratedsn-2	Adjusted COS (1)-(2)
Test Year Allocated COS			
Housing Authority	$5,358,725	$267,936	$5,090,789
Senior Citizens	4,747,581	1,186,895	3,560,686
Charities & Schools	6,382,660	1,595,665	4,786,995
Hospital/University	8,535,135	2,133,784	6,401,351
Total Discount Customers	$25,024,101	$5,184,280	$19,839,821

Approx COS to be recovered from these classes = $19,839,821

Approximate portion of Discount Customers COS to be recovered by other retail:

$25,024,101 - $19,839,821 = $5,184,280

Percent increase in Allocated COS of all retail:

$$\frac{\text{Above } \$5{,}184{,}280}{[\ \text{Ratedsn-2 } \$229{,}340{,}316 - \$10{,}951{,}693 - \text{Above } \$5{,}184{,}280\ ]} * 100 = 2.4316\%$$

Total System COS — WTP Sludge — 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.

Adjusted COS Rates for Surcharge Customers

		Suspended Solids		BOD	
Excess Strength Wastewater					
Unadjusted Unit Cost	Ratedsn-4	$283.7718	/1,000 lbs	$266.9184	/1,000 lbs
Times adder for COS deficit recovery (a)		0.9731		0.9731	
Times adder for Excess Strength Direct (b)		1.2895		1.2895	
Adjusted Unit Charge - Excess Strength		$356.0749	/1,000 lbs	$334.9274	/1,000 lbs
	USE	$0.356	/lb SS	$0.335	/lb BOD
	===	======		======	
Units of Service		2,577	1,000 lbs	12,688	1,000 lbs

(a) Ratedsn-5, Line 7 times Billing unit conversion factor from Ratedsn-2.

(b) Industrial Waste Unit - Direct

			Ratedsn-4			
Excess Strength Wastewater			$1,192,000			
---	---	=	---	---	---	= 28.9460%
Total Surcharge Class COS		$5,310,012	-	$1,192,000		
		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)
	Collection System				
	Pumping Stations				
1	Volume	Mcf	0.2307	1.0000	0.2307
2	Capacity	Mcf/day/mo.	15.5668	(a) 0.0493	0.7674
3	Sanitary Sewers: Capacity	Mcf/day/mo.	15.8563	(b) 0.1316	2.0867
	Water Pollution Control Plants				
4	Volume	Mcf	2.1009	1.0000	2.1009
5	Capacity	Mcf/day/mo.	16.2219	(a) 0.0493	0.7997
6	Suspended Solids	1,000 lbs	290.6675	(c) 0.0187	5.4355
7	BOD	1,000 lbs	273.4045	(d) 0.0175	4.7846
8	Total Cost per Mcf				16.2055
9	Infiltration/Inflow Cost	Mcf	13.0871	1.0000	Ratedsn-5 13.0871
10	Total Cost + Infiltration/Inflow per Mcf				29.2926
11	Total Cost per Mcf - Rounded				29.29

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-9 300 ppm * 0.00748 million gals / Mcf * 8.34 lbs/gal / 1,000 = 0.0187 1,000 lbs
(d) (1.0 Mcf * Units-9 280 ppm * 0.00748 million gals / Mcf * 8.34 lbs/gal / 1,000 = 0.0175 1,000 lbs

	Development of Miscellaneous Sewer Charge				
12	Groundwater Charge	Mcf	8.8265	1.0000	8.8265

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)
	Collection System				
	Pumping Stations				
1	Volume	Mcf	0.2371	1.0000	0.2371
2	Capacity	Mcf/day/mo.	15.9971	(a) 0.0822	1.3150
3	Sanitary Sewers: Capacity	Mcf/day/mo.	16.2946	(b) 0.2632	4.2887
	Water Pollution Control Plants				
4	Volume	Mcf	2.1590	1.0000	2.1590
5	Capacity	Mcf/day/mo.	16.6703	(a) 0.0822	1.3703
6	Suspended Solids	1,000 lbs	283.7718	(c) 0.0044	1.2486
7	BOD	1,000 lbs	266.9184	(d) 0.0006	0.1602
8	Total Cost per Mcf				10.7789
9	Infiltration/Inflow Cost				
10	Total Cost + Infiltration/Inflow per Mcf				10.7789
11	Total Cost per Mcf - Rounded				10.78

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

10.77

ADDITIONAL COST OF SERVICE TO BE RECOVERED

Line No.	Customer Class	(1) Total Cost of Service $ Ratedsn-3	(2) Adjustment Factor		(3) Adjusted COS $
	Retail Service				
1	Residential	121,714,358	1.0243	(a)	124,674,518
2	Commercial	38,964,840	1.0243		39,912,465
3	Industrial	2,582,031	1.0243		2,644,826
4	Public Utilities	316,569	1.0243		324,268
5	Senior Citizens	4,747,581	0.7682	(b)	3,647,092
6	Sewer Only	1,216,673	1.0243	(a)	1,246,262
7	Groundwater	2,046,766	1.0243	(a)	2,096,543
8	Surcharge	5,310,012	1.0243	(c)	5,439,045
9	Housing Authority	5,358,725	0.9731	(b)	5,214,575
10	Charities & Schools	6,382,660	0.7682	(b)	4,903,159
11	Hospital/University	8,535,135	0.7682	(b)	6,556,691
12	Hand Bill	14,008,351	1.0243	(a)	14,349,034
13	Scheduled (Flat Rate)	468	1.0243	(a)	479
14	Water Treatment Plant Sludge	10,951,693	1.0000	(d)	10,951,693
15	Private Fire Connections	93,322	1.0243	(a)	95,592
16	City Leased	137,103	1.0243	(a)	140,437
17	City	6,974,029	1.0243	(a)	7,143,637
18	Total Retail	229,340,316			229,340,316
	Wholesale Contract Customers	Ratedsn-2 & Retcos-9			Ratedsn-2 & Retcos-9
19	Allocations	32,663,898			32,663,898
20	Management Fee	3,560,388			3,560,388
21	Total Contract Customers	36,224,286			36,224,286
22	Total COS	265,564,602			265,564,602
				Difference	0
				% Difference	0.00%

(a) Percent increase in Allocated COS of all retail is 1.02432 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 1.0243 x 1.0000 1.0243
(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) $
		Above	Above		
1	Senior Citizens	4,747,581	1,100,489	4,747,581	984,000
2	Charities	14,917,795	3,457,945	14,917,795	3,091,000
3	Housing Authority	5,358,725	144,150	5,358,725	1,110,000
					Ratedsn-6
4	Total	25,024,101	4,702,584	25,024,101	5,184,280 <=== Initial estimate of Discount Customers COS recovered by other retail.

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RATES

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

Range	Description	Page Number	Table
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	

ANNUAL LUMP SUM COSTS FOR SEWER MAINTENANCE, CUSTOMER REATED COSTS, AND CAPITAL COSTS FOR FACILITIES USED BY WHOLESALE CONTRACT CUSTOMERS

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
								Annual Lump Sum Costs				
		Allocated Investment		Depreciable Plant				Depreciation	Expense (b)	Return on Investment		
Line No.	Contract Customers	Collection System	Treatment and Pumping	Collection System	Treatment and Pumping Investment	Sewer Maintenance Expense (c)	Customer Related Costs	Collection System	Treatment and Pumping	Collection System	Treatment and Pumping	Total Annual Lump Sum Cost
		$	$	$	$	$	$	$	$	$	$	$
		Retcos-10	Retcos-10	Retcos-10	Retcos-10 (b)	Retcos-10	Retcos-10					(5)+...+(10)
1	Abington	706,000	5,098,000	706,000	5,080,000	22,000	14,000	14,100	127,000	53,000	382,400	612,500
2	Bensalem	1,110,000	8,726,000	1,110,000	8,695,000	42,000	49,000	(a)	(a)	(a)	(a)	91,000
3	Bucks County	1,566,000	29,568,000	1,566,000	29,464,000	60,000	16,000	0	121,900	117,500	366,200	681,600
4	Cheltenham	349,000	12,343,000	349,000	12,300,000	13,000	34,000	7,000	307,500	26,200	925,700	1,313,400
5	DELCORA	3,501,000	51,720,000	3,501,000	51,565,000	62,000	43,000	57,300	116,800	214,900	398,500	892,500
6	Lower Merion	1,618,000	16,042,000	1,618,000	15,995,000	69,000	54,000	(a)	(a)	(a)	(a)	123,000
7	Lower Moreland	838,000	2,039,000	838,000	2,032,000	29,000	21,000	16,800	50,800	62,900	152,900	333,400
8	Lower Southampton	10,577,000	10,499,000	10,577,000	10,462,000	395,000	16,000	129,300	159,800	484,800	481,200	1,666,100
9	Springfield (less Wyndmoor)	1,000,000	2,900,000	1,000,000	2,891,000	34,000	27,000	20,000	72,300	75,000	217,500	445,800
10	Springfield (Wyndmoor)	331,000	945,000	331,000	944,000	13,000	8,000	6,600	23,600	24,800	70,900	146,900
11	Upper Darby	723,000	17,005,000	723,000	16,954,000	27,000	14,000	(a)	(a)	(a)	(a)	41,000
12	Total	22,319,000	156,885,000	22,319,000	156,382,000	766,000	296,000	251,100	979,700	1,059,100	2,995,300	6,347,200

(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 pior 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, $25,000.0 Pumping Stations-Lower Merion volume and capacity costs recovered through volume and capacity rates, and $96,000.0 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 2017

Customer	Allocated Investment $	Allocated Depreciation Investment $	O&M Expense $	Depreciation Expense $	Return on Investment $	Allocated Cost of Service $ Rounded
Abington	5,804,000	5,786,000	813,000	141,120	435,300	1,389,000
Bensalem	9,836,000	9,805,000	1,584,000	(a)	(a)	1,584,000
Bucks County	31,134,000	31,030,000	6,762,000	121,900	483,600	7,368,000
Cheltenham	12,692,000	12,649,000	2,019,000	314,480	951,900	3,285,000
DELCORA	55,221,000	55,066,000	7,505,000	174,125	613,350	8,292,000
Lower Merion	17,660,000	17,613,000	2,250,000	(a)	(a)	2,250,000
Lower Moreland	2,877,000	2,870,000	451,000	67,560	215,775	734,000
Lower Southampton	21,076,000	21,039,000	2,111,000	289,110	965,983	3,366,000
Springfield (less Wyndmoor)	3,900,000	3,891,000	1,093,000	92,275	292,500	1,478,000
Springfield (Wyndmoor)	1,276,000	1,275,000	136,000	30,220	95,700	262,000
Upper Darby	17,728,000	17,677,000	2,655,000	(a)	(a)	2,655,000
Total	179,204,000	178,701,000	27,379,000	1,230,790	4,054,108	32,663,000

(a) It is assumed that DELCORA, Bucks County, Bensalem, 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.

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

These calculations can be used to determine the "CONTRACT ADUSTMENT" required to achieve the target (or adopted rates).

Line No.	Contract Customer	Unit Costs: Volume $/Mcf Rates-8	Capacity $/Mcf/day Rates-8	Suspended Solids $/1,000 lbs Rates-8	BOD $/1,000 lbs Rates-8		Target/Adopted Unit Costs: Volume $/Mcf	Capacity $/Mcf/day	Suspended Solids $/1,000 lbs	BOD $/1,000 lbs
							CURRENTLY NOT IN USE			
	Abington, Bensalem, Bucks County, Lower Moreland and Lower Southampton									
1	Northeast WP CP - Preliminary Trtmt.	0.0960	63.2344							
2	Northeast WP CP - Other	1.4921	75.5159	215.6224	240.2889					
3	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
4	Total	1.5881	138.7503	215.6224	240.2889	Target	#N/A	#N/A	#N/A	#N/A
	Cheltenham									
5	Northeast WP CP	0.0000	0.0000							
6	Northeast WP CP - Other	1.4921	75.5159	215.6224	240.2889					
7	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
8	Total	1.4921	75.5159	215.6224	240.2889	Target	#N/A	#N/A	#N/A	#N/A
	DELCORA									
9	Southwest WP CP	1.3920	74.2124	215.3083	172.7469					
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
	Total	1.3920	74.2124	215.3083	172.7469	Target	#N/A	#N/A	#N/A	#N/A
	Lower Merion									
10	Southwest WP CP	1.4394	75.9021	219.8477	173.7477	Target	#N/A	#N/A	#N/A	#N/A
11	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
12	Neill Drive Pumping Station	0.8373	117.3913							
13	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
14	Total (a)	2.2767	193.2934	219.8477	173.7477	Target	#N/A	#N/A	#N/A	#N/A
	Springfield (less Wyndmoor)									
15	Southwest WP CP	1.4394	75.9021	219.8477	173.7477					
16	Central Schuylkill Pumping Station	0.4327	66.8158							
17	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
18	Total (b)	1.8721	142.7179	219.8477	173.7477	Target	#N/A	#N/A	#N/A	#N/A
	Upper Darby									
19	Southwest WP CP	1.4394	75.9021	219.8477	173.7477					
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
	Total	1.4394	75.9021	219.8477	173.7477	Target	#N/A	#N/A	#N/A	#N/A
	Springfield (Wyndmoor)									
20	Southeast WP CP	1.9199	157.0960	321.8911	110.5147					
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000	Adjustment	#N/A	#N/A	#N/A	#N/A
	Total	1.9199	157.0960	321.8911	110.5147	Target	#N/A	#N/A	#N/A	#N/A

(a) $1.4394 and $75.9021 rates are applied to all Lower Merion volume and capacity whereas $0.8373 and $117.3913 are applied to only to volume and capacity units related to flow through the City Line Avenue and Presidential Drive connection.
(b) $1.8721 and $142.7179 are applicable to all Springfield (less Wyndmoor) volume and capacity units.

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 36

SUMMARY OF TEST YEAR CHARGES FOR WHOLESALE CONTRACT CUSTOMERS

Test Year 2017

Line No.	Contract Customers		(1) Annual Lump Sum Cost $ Rates-2	(2) Unit Costs Volume $/ Mcf Rates-4	(3) Unit Costs Capacity (a) $/cfs Rates-4	(4) Unit Costs Suspended Solids $/1,000 lbs Rates-4	(5) Unit Costs BOD $/1,000 lbs Rates-4
1	Abington	NE	612,500	1.5881	11,988	215.62	240.29
2	Bensalem	NE	91,000	1.5881	11,988	215.62	240.29
3	Bucks County (b)	NE	681,600	1.5881	11,988	215.62	240.29
4	Cheltenham	NE	1,313,400	1.4921	6,525	215.62	240.29
5	DELCORA	SW	892,500	1.3920	6,412	215.31	172.75
6	Lower Merion (c) (d)	SW	123,000	1.4394	6,558	219.85	173.75
7	Lower Moreland	NE	333,400	1.5881	11,988	215.62	240.29
8	Lower Southampton	NE	1,666,100	1.5881	11,988	215.62	240.29
9	Springfield (less Wyndmoor)	SW	445,800	1.8721	12,331	219.85	173.75
10	Springfield (Wyndmoor)	SE	146,900	1.9199	13,573	321.89	110.51
11	Upper Darby	SW	41,000	1.4394	6,558	219.85	173.75
12	Total		6,347,200				

(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 $0.8373 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 $117.39 per Mcf/day ($10,142.6 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.

Reference: LINKS

COMPARISON OF CONTRACT SERVICE REVENUES
UNDER EXISTING AND ADJUSTED RATES
Test Year 2017

	(1)	(2)	(3)	(4)	(5)	(6)				
		Existing Rates		Adjusted Rates			Column (5) Charges Before Management Fee	Allocated Cost of Service from Rates-2	Calculated Revenues Less COS	
	Units of Service	Unit Charge $/unit	Revenue $ (1) * (2)	Unit Charge $/unit Rates-5	Revenue $ (1) * (4)	Revenue Difference $ (5) - (3)	$	$ Rates-2	Amount $	Percent of COS %
Abington										
O&M Charges										
Volume (Mcf)	100,000	1.5385	153,850	1.5881	158,810	4,960				
Capacity (cfs)	9.2470	9,591	88,688	11,988	110,853	22,165				
Suspended Solids (1,000 lbs)	1,100	186.33	204,964	215.62	237,182	32,218				
BOD (1,000 lbs)	1,100	201.11	221,216	240.29	264,319	43,103				
Subtotal			668,718		771,164	102,446				
Lump Sum Charge		527,000	527,000	612,500	612,500	85,500	1,383,664	1,389,000	(5,336)	-0.38%
Management Fee		10.00%	119,572	10%	138,366	18,794				
Total Service Charge			1,315,290		1,522,030	206,740				
Bensalem										
O&M Charges										
Volume (Mcf)	175,000	1.5385	269,238	1.5881	277,918	8,680				
Capacity (cfs)	11.7400	9,591	112,598	11,988	140,739	28,141				
Suspended Solids (1,000 lbs)	2,240	186.33	417,381	215.62	482,989	65,608				
BOD (1,000 lbs)	2,480	201.11	498,742	240.29	595,919	97,177				
Subtotal			1,297,959		1,497,565	199,606				
Lump Sum Charge		93,000	93,000	91,000	91,000	(2,000)	1,588,565	1,584,000	4,565	0.29%
Management Fee		10.00%	139,096	10%	158,857	19,761				
Total Service Charge			1,530,055		1,747,422	217,367				
Bucks County										
O&M Charges										
Volume (Mcf)	870,000	1.5385	1,338,495	1.5881	1,381,647	43,152				
Capacity (cfs)	85.0800	9,591	816,002	11,988	1,019,939	203,937				
Suspended Solids (1,000 lbs)	9,700	186.33	1,807,408	215.62	2,091,514	284,106				
BOD (1,000 lbs)	9,600	201.11	1,930,615	240.29	2,306,784	376,169				
Subtotal			5,892,520		6,799,884	907,364				
Lump Sum Charge (a)		185,000	185,000	681,600	681,600	496,600	7,481,484	7,368,000	113,484	1.54%
Management Fee		10.00%	607,752	10%	748,148	140,396				
Total Service Charge			6,685,272		8,229,632	1,544,360				
Cheltenham										
O&M Charges										
Volume (Mcf)	350,000	1.4478	506,730	1.4921	522,235	15,505				
Capacity (cfs)	20.7500	4,993	103,605	6,525	135,394	31,789				
Suspended Solids (1,000 lbs)	3,100	186.33	577,625	215.62	668,422	90,797				
BOD (1,000 lbs)	2,700	201.11	542,985	240.29	648,783	105,798				
Subtotal			1,730,945		1,974,834	243,889				
Lump Sum Charge		1,119,000	1,119,000	1,313,400	1,313,400	194,400	3,288,234	3,285,000	3,234	0.10%
Management Fee		12.00%	341,993	12%	394,588	52,595				
Total Service Charge			3,191,938		3,682,822	490,884				
Lower Moreland										
O&M Charges										
Volume (Mcf)	58,200	1.5385	89,541	1.5881	92,427	2,886				
Capacity (cfs)	5.9410	9,591	56,980	11,988	71,221	14,241				

Suspended Solids (1,000 lbs)	600	186.33	111,798	215.62	129,372	17,574				
BOD (1,000 lbs)	450	201.11	90,498	240.29	108,131	17,633				
Subtotal			348,817		401,151	52,334				
Lump Sum Charge		301,000	301,000	333,400	333,400	32,400	734,551	734,000	551	0.08% REVISE - SEEMS HIGH
Management Fee		12.00%	77,978	12%	88,146	10,168				
Total Service Charge			727,795		822,697	94,902				

(a) See footnote (a) on sheet Rates-7.

Reference: LINKS

COMPARISON OF CONTRACT SERVICE REVENUES
UNDER EXISTING AND ADJUSTED RATES
Test Year 2017

	(1)	(2)	(3)	(4)	(5)	(6)				
		Existing Rates		Adjusted Rates						
	Units of Service	Unit Charge $/unit	Revenue $ (1) * (2)	Unit Charge $/unit Rates-5	Revenue $ (1) * (4)	Revenue Difference $ (5) - (3)				
Lower Southampton										
O&M Charges										
Volume (Mcf)	270,000	1.5385	415,395	1.5881	428,787	13,392				
Capacity (cfs)	15.7900	9,591	151,442	11,988	189,291	37,849				
Suspended Solids (1,000 lbs)	2,700	186.33	503,093	215.62	582,174	79,081				
BOD (1,000 lbs)	2,100	201.11	422,322	240.29	504,609	82,287				
Subtotal			1,492,252		1,704,861	212,609				
Lump Sum Charge		1,397,000	1,397,000	1,666,100	1,666,100	269,100	3,370,961	3,366,000	4,961	0.15%
Management Fee		10.00%	288,925	10%	337,096	48,171				
Total Service Charge			3,178,177		3,708,057	529,880				
DELCORA										
O&M Charges										
Volume (Mcf)	1,200,000	1.2626	1,515,120	1.3920	1,670,400	155,280				
Capacity (cfs)	155.0000	5,365	831,575	6,412	993,860	162,285				
Suspended Solids (1,000 lbs)	13,100	179.80	2,355,326	215.31	2,820,561	465,235				
BOD (1,000 lbs)	11,100	199.12	2,210,253	172.75	1,917,525	(292,728)				
Subtotal			6,912,274		7,402,346	490,072				
Lump Sum Charge		437,000	437,000	892,500	892,500	455,500	8,294,846	8,292,000	2,846	0.03%
Management Fee		12.00%	881,913	12%	995,382	113,469				
Total Service Charge			8,231,187		9,290,228	1,059,041				
Lower Merion										
O&M Charges										
Volume (Mcf) (b)	360,000	1.3026	468,936	1.4394	530,492	61,556				
Capacity (cfs) (c)	31.5700	5,487	173,225	6,558	220,536	47,311				
Suspended Solids (1,000 lbs)	3,700	182.99	677,052	219.85	813,436	136,384				
BOD (1,000 lbs)	3,200	200.15	640,477	173.75	555,993	(84,484)				
Subtotal			1,959,690		2,120,457	160,767				
Lump Sum Charge		126,000	126,000	123,000	123,000	(3,000)	2,243,457	2,250,000	(6,543)	-0.29%
Management Fee		10.00%	208,569	10%	224,346	15,777				
Total Service Charge			2,294,259		2,467,803	173,544				
Springfield (excl. Wyndmoor)										
O&M Charges										
Volume (Mcf)	160,000	1.6272	260,352	1.8721	299,536	39,184				
Capacity (cfs)	4.6000	11,135	51,221	12,331	56,723	5,502				
Suspended Solids (1,000 lbs)	1,700	182.99	311,078	219.85	373,745	62,667				
BOD (1,000 lbs)	1,800	200.15	360,269	173.75	312,750	(47,519)				
Subtotal			982,920		1,042,754	59,834				
Lump Sum Charge		389,000	389,000	445,800	445,800	56,800	1,488,554	1,478,000	10,554	0.71%
Management Fee		12.00%	164,630	12%	178,626	13,996				
Total Service Charge			1,536,550		1,667,180	130,630				
Upper Darby										
O&M Charges										
Volume (Mcf)	470,000	1.3026	612,222	1.4394	676,518	64,296				
Capacity (cfs)	35.0000	5,487	192,045	6,558	229,530	37,485				

Suspended Solids (1,000 lbs)	4,600	182.99	841,741	219.85	1,011,310	169,569				
BOD (1,000 lbs)	4,000	200.15	800,597	173.75	695,000	(105,597)				
Subtotal			2,446,605		2,612,358	165,753				
Lump Sum Charge		43,000	43,000	41,000	41,000	(2,000)	2,653,358	2,655,000	(1,642)	-0.06%
Management Fee		10.00%	248,961	10%	265,336	16,375				
Total Service Charge			2,738,566		2,918,694	180,128				
Springfield (Wyndmoor)										
O&M Charges										
Volume (Mcf)	19,000	1.9608	37,255	1.9199	36,478	(777)				
Capacity (cfs)	1.9300	12,951	24,995	13,573	26,196	1,201				
Suspended Solids (1,000 lbs)	130	261.45	33,989	321.89	41,846	7,857				
BOD (1,000 lbs)	100	133.47	13,347	110.51	11,051	(2,296)				
Subtotal			109,586		115,571	5,985				
Lump Sum Charge		138,000	138,000	146,900	146,900	8,900	262,471	262,000	471	0.18%
Management Fee		12.00%	29,710	12%	31,497	1,787				
Total Service Charge			277,296		293,968	16,672				
Total Contract Service Revenue			31,706,385		36,350,533	4,644,148				
					divided by (1+12%) management fee (except Cheltenham)					
		Whlsl COS=	32,663,000	minus	2,032,283	30,630,717	93.8%			

(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.

Ref: Somallo-40

Line No.		(1) Total Net Operating Expense $1,000	(2) Projected Test Year Units of Service		(3) Unit Operating Expense $/unit	(4) Contract Customer Total Volume Units Incl. I/I Mcf	(5) Contract Customer Total Volume Units Excl. I/I Mcf	(6) Adjusted Unit Operating Expense $/unit ((3)*(4)) / (5)
	PUMPING STATIONS							
	Neill Drive Pumping Station							
	Retail and Lower Merion							
1	Total Volume	56	69,650	Mcf	0.8040	374,900	360,000	0.8373
2	Total Capacity	43	370	Mcf/day	114.8649	2,788	2,728	117.3913
	Central Schuykill Pumping Station							
	Retail and Springfield (excl. Wyndmoor)							
3	Total Volume	1,159	2,715,700	Mcf	0.4268	162,200	160,000	0.4327
4	Total Capacity	1,441	22,110	Mcf/day	65.1741	407	397	66.8158
	WATER POLLUTION CONTROL PLANTS							
	Northeast Plant:							
	Retail and Cheltenham							
5	Volume	0	NA	Mcf	0.0000	359,800	350,000	0.0000
6	Capacity	0	NA	Mcf/day	0.0000	1,833	1,793	0.0000
	Retail, Abington, Bensalem, Bucks County W&SA, Lower Moreland, and Lower Southampton							
7	Volume	568	6,138,000	Mcf	0.0925	1,528,500	1,473,000	0.0960
8	Capacity	2,371	38,310	Mcf/day	61.8898	10,346	10,126	63.2344
	Retail, Abington, Bensalem, Bucks County W&SA, Cheltenham, Lower Moreland, and Lower Southampton							
9	Volume	11,949	8,295,000	Mcf	1.4405	1,888,300	1,823,000	1.4921
10	Capacity	3,826	51,770	Mcf/day	73.9038	12,179	11,919	75.5159
11	Suspended Solids	22,415	106,130	1,000 lbs	211.2027	19,856	19,449	215.6224
12	BOD	17,713	74,123	1,000 lbs	238.9677	18,551	18,449	240.2889
	Southwest Plant:							
	Retail							
13	Volume	28	NA	Mcf	0.0000	NA	NA	
14	Capacity	442	NA	Mcf/day	0.0000	NA	NA	
	Retail, DELCORA, Lower Merion, Springfield (Excluding Wyndmoor), and Upper Darby							
15	Volume	11,886	8,539,000	Mcf	1.3920	1,023,700	990,000	1.4394
16	Capacity	3,955	53,293	Mcf/day	74.2124	6,289	6,149	75.9021
17	Suspended Solids	16,459	76,444	1,000 lbs	215.3083	10,219	10,008	219.8477
18	BOD	9,513	55,069	1,000 lbs	172.7469	9,028	8,976	173.7477
	Southeast Plant:							
	Retail and Springfield (Wyndmoor)							
19	Volume	8,051	4,392,000	Mcf	1.8331	19,900	19,000	1.9199
20	Capacity	4,306	27,410	Mcf/day	157.0960	167	167	157.0960
21	Suspended Solids	10,323	33,550	1,000 lbs	307.6900	136	130	321.8911
22	BOD	3,193	29,181	1,000 lbs	109.4205	101	100	110.5147

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SERVCHG

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

Range	Description	Page Number	Table
SERVIndex	Index	Servchg-1	
SRVCHG	Service Charge Design	Servchg-2	
ADJRTLCOS	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	

		Customer Costs												
	Collection System Stormwater Costs	Meter Costs	Billing Costs Sanitary	Billing Costs Stormwater	Industrial Waste Costs	Stormwater Infiltration/ Inflow Costs	Sanitary Infiltration/ Inflow Costs	Stormwater Direct Programs	Warranty Costs	Total Cost	Reference	Sanitary	Stormwater	Total
Units	Eq. Meters	Eq. Meters	Eq. Bills	Bills	Eq. Meters	Eq. Meters	Eq. Meters	Eq. Meters	Eq. Service					
5/8 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		Servchg-3			
Units	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		Servchg-3			
Total Cost - $	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000	6.8189		6.8189	0.0000	6.8189
3/4 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	1.5	1.5	1.00	1.00	1.5	1.5	1.5	1.5	1.0		Servchg-3			
Total Cost - $	0.0000	0.8718	3.7948	0.0000	0.5304	0.0000	3.1340	0.0000	0.0000	8.3310		8.3310	0.0000	8.3310
1 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	2.5	2.5	1.1	1.0	2.5	2.5	2.5	2.5	1.1		Servchg-3			
Total Cost - $	0.0000	1.4530	4.1743	0.0000	0.8840	0.0000	5.2233	0.0000	0.0000	11.7346		11.7346	0.0000	11.7346
1-1/4 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	3.8	3.8	1.2	1.0	3.8	3.8	3.8	3.8	1.2		Servchg-3			
Total Cost - $	0.0000	2.2086	4.5538	0.0000	1.3437	0.0000	7.9393	0.0000	0.0000	16.0454		16.0454	0.0000	16.0454
1-1/2 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	5.0	5.0	1.2	1.0	5.0	5.0	5.0	5.0	1.2		Servchg-3			
Total Cost - $	0.0000	2.9060	4.5538	0.0000	1.7680	0.0000	10.4465	0.0000	0.0000	19.6743		19.6743	0.0000	19.6743
2 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	8.0	8.0	1.5	1.0	8.0	8.0	8.0	8.0	2.1		Servchg-3			
Total Cost - $	0.0000	4.6496	5.6922	0.0000	2.8288	0.0000	16.7144	0.0000	0.0000	29.8850		29.8850	0.0000	29.8850
3 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	15.0	15.0	2.0	1.0	15.0	15.0	15.0	15.0	0.0		Servchg-3			
Total Cost - $	0.0000	8.7180	7.5896	0.0000	5.3040	0.0000	31.3395	0.0000	0.0000	52.9511		52.9511	0.0000	52.9511
4 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	25.0	25.0	4.0	1.0	25.0	25.0	25.0	25.0	0.0		Servchg-3			
Total Cost - $	0.0000	14.5300	15.1792	0.0000	8.8400	0.0000	52.2325	0.0000	0.0000	90.7817		90.7817	0.0000	90.7817
6 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	50.0	50.0	7.0	1.0	50.0	50.0	50.0	50.0	0.0		Servchg-3			
Total Cost - $	0.0000	29.0600	26.5636	0.0000	17.6800	0.0000	104.4650	0.0000	0.0000	177.7686		177.7686	0.0000	177.7686
8 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	80.0	80.0	10.0	1.0	80.0	80.0	80.0	80.0	0.0		Servchg-3			
Total Cost - $	0.0000	46.4960	37.9480	0.0000	28.2880	0.0000	167.1440	0.0000	0.0000	279.8760		279.8760	0.0000	279.8760

10 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	115.0	115.0	15.0	1.0	115.0	115.0	115.0	115.0	0.0		Servchg-3			
Total Cost - $	0.0000	66.8380	56.9220	0.0000	40.6640	0.0000	240.2695	0.0000	0.0000	404.6935		404.6935	0.0000	404.6935
12 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	215.0	215.0	20.0	1.0	215.0	215.0	215.0	215.0	0.0		Servchg-3			
Total Cost - $	0.0000	124.9580	75.8960	0.0000	76.0240	0.0000	449.1995	0.0000	0.0000	726.0775		726.0775	0.0000	726.0775
14 Inch Meter														
Unit Costs - $/unit	0.0000	0.5812	3.7948	0.0000	0.3536	0.0000	2.0893	0.0000	0.0000		above			
Units	225.0	225.0	23.0	1.0	225.0	225.0	225.0	225.0	0.0		Servchg-3			
Total Cost - $	0.0000	130.7700	87.2804	0.0000	79.5600	0.0000	470.0925	0.0000	0.0000	767.7029		767.7029	0.0000	767.7029

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							Stormwater Billing	Stormwater IA/GA	Sanitary Service Charge	Volume Charge
	Collection System			Ratedsn-5			Ratedsn-5							
	Pumping Station													
1	Volume	Mcf		0.2307	/Mcf									
2	Capacity	Mcf/day		186.8014	/year	=	$15.5668	/month						
3	Sanitary Sewers	Mcf/day		190.2752	/year	=	$15.8563	/month						
4	Storm Costs Related to Equivalent Meters	Eq Meters		0.0000	/year	=	$0.0000	/month	Service Charge	115,773,200		115,773,200		
	WPC Plants													
5	Volume	Mcf		2.1009	/Mcf									
6	Capacity	Mcf/day		194.6627	/year	=	$16.2219	/month						
7	Suspended Solids	1,000 lbs		290.6675	/1,000 lbs									
8	BOD	1,000 lbs		273.4045	/1,000 lbs									
	Customer Costs													
9	Meter Costs	Eq Meters		6.9748	/year	=	$0.5812	/month	Service Charge	3,874,000			3,874,000	
	Billing Costs													
10	Sanitary	Eq Bills		3.7948	/monthly bill				Service Charge	21,370,000			21,370,000	
11	Stormwater	Eq Bills		0.0000	/monthly bill				Service Charge	13,958,144	13,958,144			
12	Industrial Waste Unit - Retail	Eq Meters		4.2436	/year	=	$0.3536	/month	Service Charge	2,357,000			2,357,000	
13	Warranty Program	Eq Service		0.0000	/year	=	$0.0000	/month	Service Charge	0			0	
14	Stormwater Direct	Eq Meters		0.0000	/year	=	$0.0000	/month	Service Charge	2,893,000		2,893,000		
15	Infiltration/Inflow - Sanitary	Eq Meters		25.0718	/year	=	$2.0893	/month	Service Charge	13,925,626		21,078,000		(7,152,374)
16	Infiltration/Inflow - Stormwater	Eq Meters		0.0000	/year	=	$0.0000	/month	Service Charge					
										174,150,970	13,958,144	139,744,200	27,601,000	
	Test Year Equivalent Bills and Equivalent Meters Factors												32,396,374	

		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	Units-11	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	Units-12	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	Units-12	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 Basec		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

Meter Size inches	Calculated Service Charge $ Servchg-2	Rounded Service Charge $	Lag Factor @ 105.80% $ LagRate-14
5/8	6.82	6.82	7.22
3/4	8.33	8.33	8.81
1	11.73	11.73	12.41
1-1/4	16.05	16.05	16.98
1-1/2	19.67	19.67	20.81
2	29.89	29.89	31.62
3	52.95	52.95	56.02
4	90.78	90.78	96.05
6	177.77	177.77	188.08
8	279.88	279.88	296.11
10	404.69	404.69	428.16
12	726.08	726.08	768.19
14	767.70	767.70	812.23

TABLE WW - 16

DEVELOPMENT OF COST OF SERVICE MONTHLY SERVICE CHARGE FOR CUSTOMERS WITH 5/8-INCH METERS

Test Year 2017

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	0.5812	1.0	0.5812
2	Billing Costs	Eq. Bills	3.7948	1.0	3.7948
3	Industrial Waste Unit	Eq. Meter	0.3536	1.0	0.3536
	Warranty Program	Eq. Service	0.0000	1.0	0.0000
4	I/I Costs - Sanitary Costs	Eq. Meter	2.0893	1.0	2.0893
5	Total Service Charge				6.8189
6	Total Service Charge - Rounded				6.82

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

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LAGRATE

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	
PBILLERates	Projected Gross Billings Under Existing Rates	LagRate-4	
BILLMETER	Historical Bills by Meter Size & Billed Volume	LagRate-5	
BILLMETER	FY 2017 Bills by Meter Size & Billed Volume	LagRate-6	
EBILLS	Historical Billings Under Existing Rates	LagRate-7	
BILLTABFTR	FY 2017 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	
PBILLPRates	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	
WHLCHRGS	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	Cntrct Serv. Proposed Rates Receipts Analysis - Part 1	LagRate-19	
CTRCTANAL	Cntrct Serv. Proposed Rates Receipts Analysis - Part 2	LagRate-19a	
COSCLASS	COS & Adjusted COS by Class	LagRate-20	
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	
PHASEDRAT	Phased Rates for Stormwater Transition	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	
PROPRCPTS1	Page 1 of FY 2017 Proposed Receipts Calcs	LagRate-37	
PROPRCPTS2	Page 2 of FY 2017 Proposed Receipts Calcs	LagRate-38	
SWCPEM	Stormwater Cost Per 5/8 Inch Equivalent Meter	LagRate-39	
SSERVCHGS	2017 Components of Sewer Service Charges	LagRate-40	
SSERVCHGS	2018 Components of Sewer Service Charges	LagRate-41	
SSERVCHGS	2019 Components of Sewer Service Charges	LagRate-42	
SSERVCHGS	Summary of Components of Regular Sewer Service Charges	LagRate-43	
SSERVCHGS	Summary of Components of Discount Sewer Service Charges	LagRate-44	

Reference:
OPTION 0 COS

TEST YEAR COS RATES
TEST YEAR 2017
(Prior to Application of Lag Factor Adjustment)
(Prior to Adjustment for Parcel Area Charge)

Meter Size inches	Meter Code	General Service Service Charge $/Bill Servchg-4	Discount Service Charge (a) $/Bill Ratedsn-2
15.11	5/8	R	6.82	5.12
37.91	3/4	Z	8.33	6.25
61.18	1	Q	11.73	8.80
89.77	1-1/4	Y	16.05	12.04
118.37	1-1/2	P	19.67	14.75
188.19	2	X	29.89	22.42
350.10	3	O	52.95	39.71
585.83	4	W	90.78	68.09
1,166.66	6	N	177.77	133.33
1,862.86	8	V	279.88	209.91
2,679.42	10	E	404.69	303.52
4,977.74	12	T	726.08	544.56
5,217.47	14	H	767.70	575.78

Monthly Water Usage	Charge Per Mcf Ratedsn-8	Charge Per Mcf calc here
General Service Volume Charge	29.29	21.97
Groundwater Volume Charge	10.78	

Wastewater Surcharge	Charge $/lb Ratedsn-7
BOD in excess of 250 mg/l	0.335
SS in excess of 350 mg/l	0.356

(a) Universities, Colleges, Hospitals, Charities, Board of Education and Senior Citizens are billed at 75% of regular rates.

GENERAL SERVICE
Effective July 1, 2014

Meter Size inches	Meter Code	General Service Service Charge $/Bill	Discount Service Charge (a) $/Bill
		Ref: Financial Planning Model	
5/8	R	6.55	4.91
3/4	Z	8.04	6.03
1	Q	11.39	8.54
1-1/4	Y	15.64	11.73
1-1/2	P	19.24	14.43
2	X	29.31	21.98
3	O	52.07	39.05
4	W	89.15	66.86
6	N	174.77	131.08
8	V	275.38	206.54
10	E	398.07	298.55
12	T	715.77	536.83
14	H		0.00

Monthly Water Usage	Charge $/Mcf
General Service Volume Charge	28.07
Discount Volume Charge (a)	21.05
Groundwater Volume Charge	10.76

Wastewater Surcharge	Charge $/lb
BOD in excess of 250 mg/l	0.350
SS in excess of 350 mg/l	0.332

GENERAL SERVICE
Effective July 1, 2013

Meter Size inches	Meter Code	General Service Service Charge $/Bill	Discount Service Charge (a) $/Bill		
		Ref: Financial Planning Model			
5/8	R	6.36	4.77	6.30	4.73
3/4	Z	7.81	5.86	7.72	5.79
1	Q	11.05	8.29	10.89	8.17
1-1/4	Y	15.16	11.37	14.92	11.19
1-1/2	P	18.63	13.97	18.32	13.74
2	X	28.35	21.26	27.86	20.90
3	O	50.34	37.76	49.41	37.06
4	W	86.21	64.66	84.67	63.50
6	N	168.95	126.71	165.86	124.40
8	V	266.14	199.61	261.21	195.91
10	E	384.75	288.56	377.67	283.25
12	T	691.38	518.54	678.16	508.62
14	H		0.00		0.00

Monthly Water Usage	Charge $/Mcf	Charge $/Mcf
General Service Volume Charge	26.19	24.74
Discount Volume Charge (a)	19.64	18.56
Groundwater Volume Charge	10.13	9.66

Wastewater Surcharge	Charge $/lb	
BOD in excess of 250 mg/l	0.327	0.310
SS in excess of 350 mg/l	0.310	0.292

References: Financial Planning Model (Customer)
Water & Sewer and Water Only Data No Longer Required

PROJECTED WASTEWATER BILLINGS UNDER EXISTING RATES

W&S Accounts	2013 Volume Mcf	2014 Volume Mcf	2015 Volume Mcf	2016 Volume Mcf	2017 Volume Mcf	2018 Volume Mcf	2019 Volume Mcf	2020 Volume Mcf	2021 Volume Mcf	2022 Volume Mcf	Test Year 2017
Residential (excluding Senior Citizens)	3,387,803	3,255,088	3,206,963	3,196,314	3,155,915	3,115,516	3,080,010	3,049,130	3,018,031	2,982,092	3,155,915
Commercial	1,224,787	1,205,519	1,268,755	1,242,132	1,237,394	1,232,935	1,231,152	1,231,384	1,230,790	1,227,934	1,237,394
Industrial	83,087	84,327	84,671	85,329	85,236	85,148	85,260	85,512	85,716	85,733	85,236
Public Utilities	8,933	8,507	10,711	9,696	9,689	9,683	9,676	9,670	9,664	9,657	9,689
Senior Citizens	110,061	109,880	115,884	113,218	111,603	109,988	108,373	106,758	105,143	103,528	111,603
Housing Authority	166,958	165,961	178,299	170,956	170,956	170,956	170,956	170,956	170,956	170,956	170,956
Charities & Schools	215,339	211,193	190,792	198,431	198,431	198,431	198,431	198,431	198,431	198,431	198,431
Hospital/University	261,881	262,322	272,720	291,116	291,116	291,116	291,116	291,116	291,116	291,116	291,116
Hand Billed	527,519	524,773	497,828	490,878	490,878	490,878	490,878	490,878	490,878	490,878	490,878
Scheduled (Flat Rate)	16	22	21	21	21	21	21	21	21	21	21
Fire Meters	9,863	2,991	2,627	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
City Leased Properties	4,382	4,443	4,689	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315
City	231,344	218,014	247,108	232,000	232,000	232,000	232,000	232,000	232,000	232,000	232,000
Sewer Only	57,061	76,652	42,663	42,663	42,663	42,663	42,663	42,663	42,663	42,663	42,663
Ground Water	161,399	157,872	248,776	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000
Total	6,450,432	6,287,563	6,372,505	6,269,869	6,223,017	6,176,449	6,137,651	6,105,634	6,072,524	6,032,124	6,223,017

W&S Accounts	Billings $	Billings $	Billings $	Billings $	Billings $	Billings $	Billings $	Billings $	Billings $	Billings $	
Residential (excluding Senior Citizens)	106,388,424	117,034,621	122,221,470	121,203,721	120,078,720	118,953,718	117,964,982	117,105,072	116,239,037	115,238,255	120,078,720
Commercial	33,300,066	35,503,022	39,653,899	38,696,288	38,564,342	38,440,157	38,390,528	38,396,976	38,380,448	38,300,897	38,564,342
Industrial	2,197,868	2,392,837	2,560,094	2,564,652	2,562,063	2,559,626	2,562,741	2,569,767	2,575,440	2,575,896	2,562,063
Public Utilities	271,002	264,247	346,335	316,134	315,950	315,766	315,582	315,411	315,239	315,068	315,950
Senior Citizens	2,852,840	3,270,042	3,622,272	3,544,694	3,510,963	3,477,231	3,443,499	3,409,768	3,376,036	3,342,304	3,510,963
Housing Authority	4,223,782	4,632,963	5,261,729	5,039,011	5,039,011	5,039,011	5,039,011	5,039,011	5,039,011	5,039,011	5,039,011
Charities & Schools	4,750,258	4,750,062	4,611,440	4,745,569	4,745,569	4,745,569	4,745,569	4,745,569	4,745,569	4,745,569	4,745,569
Hospital/University	4,961,359	5,366,354	5,993,562	6,346,171	6,346,171	6,346,171	6,346,171	6,346,171	6,346,171	6,346,171	6,346,171
Hand Bill	12,673,802	13,928,784	14,152,964	13,885,960	13,885,960	13,885,960	13,885,960	13,885,960	13,885,960	13,885,960	13,885,960
Scheduled (Flat Rate)	492	727	737	752	752	752	752	752	752	752	752
Fire Meters	230,109	78,161	73,520	77,974	77,974	77,974	77,974	77,974	77,974	77,974	77,974
City Prop. Leased to Others (821)	132,540	131,577	146,883	135,662	135,662	135,662	135,662	135,662	135,662	135,662	135,662
Municipal (820)	6,124,410	6,122,022	5,787,062	6,913,940	6,913,940	6,913,940	6,913,940	6,913,940	6,913,940	6,913,940	6,913,940
Sewer Only	1,350,881	2,019,176	1,213,040	1,206,759	1,206,759	1,206,759	1,206,759	1,206,759	1,206,759	1,206,759	1,206,759
Ground Water Charges	1,499,662	1,596,151	2,670,300	2,028,227	2,028,227	2,028,227	2,028,227	2,028,227	2,028,227	2,028,227	2,028,227
Total	180,957,495	197,090,746	208,315,309	206,705,515	205,412,062	204,126,523	203,057,358	202,177,018	201,266,225	200,152,445	205,412,062

	TY-2 2015	TY-1 2016	TY 2017
Test Year 2017 Total Billings	208,315,309	206,705,515	$205,412,062

Test Year 2017 Total Volume Charge	$200,448,986
Test Year 2017 Total less Municipal & Fire Volume Charge	$190,171,072
Test Year 2017 Municipal & Fire Volume Charge	$10,277,915
Test Year 2017 Total Service Charge	$4,963,075
Test Year 2017 Total less Municipal Service Charge	$4,902,345
Test Year 2017 Municipal Service Charge	$60,731

Reference: Financial Planning Model (Btab)
Customer - Wastewater Billed Volume Year 2014

Meter Size inches	Meter Code	Residential Annual Number of Bills	Residential Annual Consumption Mcf	Commercial Annual Number of Bills	Commercial Annual Consumption Mcf	Industrial Annual Number of Bills	Industrial Annual Consumption Mcf	Public Utilities Annual Number of Bills	Public Utilities Annual Consumption Mcf	Senior Citizens Annual Number of Bills	Senior Citizens Annual Consumption Mcf	Housing Authority Annual Number of Bills	Housing Authority Annual Consumption Mcf	Charity and Schools Annual Number of Bills	Charity and Schools Annual Consumption Mcf	Hospital/University Annual Number of Bills	Hospital/University Annual Consumption Mcf
5/8	R	409,202		27,936		537		37		19,501		5,743		1,261		44	
3/4	Z	33		15		0		0		0		0		0		0	
1	Q	2,179		2,548		255		27		3		13		334		28	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	609		1,048		84		10		1		8		163		14	
2	X	453		1,409		109		19		0		15		256		54	
3	O	140		497		47		13		0		37		245		88	
4	W	43		260		13		4		0		20		307		90	
6	N	12		90		7		6		0		14		34		50	
8	V	3		18		0		1		0		7		5		6	
10	E	0		5		0		0		0		0		0		1	
12	T	0		0		0		0		0		0		0		0	
14	H		LagRate-4								LagRate-4		LagRate-4		LagRate-4		LagRate-4
		412,674	3,255,088	33,825	1,205,519	1,051	84,327	117	8,507	19,505	109,880	5,857	165,961	2,606	211,193	375	262,322

Meter Size inches	Meter Code	Hand Bill Annual Number of Bills	Hand Bill Annual Consumption Mcf	Scheduled (Flat Rate) Annual Number of Bills	Scheduled (Flat Rate) Annual Consumption Mcf	Fire Meters Annual Number of Bills	Fire Meters Annual Consumption Mcf	Leased City Properties Annual Number of Bills	Leased City Properties Annual Consumption Mcf	City Annual Number of Bills	City Annual Consumption Mcf	Sewer Only Customers: Sewer Only Sewer Only accts	Sewer Only Consumption Mcf	Ground Water Sewer Only accts	Ground Water Consumption Mcf	Total Sewer Only accts	Total Consumption Mcf
5/8	R	21		2		55		10		195		48				48	
3/4	Z	0		0		0		0		1		1				1	
1	Q	15		0		8		5		108		1		Volume Charge Only		1	
1-1/4	Y	0		0		0		0		0		0				0	
1-1/2	P	10		0		3		5		65		0				0	
2	X	37		0		9		10		225		4				4	
3	O	66		0		1		5		121		1				1	
4	W	71		0		3		7		57		0				0	
6	N	24		0		1		0		31		2				2	
8	V	7		0		0		0		11		2				2	
10	E	3		0		0		0		14		0				0	
12	T	0		0		0		0		1		0				0	
14	H				LagRate-4		LagRate-4				LagRate-4		LagRate-4			0	
		254	524,773	2	22	81	2,991	41	4,443	830	218,014	59	76,652	0	157,872	59	234,524

NOTE: Excludes Water Only Customers and Wastewater Only Customers

(a) Excludes Senior Citizens

Meter Size inches	Meter Code	Residential Annual Number of Bills	Residential Annual Consumption Mcf	Commercial Annual Number of Bills	Commercial Annual Consumption Mcf	Industrial Annual Number of Bills	Industrial Annual Consumption Mcf	Public Utilities Annual Number of Bills	Public Utilities Annual Consumption Mcf	Senior Citizens Annual Number of Bills	Senior Citizens Annual Consumption Mcf	Housing Authority Annual Number of Bills	Housing Authority Annual Consumption Mcf	Charity and Schools Annual Number of Bills	Charity and Schools Annual Consumption Mcf	"6 Cent" Charities Annual Number of Bills	"6 Cent" Charities Annual Consumption Mcf
5/8	R	4,838,946		334,935		6,352		471		242,038		67,792		14,518		600	
3/4	Z	390		180		0		0		0		0		0		0	
1	Q	25,769		30,547		3,016		343		37		153		3,848		382	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	7,207		12,566		994		127		12		94		1,872		191	
2	X	5,352		16,891		1,289		242		0		176		2,952		751	
3	O	1,654		5,954		556		165		0		435		2,825		1,215	
4	W	508		3,115		154		51		0		235		3,538		1,242	
6	N	142		1,078		83		76		0		165		391		696	
8	V	35		216		0		13		0		82		57		82	
10	E	0		60		0		0		0		0		0		14	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		LagRate-11	LagRate-4	LagRate-11		LagRate-11		LagRate-11		LagRate-11	LagRate-4	LagRate-11	LagRate-4	LagRate-11	LagRate-4	LagRate-11	LagRate-4
		4,880,004	3,155,915	405,540	1,237,394	12,444	85,236	1,488	9,689	242,088	111,603	69,132	170,956	30,000	198,431	5,172	291,116

Meter Size inches	Meter Code	Hand Bill Annual Number of Bills	Hand Bill Annual Consumption Mcf	Scheduled (Flat Rate) Annual Number of Bills	Scheduled (Flat Rate) Annual Consumption Mcf	Fire Meters Annual Number of Bills	Fire Meters Annual Consumption Mcf	City Properties Annual Number of Bills	City Properties Annual Consumption Mcf	Municipal (Incl. Sewer Only) Annual Number of Bills	Municipal (Incl. Sewer Only) Annual Consumption Mcf	Sewer Only Customers: Sewer Only Annual Number of Bills	Sewer Only Customers: Sewer Only Annual Consumption Mcf	Sewer Only Customers: Ground Water Annual Number of Bills	Sewer Only Customers: Ground Water Annual Consumption Mcf	Sewer Only Customers: Total Annual Number of Bills	Sewer Only Customers: Total Annual Consumption Mcf
5/8	R	248		24		603		120		2,430		644		0		644	
3/4	Z	0		0		0		0		12		13		0		13	
1	Q	172		0		91		55		1,345		13		0		13	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	119		0		34		55		814		0		0		0	
2	X	431		0		102		120		2,807		54		0		54	
3	O	765		0		11		55		1,510		13		0		13	
4	W	830		0		34		76		708		0		0		0	
6	N	280		0		11		0		389		27		0		27	
8	V	86		0		0		0		142		27		0		27	
10	E	32		0		0		0		177		0		0		0	
12	T	0		0		0		0		12		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		LagRate-11		LagRate-11	LagRate-4	LagRate-11	LagRate-4	LagRate-11		LagRate-11	LagRate-4	LagRate-11	LagRate-4	LagRate-11			
		2,964	490,878	24	21	888	2,800	480	4,315	10,344	232,000	792	42,663	0	190,000	792	232,663

REVCHECK

NOTE: Excludes Water Only Customers and Wastewater Only Customers

(a) Excludes Senior Citizens

This page is using billing data and sewer only data from Financial Planning Model - Customer worksheet

Meter Size inches	Meter Code	Residential Service Charge Billings $	Residential Volume Charge Billings $	Commercial Service Charge Billings $	Commercial Volume Charge Billings $	Industrial Service Charge Billings $	Industrial Volume Charge Billings $	Public Utilities Service Charge Billings $	Public Utilities Volume Charge Billings $	Senior Citizens (b) Service Charge Billings $	Senior Citizens (b) Volume Charge Billings $	Housing Authority (b) Service Charge Billings $	Housing Authority (b) Volume Charge Billings $	"N" Charities (b) Service Charge Billings $	"N" Charities (b) Volume Charge Billings $	"6 Cent" Charities (b) Service Charge Billings $	"6 Cent" Charities (b) 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	2,680,274		182,980		3,514		242		95,750		35,739		6,192		214	
3/4	Z	265		120		0		0		0		0		0		0	
1	Q	24,820		29,019		2,902		307		26		140		2,854		237	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	11,726		20,165		1,615		192		14		146		2,347		200	
2	X	13,266		41,291		3,192		556		0		416		5,636		1,196	
3	O	7,284		25,856		2,445		676		0		1,823		9,584		3,439	
4	W	3,830		23,159		1,158		356		0		1,687		20,546		6,020	
6	N	2,095		15,716		1,222		1,048		0		2,315		4,446		6,615	
8	V	825		4,953		0		275		0		1,824		1,030		1,226	
10	E	0		1,989		0		0		0		0		0		295	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		2,744,386	91,370,331	345,250	33,838,907	16,049	2,367,059	3,654	238,797	95,790	2,312,974	44,089	4,425,591	52,636	4,445,621	19,441	5,521,870

REVCHECK:

Meter Size inches	Meter Code	Hand Bill Service Charge Billings $	Hand Bill Volume Charge Billings $	Scheduled (Flat Rate) (b) Service Charge Billings $	Scheduled (Flat Rate) (b) Volume Charge Billings $	Fire Meters (b) Service Charge Billings $	Fire Meters (b) Volume Charge Billings $	City Properties (b) Service Charge Billings $	City Properties (b) Volume Charge Billings $	Municipal (Incl. Sewer Only) Service Charge Billings $	Municipal (Incl. Sewer Only) Volume Charge Billings $	Sewer Only Service Charge Billings $	Sewer Only Volume Charge Billings $	Sewer Only Ground Water Service Charge Billings $	Sewer Only Ground Water Volume Charge Billings $	Total Sewer Only Service Charge Billings $	Total Sewer Only 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		LagRate-6 x LagRate-2	
5/8	R	139		13		361		67		1,277							
3/4	Z	0		0		0		0		8							
1	Q	168		0		95		53		1,229		Volume		Volume		Volume	
1-1/4	Y	0		0		0		0		0		charge only		charge only		charge only	
1-1/2	P	195		0		60		90		1,256							
2	X	1,083		0		274		300		6,602							
3	O	3,415		0		54		243		6,308							
4	W	6,340		0		278		582		5,062							
6	N	4,197		0		181		0		5,458							
8	V	2,035		0		0		0		3,127							
10	E	1,103		0		0		0		5,651							
12	T	0		0		0		0		677							
14	H	0		0		0		0		0							
		18,676	14,730,372	13	618	1,302	83,966	1,334	124,707	36,656	6,119,650	0	2,151,616	0	1,698,702	0	6,583,080

(a) Excludes Senior Citizens
(b) Excludes Water Only and Wastewater Only.

This page is using 2016 projected billing data times existing rates.

Meter Size inches	Meter Code	Residential Service Charge Billings $	Residential Volume Charge Billings $	Commercial Service Charge Billings $	Commercial Volume Charge Billings $	Industrial Service Charge Billings $	Industrial Volume Charge Billings $	Public Utilities Service Charge Billings $	Public Utilities Volume Charge Billings $	Senior Citizens (b) Service Charge Billings $	Senior Citizens (b) Volume Charge Billings $	Housing Authority (b) Service Charge Billings $	Housing Authority (b) Volume Charge Billings $	"N" Charities (b) Service Charge Billings $	"N" Charities (b) Volume Charge Billings $	"6 Cent" Charities (b) Service Charge Billings $	"6 Cent" Charities (b) 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	31,695,099		2,193,826		41,606		3,082		1,188,408		421,835		71,281		2,948	
3/4	Z	3,135		1,445		0		0		0		0		0		0	
1	Q	293,507		347,927		34,356		3,911		318		1,654		32,859		3,263	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	138,667		241,771		19,117		2,447		179		1,719		27,015		2,757	
2	X	156,875		495,061		37,791		7,082		0		4,910		64,880		16,497	
3	O	86,130		310,004		28,949		8,609		0		21,515		110,333		47,428	
4	W	45,293		277,663		13,709		4,535		0		19,911		236,519		83,028	
6	N	24,779		188,423		14,471		13,336		0		27,324		51,187		91,228	
8	V	9,761		59,378		0		3,502		0		21,527		11,861		16,911	
10	E	0		23,843		0		0		0		0		0		4,074	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		32,453,245	88,586,531	4,139,340	34,733,653	190,000	2,392,568	46,505	271,973	1,188,905	2,349,240	520,395	4,558,798	605,934	4,176,977	268,134	6,127,992

Meter Size inches	Meter Code	Hand Bill Service Charge Billings $	Hand Bill Volume Charge Billings $	Scheduled (Flat Rate) (b) Service Charge Billings $	Scheduled (Flat Rate) (b) Volume Charge Billings $	Fire Meters (b) Service Charge Billings $	Fire Meters (b) Volume Charge Billings $	City Properties (b) Service Charge Billings $	City Properties (b) Volume Charge Billings $	Municipal (Incl. Sewer Only) (b) Service Charge Billings $	Municipal (Incl. Sewer Only) (b) Volume Charge Billings $	Sewer Only Service Charge Billings $	Sewer Only Volume Charge Billings $	Sewer Only Ground Water Service Charge Billings $	Sewer Only Ground Water Volume Charge Billings $	Total Sewer Only Service Charge Billings $	Total Sewer Only 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	1,624		157				786		15,915							
3/4	Z	0		0				0		95							
1	Q	1,964		0		Volume		621		15,315		Volume		Volume		Volume	
1-1/4	Y	0		0		charge only		0		0		charge only		charge only		charge only	
1-1/2	P	2,281		0				1,049		15,658							
2	X	12,636		0				3,517		82,278							
3	O	39,847		0				2,840		78,612							
4	W	73,987		0				6,808		63,090							
6	N	48,976		0				0		68,025							
8	V	23,745		0				0		38,976							
10	E	12,871		0				0		70,427							
12	T	0		0				0		8,442							
14	H	0		0				0		0							
		217,932	13,778,945	157	601	0	78,596	15,622	121,122	456,833	6,512,240	0	1,197,542	0	2,044,400	0	6,530,842

Recap of FY 2014 Billings		
Service Charges	LagRate-7	
Total	$2,995,648	2.4%
Total less Municipal	$2,958,992	2.4%
Municipal	$36,656	0.0%
Volume Charge		
Total	$120,988,407	97.6%
Total less Municipal & Fire	$114,784,792	92.6%
Municipal & Fire	$6,203,616	5.0%

(a) Excludes Senior Citizens
(b) Excludes Water Only and Wastewater Only.

Bill Tab Correction Factors Based on Billings Under Existing Rates

	(1) FY 2017 Calculated Billngs Amount $	(2) Unit Billings $/Mcf	(3) FY 2017 Projected Billings from Fin Plan Amount $	(4) Unit Billings $/Mcf	(5) Bill Tab Adjustment Factors
	Above	(1) / LagRate-6	LagRate-4	(3) / LagRate-4	(4)/(2)
Residential (excluding Senior Citizens)	121,039,776	38.3533	120,078,720	38.0488	99.21%
Commercial	38,872,993	31.4152	38,564,342	31.1658	99.21%
Industrial	2,582,568	30.2991	2,562,063	30.0585	99.21%
Public Utilities	318,479	32.8698	315,950	32.6088	99.21%
Senior Citizens	3,538,145	31.7030	3,510,963	31.4594	99.23%
Housing Authority	5,079,193	29.7105	5,039,011	29.4755	99.21%
Charity and Schools	4,782,911	24.1036	4,745,569	23.9154	99.22%
Hospitals & Universities	6,396,126	21.9711	6,346,171	21.7995	99.22%
Charities Weighted Average		22.8835		22.7048	99.22%
Hand Bill	13,996,877	28.5140	13,885,960	28.2880	99.21%
Scheduled (Flat Rate)	758	35.4158	752	35.1356	99.21%
Fire Meters	78,596	28.0700	77,974	27.8479	99.21%
City Leased Property (a)	136,744	31.6904	135,662	31.4397	99.21%
City	6,969,073	30.0391	6,913,940	29.8015	99.21%
Sewer Only	1,197,542	28.0700	1,206,759	28.2860	100.77%
Ground Water Charges	2,044,400	10.7600	2,028,227	10.6749	99.21%
Total	207,034,182		205,412,062		99.22%

References:
A. LagRate-5
B. LagRate-6
C. LagRate-7

		Unit Volume Charge $/Mcf Ref. C / Ref. A	Unit Service Charge $/Bill Ref. C / Ref. A	Total Unit Charge $/Mcf Ref. C / Ref. A	Bill Tab Adjustment Factors	Billed Volume Mcf LagRate-3	FY 2017 Test Year "Water and Sewer" Volume Charge Billings $	Bills LagRate-3	Service Charge Billings $	Total Billings $	Consumption Percent W&S of W&S and Water Only %	Percent W&S of W&S and W Only No. of Bills FY 2017 Test Year %	Water and Sewer Billings (Excluding Water Only) Volume Charge Billings $	Service Charge Billings $	Total Billings $	FY 2017 Test Year W&S Billings Divided by W&S and W Only Billings %
Residential (Excluding Senior Citizens)		28.0700	6.6502	28.9130	99.21%	3,155,915	87,883,154	4,880,004	32,195,326	120,078,479	100.00%	100.00%	87,883,154	32,195,326	120,078,479	100.00%
Commercial		28.0700	10.2070	28.3560	99.21%	1,237,394	34,457,868	405,540	4,106,480	38,564,348	100.00%	100.00%	34,457,868	4,106,480	38,564,348	100.00%
Industrial		28.0700	15.2684	28.2600	99.21%	85,236	2,373,571	12,444	188,491	2,562,062	100.00%	100.00%	2,373,571	188,491	2,562,062	100.00%
Public Utilities		28.0700	31.2537	28.4990	99.21%	9,689	269,814	1,488	46,136	315,950	100.00%	100.00%	269,814	46,136	315,950	100.00%
Senior Citizens		21.0500	4.9110	21.9220	99.23%	111,603	2,331,191	242,088	1,179,760	3,510,952	100.00%	100.00%	2,331,191	1,179,760	3,510,952	100.00%
Housing Authority		26.6665	7.5276	26.9320	99.21%	170,956	4,522,733	69,132	516,281	5,039,014	100.00%	100.00%	4,522,733	516,281	5,039,014	100.00%
Charities & Schools ("N" Charities)		21.0500	20.1978	21.2990	99.22%	198,431	4,144,365	30,000	601,203	4,745,569	100.00%	100.00%	4,144,365	601,203	4,745,569	100.00%
Hospitals & Universities ("6 Cent" Charities)		21.0500	51.8434	21.1240	99.22%	291,116	6,080,131	5,172	266,040	6,346,171	100.00%	100.00%	6,080,131	266,040	6,346,171	100.00%
Hand Bill		28.0700	73.5263	28.1060	99.21%	490,878	13,669,756	2,964	216,205	13,885,961	100.00%	100.00%	13,669,756	216,205	13,885,961	100.00%
Scheduled (Flat Rate)		28.0700	6.5500	28.6650	99.21%	21	601	24	157	758	100.00%	100.00%	601	157	758	100.00%
Fire Meters		28.0700	16.0778	28.5050	99.21%	2,800	77,974	888	14,164	92,138	100.00%	100.00%	77,974	14,164	92,138	100.00%
City Leased Properties		28.0700	32.5457	28.3700	99.21%	4,315	120,164	480	15,498	135,662	100.00%	100.00%	120,164	15,498	135,662	100.00%
City	(Incl. SO==>)	28.0700	44.1641	28.2380	99.21%	232,000	6,460,721	10,344	453,219	6,913,940	100.00%	100.00%	6,460,721	453,219	6,913,940	100.00%
Sewer Only - Ref. B		28.0700	0.0000	28.0700	100.77%	42,663	1,206,759	792	0	1,206,759	100.00%	100.00%	1,206,759	0	1,206,759	100.00%
Ground Water - Ref. B		10.7600	0.0000	10.7600	99.21%	190,000	2,028,227	108	0	2,028,227	100.00%	100.00%	2,028,227	0	2,028,227	100.00%
Total						6,033,017	163,598,801	5,661,360	39,798,962	203,397,763			163,598,801	39,798,962	203,397,763	100.00%
Total less Municipal									39,345,743				157,138,080	39,345,743	196,483,823	
Total less Municipal and Fire							157,060,105						157,060,105	39,331,579	196,391,684	

(a) Included with General Service.

This page uses FY 2017 billing data times COS rates.
Volume charges do not reflect billing delay

Meter Size inches	Meter Code	Residential Service Charge Billings $	Residential Volume Charge Billings $	Commercial Service Charge Billings $	Commercial Volume Charge Billings $	Industrial Service Charge Billings $	Industrial Volume Charge Billings $	Public Utilities Service Charge Billings $	Public Utilities Volume Charge Billings $	Senior Citizens (b) Service Charge Billings $	Senior Citizens (b) Volume Charge Billings $	Housing Authority (b) Service Charge Billings $	Housing Authority (b) Volume Charge Billings $	"N" Charities (b) Service Charge Billings $	"N" Charities (b) Volume Charge Billings $	"6 Cent" Charities (b) Service Charge Billings $	"6 Cent" Charities (b) 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	33,001,615		2,284,258		43,321		3,209		1,239,236		439,224		74,330		3,074	
3/4	Z	3,248		1,497		0		0		0		0		0		0	
1	Q	302,268		358,312		35,382		4,028		328		1,703		33,859		3,362	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	141,766		247,174		19,545		2,502		183		1,757		27,614		2,818	
2	X	159,979		504,857		38,539		7,223		0		5,007		66,178		16,827	
3	O	87,586		315,243		29,438		8,754		0		21,879		112,197		48,229	
4	W	46,121		282,740		13,960		4,618		0		20,276		240,870		84,556	
6	N	25,205		191,657		14,720		13,565		0		27,793		52,066		92,793	
8	V	9,920		60,349		0		3,559		0		21,879		12,055		17,187	
10	E	0		24,239		0		0		0		0		0		4,142	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		33,777,707	92,436,747	4,270,328	36,243,274	194,904	2,496,556	47,459	283,794	1,239,747	2,451,914	539,517	4,756,936	619,169	4,359,533	272,990	6,395,819

REVCHECK

Meter Size inches	Meter Code	Hand Bill Service Charge Billings $	Hand Bill Volume Charge Billings $	Scheduled (Flat Rate) (b) Service Charge Billings $	Scheduled (Flat Rate) (b) Volume Charge Billings $	Fire Meters (b) Service Charge Billings $	Fire Meters (b) Volume Charge Billings $	City Properties (b) Service Charge Billings $	City Properties (b) Volume Charge Billings $	Municipal (Incl. Sewer Only) Service Charge Billings $	Municipal (Incl. Sewer Only) Volume Charge Billings $	Sewer Only Service Charge Billings $	Sewer Only Volume Charge Billings $	Sewer Only Ground Water Service Charge Billings $	Sewer Only Ground Water Volume Charge Billings $	Total Sewer Only Service Charge Billings $	Total Sewer Only 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	1,691		164				818		16,571							
3/4	Z	0		0				0		80							
1	Q	1,176		0				372		9,170							
1-1/4	Y	0		0				0		0							
1-1/2	P	809		0		Volume		372		5,550		Volume		Volume		Volume	
2	X	2,940		0		charge only		818		19,145		charge only		charge only		charge only	
3	O	5,219		0				372		10,296							
4	W	5,660		0				521		4,826							
6	N	1,911		0				0		2,655							
8	V	588		0				0		965							
10	E	221		0				0		1,207							
12	T	0		0				0		80							
14	H	0		0				0		0							
		20,214	14,377,817	164	627	0	82,012	3,274	126,386	70,546	6,795,280	0	1,249,591	0	2,048,200	0	3,297,791

(a) Excludes Senior Citizens
(b) Excludes Water Only and Wastewater Only.

References: A. LagRate-6
B. LagRate-9

	FY 2017 Billing Data Applied to COS Rates			FY 2017	
	Unit Volume Charge $/Mcf Ref. B / Ref. A	Unit Service Charge $/Bill Ref. B / Ref. A	Total Unit Charge $/Mcf Ref. B / Ref. A	Units Billings Under Existing Rates $/Mcf LagRate-7a	Percent Change
Residential (Excluding Senior Citizens) (a)	29.2900	6.9217	39.9930	38.3533	4.28%
Commercial	29.2900	10.5300	32.7410	31.4152	4.22%
Industrial	29.2900	15.6625	31.5770	30.2991	4.22%
Public Utilities	29.2900	31.8943	34.1880	32.8698	4.01%
Senior Citizens (a)	21.9700	5.1211	33.0790	31.7030	4.34%
Housing Authority (a)	27.8255	7.8042	30.9810	29.7105	4.28%
Charities & Schools (a)	21.9700	20.6390	25.0900	24.1036	4.09%
Hospitals & University (a)	21.9700	52.7822	22.9080	21.9711	4.26%
Hand Bill	29.2900	6.8200	29.3310	28.5140	2.87%
Scheduled (Flat Rate) (a)	29.2900	6.8200	36.9390	35.4158	4.30%
Fire Meters (a)	29.2900	0.0000	29.2900	28.0700	4.35%
City Prop Leased to Others (821) (a)(b)	29.2900	6.8200	30.0490	31.6904	-5.18%
Municipal (820) (Incl. Sewer Only)	29.2900	6.8200	29.5940	30.0391	-1.48%
Sewer Only - Ref. B	29.2900	0.0000	29.2900	28.0700	4.35%
Ground Water - Ref. B	10.7800	0.0000	10.7800	10.7600	0.19%

(a) Excludes Water Only and Wastewater Only; i.e., includes W&S.
(b) Included with General Service.

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	Scheduled (Flat Rate)	Fire Meters	City Leased Property (a)	City	Sewer Only	Groundwater	Total	Total less Municipal
Unit Volume Charge - $/Mcf	LagRate-10	29.2900	29.2900	29.2900	29.2900	21.9700	27.8255	21.9700	21.9700	29.2900	29.2900	29.2900	29.2900	29.2900	29.2900	10.7800		
Unit Service Charge - $/Mcf	LagRate-10	6.9217	10.5300	15.6625	31.8943	5.1211	7.8042	20.6390	52.7822	6.8200	6.8200	0.0000	6.8200	6.8200	0.0000	0		
Total Unit Charge - $/Mcf	LagRate-10	39.9930	32.7410	31.5770	34.1880	33.0790	30.9810	25.0900	22.9080	29	36.9390	29.2900	30.0490	29.5940	29.2900	10.7800		
2015																		
W&S Billed Volume - Mcf	LagRate-4	3,206,963	1,268,755	84,671	10,711	115,884	178,299	190,792	272,720	497,828	21	2,627	4,689	247,108	42,663	248,776	6,372,505	
Volume Charge Billings - $	Ref. A	93,931,932	37,161,825	2,480,025	313,737	2,545,963	4,961,250	4,191,698	5,991,663	14,581,379	606	76,930	137,350	7,237,785	1,249,591	2,681,806	177,543,540	170,305,755
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		127,709,855	41,432,161	2,674,929	361,196	3,785,720	5,500,770	4,810,868	6,264,652	14,601,594	770	76,930	140,623	7,308,331	1,249,591	2,681,806	218,599,797	211,291,466
Alternate Total Billings - $	Ref. C	128,256,051	41,540,298	2,673,669	366,201	3,833,314	5,523,872	4,786,969	6,247,474	14,601,790	765	76,930	140,909	7,312,905	1,249,591	2,681,806	219,292,544	
2016																		
W&S Billed Volume - Mcf	LagRate-4	3,196,314	1,242,132	85,329	9,696	113,218	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,269,869	
Volume Charge Billings - $	Ref. A	93,620,039	36,382,057	2,499,279	283,987	2,487,397	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	175,464,960	168,669,680
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		127,397,963	40,652,393	2,694,184	331,446	3,727,154	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	216,521,217	209,655,391
Alternate Total Billings - $	Ref. C	127,830,189	40,668,656	2,694,426	331,477	3,745,134	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	2,048,200	216,987,799	
2017																		
W&S Billed Volume - Mcf	LagRate-4	3,155,915	1,237,394	85,236	9,689	111,603	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,223,017	
Volume Charge Billings - $	Ref. A	92,436,747	36,243,274	2,496,556	283,794	2,451,914	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	174,104,485	167,309,205
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		126,214,671	40,513,610	2,691,460	331,252	3,691,671	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	215,160,742	208,294,916
Alternate Total Billings - $	Ref. C	126,214,504	40,513,521	2,691,490	331,251	3,691,710	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	2,048,200	215,160,393	
2018																		
W&S Billed Volume - Mcf	LagRate-4	3,115,516	1,232,935	85,148	9,683	109,988	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,176,449	
Volume Charge Billings - $	Ref. A	91,253,454	36,112,654	2,493,992	283,600	2,416,432	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	172,752,334	165,957,054
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		125,031,378	40,382,991	2,688,896	331,059	3,656,189	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	213,808,591	206,942,765
Alternate Total Billings - $	Ref. C	124,598,819	40,367,512	2,688,726	331,025	3,638,286	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	2,048,200	213,342,286	
2019																		
W&S Billed Volume - Mcf	LagRate-4	3,080,010	1,231,152	85,260	9,676	108,373	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,137,651	
Volume Charge Billings - $	Ref. A	90,213,487	36,060,454	2,497,269	283,407	2,380,950	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	171,627,768	164,832,488
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		123,991,411	40,330,790	2,692,174	330,866	3,620,706	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	212,684,025	205,818,199
Alternate Total Billings - $	Ref. C	123,178,832	40,309,161	2,692,259	330,800	3,584,863	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	2,048,200	211,813,832	
2020																		
W&S Billed Volume - Mcf	LagRate-4	3,049,130	1,231,384	85,512	9,670	106,758	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,105,634	
Volume Charge Billings - $	Ref. A	89,309,022	36,067,236	2,504,659	283,227	2,345,467	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	170,701,811	163,906,531
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		123,086,946	40,337,572	2,699,564	330,685	3,585,224	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	211,758,068	204,892,242
Alternate Total Billings - $	Ref. C	121,943,862	40,316,742	2,700,226	330,589	3,531,439	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	5,565,100	214,057,675	
2021																		
W&S Billed Volume - Mcf	LagRate-4	3,018,031	1,230,790	85,716	9,664	105,143	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,072,524	
Volume Charge Billings - $	Ref. A	88,398,114	36,049,851	2,510,627	283,046	2,309,985	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	169,743,824	162,948,544
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		122,176,038	40,320,188	2,705,531	330,505	3,549,742	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	210,800,081	203,934,254
Alternate Total Billings - $	Ref. C	120,700,095	40,297,309	2,706,660	330,378	3,478,015	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	2,048,200	209,230,374	
2022																		
W&S Billed Volume - Mcf	LagRate-4	2,982,092	1,227,934	85,733	9,657	103,528	170,956	198,431	291,116	490,878	21	2,800	4,315	232,000	42,663	190,000	6,032,124	
Volume Charge Billings - $	Ref. A	87,345,477	35,966,179	2,511,106	282,866	2,274,502	4,756,936	4,359,533	6,395,819	14,377,817	627	82,012	126,386	6,795,280	1,249,591	2,048,200	168,572,331	161,777,051
Bills W&S		4,880,004	405,540	12,444	1,488	242,088	69,132	30,000	5,172	2,964	24	888	480	10,344	792	108	5,661,468	
Service Charge Billings - $	Ref. B	33,777,924	4,270,336	194,904	47,459	1,239,757	539,520	619,170	272,990	20,214	164	0	3,274	70,546	0	0	41,056,257	40,985,711
Total Billings - $		121,123,401	40,236,515	2,706,010	330,325	3,514,259	5,296,456	4,978,703	6,668,808	14,398,031	790	82,012	129,660	6,865,826	1,249,591	2,048,200	209,628,587	202,762,761
Alternate Total Billings - $	Ref. C	119,262,809	40,203,778	2,707,176	330,168	3,424,591	5,296,388	4,978,639	6,668,885	14,397,943	790	82,012	129,661	6,865,808	1,249,591	2,048,200	207,646,439	

(a) Included with General Service.

Reference: LagRate-11

Service Charge Billings

	Projected Billing Under COS Rates **Before** Adjusting for Bill Tab Correction Factors								Bill Tab Correction Factors LagRate-7a	Projected Billing Under COS Rates **After** Adjusting for Bill Tab Correction Factors								Test Year
	2015	2016	2017	2018	2019	2020	2021	2022		2015	2016	2017	2018	2019	2020	2021	2022	2017
Residential	33,777,924	33,777,924	33,777,924	33,777,924	33,777,924	33,777,924	33,777,924	33,777,924	99.21%	33,509,727	33,509,727	33,509,727	33,509,727	33,509,727	33,509,727	33,509,727	33,509,727	33,509,727
Commercial	4,270,336	4,270,336	4,270,336	4,270,336	4,270,336	4,270,336	4,270,336	4,270,336	99.21%	4,236,430	4,236,430	4,236,430	4,236,430	4,236,430	4,236,430	4,236,430	4,236,430	4,236,430
Industrial	194,904	194,904	194,904	194,904	194,904	194,904	194,904	194,904	99.21%	193,357	193,357	193,357	193,357	193,357	193,357	193,357	193,357	193,357
Public Utilities	47,459	47,459	47,459	47,459	47,459	47,459	47,459	47,459	99.21%	47,082	47,082	47,082	47,082	47,082	47,082	47,082	47,082	47,082
Senior Citizens	1,239,757	1,239,757	1,239,757	1,239,757	1,239,757	1,239,757	1,239,757	1,239,757	99.23%	1,230,232	1,230,232	1,230,232	1,230,232	1,230,232	1,230,232	1,230,232	1,230,232	1,230,232
Subtotal	39,530,380	39,530,380	39,530,380	39,530,380	39,530,380	39,530,380	39,530,380	39,530,380		39,216,827	39,216,827	39,216,827	39,216,827	39,216,827	39,216,827	39,216,827	39,216,827	39,216,827
Housing Authority	539,520	539,520	539,520	539,520	539,520	539,520	539,520	539,520	99.21%	535,252	535,252	535,252	535,252	535,252	535,252	535,252	535,252	535,252
Charities & Schools	619,170	619,170	619,170	619,170	619,170	619,170	619,170	619,170	99.22%	614,336	614,336	614,336	614,336	614,336	614,336	614,336	614,336	614,336
Hospitals & Universities	272,990	272,990	272,990	272,990	272,990	272,990	272,990	272,990	99.22%	270,857	270,857	270,857	270,857	270,857	270,857	270,857	270,857	270,857
Hand Bill	20,214	20,214	20,214	20,214	20,214	20,214	20,214	20,214	99.21%	20,054	20,054	20,054	20,054	20,054	20,054	20,054	20,054	20,054
Scheduled (Flat Rate)	164	164	164	164	164	164	164	164	99.21%	162	162	162	162	162	162	162	162	162
Fire Meters	0	0	0	0	0	0	0	0	99.21%	0	0	0	0	0	0	0	0	0
City Leased Property	3,274	3,274	3,274	3,274	3,274	3,274	3,274	3,274	99.21%	3,248	3,248	3,248	3,248	3,248	3,248	3,248	3,248	3,248
City	70,546	70,546	70,546	70,546	70,546	70,546	70,546	70,546	99.21%	69,988	69,988	69,988	69,988	69,988	69,988	69,988	69,988	69,988
Sewer Only	0	0	0	0	0	0	0	0	100.77%	0	0	0	0	0	0	0	0	0
Groundwater	0	0	0	0	0	0	0	0	99.21%	0	0	0	0	0	0	0	0	0
Total	41,056,257	41,056,257	41,056,257	41,056,257	41,056,257	41,056,257	41,056,257	41,056,257		40,730,725	40,730,725	40,730,725	40,730,725	40,730,725	40,730,725	40,730,725	40,730,725	40,730,725
Total Less Municipal	40,985,711	40,985,711	40,985,711	40,985,711	40,985,711	40,985,711	40,985,711	40,985,711		40,660,737	40,660,737	40,660,737	40,660,737	40,660,737	40,660,737	40,660,737	40,660,737	40,660,737

Volume Charge Billings

	2015	2016	2017	2018	2019	2020	2021	2022		2015	2016	2017	2018	2019	2020	2021	2022	Test Year 2017
Residential	93,931,932	93,620,039	92,436,747	91,253,454	90,213,487	89,309,022	88,398,114	87,345,477	99.21%	93,186,112	92,876,696	91,702,799	90,528,902	89,497,192	88,599,908	87,696,233	86,651,954	91,702,799
Commercial	37,161,825	36,382,057	36,243,274	36,112,654	36,060,454	36,067,236	36,049,851	35,966,179	99.21%	36,866,760	36,093,183	35,955,502	35,825,920	35,774,134	35,780,862	35,763,615	35,680,607	35,955,502
Industrial	2,480,025	2,499,279	2,496,556	2,493,992	2,497,269	2,504,659	2,510,627	2,511,106	99.21%	2,460,334	2,479,435	2,476,733	2,474,190	2,477,441	2,484,772	2,490,692	2,491,168	2,476,733
Public Utilities	313,737	283,987	283,794	283,600	283,407	283,227	283,046	282,866	99.21%	311,246	281,732	281,540	281,349	281,157	280,978	280,799	280,620	281,540
Senior Citizens	2,545,963	2,487,397	2,451,914	2,416,432	2,380,950	2,345,467	2,309,985	2,274,502	99.23%	2,526,403	2,468,287	2,433,077	2,397,867	2,362,657	2,327,448	2,292,238	2,257,028	2,433,077
Subtotal	136,433,482	135,272,759	133,912,284	132,560,133	131,435,567	130,509,611	129,551,623	128,380,130		135,350,855	134,199,334	132,849,652	131,508,228	130,392,582	129,473,968	128,523,578	127,361,377	132,849,652
Housing Authority	4,961,250	4,756,936	4,756,936	4,756,936	4,756,936	4,756,936	4,756,936	4,756,936	99.21%	4,922,002	4,719,304	4,719,304	4,719,304	4,719,304	4,719,304	4,719,304	4,719,304	4,719,304
Charities & Schools	4,191,698	4,359,533	4,359,533	4,359,533	4,359,533	4,359,533	4,359,533	4,359,533	99.22%	4,158,972	4,325,497	4,325,497	4,325,497	4,325,497	4,325,497	4,325,497	4,325,497	4,325,497
Hospitals & Universities	5,991,663	6,395,819	6,395,819	6,395,819	6,395,819	6,395,819	6,395,819	6,395,819	99.22%	5,944,867	6,345,866	6,345,866	6,345,866	6,345,866	6,345,866	6,345,866	6,345,866	6,345,866
Hand Bill	14,581,379	14,377,817	14,377,817	14,377,817	14,377,817	14,377,817	14,377,817	14,377,817	99.21%	14,465,831	14,263,881	14,263,881	14,263,881	14,263,881	14,263,881	14,263,881	14,263,881	14,263,881
Scheduled (Flat Rate)	606	627	627	627	627	627	627	627	99.21%	602	622	622	622	622	622	622	622	622
Fire Meters	76,930	82,012	82,012	82,012	82,012	82,012	82,012	82,012	99.21%	76,322	81,363	81,363	81,363	81,363	81,363	81,363	81,363	81,363
City Leased Property	137,350	126,386	126,386	126,386	126,386	126,386	126,386	126,386	99.21%	136,263	125,386	125,386	125,386	125,386	125,386	125,386	125,386	125,386
City	7,237,785	6,795,280	6,795,280	6,795,280	6,795,280	6,795,280	6,795,280	6,795,280	99.21%	7,180,526	6,741,522	6,741,522	6,741,522	6,741,522	6,741,522	6,741,522	6,741,522	6,741,522
Sewer Only	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	100.77%	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208
Groundwater	2,681,806	2,048,200	2,048,200	2,048,200	2,048,200	2,048,200	2,048,200	2,048,200	99.21%	2,660,590	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996
Total	177,543,540	175,464,960	174,104,485	172,752,334	171,627,768	170,701,811	169,743,824	168,572,331		176,156,035	174,093,979	172,744,297	171,402,873	170,287,226	169,368,613	168,418,222	167,256,022	172,744,297
Total Less Municipal and Fire	170,228,825	168,587,668	167,227,193	165,875,042	164,750,476	163,824,519	162,866,532	161,695,039		168,899,188	167,271,094	165,921,412	164,579,987	163,464,341	162,545,728	161,595,337	160,433,137	165,921,412

Total Service Charge and Volume Charge Billings

	2015	2016	2017	2018	2019	2020	2021	2022	2015	2016	2017	2018	2019	2020	2021	2022	Test Year 2017
Residential	127,709,855	127,397,963	126,214,671	125,031,378	123,991,411	123,086,946	122,176,038	121,123,401	126,695,839	126,386,423	125,212,526	124,038,629	123,006,919	122,109,635	121,205,960	120,161,681	125,212,526
Commercial	41,432,161	40,652,393	40,513,610	40,382,991	40,330,790	40,337,572	40,320,188	40,236,515	41,103,190	40,329,613	40,191,932	40,062,350	40,010,563	40,017,291	40,000,045	39,917,037	40,191,932
Industrial	2,674,929	2,694,184	2,691,460	2,688,896	2,692,174	2,699,564	2,705,531	2,706,010	2,653,691	2,672,792	2,670,090	2,667,547	2,670,798	2,678,129	2,684,049	2,684,524	2,670,090
Public Utilities	361,196	331,446	331,252	331,059	330,866	330,685	330,505	330,325	358,328	328,814	328,622	328,431	328,239	328,060	327,881	327,702	328,622
Senior Citizens	3,785,720	3,727,154	3,691,671	3,656,189	3,620,706	3,585,224	3,549,742	3,514,259	3,756,635	3,698,519	3,663,309	3,628,100	3,592,890	3,557,680	3,522,470	3,487,260	3,663,309
Subtotal	175,963,861	174,803,139	173,442,664	172,090,513	170,965,947	170,039,990	169,082,003	167,910,510	174,567,682	173,416,161	172,066,479	170,725,055	169,609,409	168,690,795	167,740,405	166,578,204	172,066,479
Housing Authority	5,500,770	5,296,456	5,296,456	5,296,456	5,296,456	5,296,456	5,296,456	5,296,456	5,457,253	5,254,555	5,254,555	5,254,555	5,254,555	5,254,555	5,254,555	5,254,555	5,254,555
Charities & Schools	4,810,868	4,978,703	4,978,703	4,978,703	4,978,703	4,978,703	4,978,703	4,978,703	4,773,308	4,939,833	4,939,833	4,939,833	4,939,833	4,939,833	4,939,833	4,939,833	4,939,833
Hospitals & Universities	6,264,652	6,668,808	6,668,808	6,668,808	6,668,808	6,668,808	6,668,808	6,668,808	6,215,724	6,616,723	6,616,723	6,616,723	6,616,723	6,616,723	6,616,723	6,616,723	6,616,723
Hand Bill	14,601,594	14,398,031	14,398,031	14,398,031	14,398,031	14,398,031	14,398,031	14,398,031	14,485,885	14,283,935	14,283,935	14,283,935	14,283,935	14,283,935	14,283,935	14,283,935	14,283,935
Scheduled (Flat Rate)	770	790	790	790	790	790	790	790	764	784	784	784	784	784	784	784	784
Fire Meters	76,930	82,012	82,012	82,012	82,012	82,012	82,012	82,012	76,322	81,363	81,363	81,363	81,363	81,363	81,363	81,363	81,363
City Leased Property	140,623	129,660	129,660	129,660	129,660	129,660	129,660	129,660	139,511	128,634	128,634	128,634	128,634	128,634	128,634	128,634	128,634
City	7,308,331	6,865,826	6,865,826	6,865,826	6,865,826	6,865,826	6,865,826	6,865,826	7,250,514	6,811,510	6,811,510	6,811,510	6,811,510	6,811,510	6,811,510	6,811,510	6,811,510
Sewer Only	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,249,591	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208	1,259,208
Groundwater	2,681,806	2,048,200	2,048,200	2,048,200	2,048,200	2,048,200	2,048,200	2,048,200	2,660,590	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996	2,031,996
Total	218,599,797	216,521,217	215,160,742	213,808,591	212,684,025	211,758,068	210,800,081	209,628,587	216,886,760	214,824,704	213,475,022	212,133,597	211,017,951	210,099,338	209,148,947	207,986,747	213,475,022
									99.22%	99.22%	99.22%	99.22%	99.22%	99.22%	99.22%	99.22%	
Total Less Municipal and Fire	211,214,536	209,573,379	208,212,904	206,860,753	205,736,187	204,810,230	203,852,242	202,680,749	209,559,925	207,931,830	206,582,148	205,240,724	204,125,078	203,206,465	202,256,074	201,093,874	
									99.22%	99.22%	99.22%	99.22%	99.22%	99.22%	99.22%	99.22%	
								Financial Planning Model	208,315,309	206,705,515	205,412,062	204,126,523	203,057,358	202,177,018	201,266,225	200,152,445	
								Total divided by above line	104.11%	103.93%	103.93%	103.92%	103.92%	103.92%	103.92%	103.91%	

	Proposed Increase	Months Effective	Cumulative Increase 2015 - 2022	Cumulative Increase 2018 - 2022
	REF: Financial Planning Model			
2015	0.00%	6	100.00%	
2016	0.00%	12	100.00%	
2017	5.70%	12	105.70%	
2018	5.70%	12	111.72%	105.70%
2019	5.20%	12	117.53%	111.20%
2020	5.20%	12	123.65%	116.98%
2021	5.60%	12	130.57%	123.53%
2022	5.60%	12	137.88%	130.45%

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)	(4) Cumulative Percent Increase (b)	(5) FY 2017 COS Rate Adjustment	(6) FY 2018 COS Rate Adjustment	(7) FY 2019 COS Rate Adjustment	(8) FY 2020 COS Rate Adjustment	(9) Adjusted Billings (c)	(10) Receipts Factor (d) FY 2017	(11) FY 2018	(12) FY 2019	(13) FY 2020	(14) Receipts FY 2017	(15) FY 2018	(16) FY 2019	(17) FY 2020
	SANITARY SEWER CHARGES SERVICE CHARGE			LagRate-8 LagRate-11 LagRate-12		LagRate-14	LagRate-14	LagRate-14	LagRate-14	$	%	%	%	%	$ (6) x (7)	$	$	$
	All classes less municipal																	
	Existing Rates																	
1	FY 2017	0.0		39,345,743	100.00%					0	84.30	10.00	2.00		0	0	0	
	Adjusted COS Rates Effective July 1, 2016																	
2	FY 2017		12.0	40,660,737	100.00%	105.80%				43,019,000	84.30	10.00	2.00		36,265,000	4,302,000	860,000	
	FY 2018		12.0	40,660,737	105.70%	105.80%	106.30%			48,336,000		84.30	10.00	2.00		40,747,000	4,834,000	967,000
	FY 2019		12.0	40,660,737	111.20%	105.80%	106.30%	0.00%		0			84.30	10.00			0	0
	FY 2020		12.0	40,660,737	116.98%	105.80%	106.30%	0.00%	0.00%	0				84.30				0
	Increase in service charge deposit due to rate increase															0	0	0
	Municipal																	
	Existing Rates																	
3	FY 2017	0.0		453,219	100.00%					0	100.00	0.00	0.00		0			
	Adjusted COS Rates Effective July 1, 2016																	
4	FY 2017		12.0	69,988	100.00%	105.80%				74,000	100.00	0.00	0.00		74,000			
	FY 2018		12.0	69,988	105.70%	105.80%	106.30%			83,000		100.00	0.00	0.00		83,000		
	FY 2019		12.0	69,988	111.20%	105.80%	106.30%	0.00%		0			100.00	0.00			0	
	FY 2020		12.0	69,988	116.98%	105.80%	106.30%	0.00%	0.00%	0				100.00				0
	Increase in municipal service charge deposit due to rate increase																	

	VOLUME CHARGE																	
	All classes less municipal and fire																	
	Existing Rates																	
5	FY 2017	0.5		157,138,080	100.00%					6,547,000	84.30	10.00	2.00		5,519,000	655,000	131,000	
	Adjusted COS Rates Effective July 1, 2016									(j)								
6	FY 2017		11.50	165,921,412	100.00%	105.80%				168,230,000	84.30	10.00	2.00		141,818,000	16,823,000	3,365,000	
	FY 2018	0.5	11.50	164,579,987	105.70%	105.80%	106.30%			194,749,000		84.30	10.00	2.00		164,173,000	19,475,000	3,895,000
	FY 2019	0.5	11.50	163,464,341	111.20%	105.80%	106.30%	0.00%		0			84.30	10.00			0	0
	FY 2020	0.5	11.50	162,545,728	116.98%	105.80%	106.30%	0.00%	0.00%	0				84.30				0
	Municipal and fire																	
	Existing Rates																	
7	FY 2017	0.5		6,460,721	100.00%					269,000	100.00	0.00	0.00		269,000			
	Adjusted COS Rates Effective July 1, 2016									(j)								
8	FY 2017		11.50	6,741,522	100.00%	105.80%				6,835,000	100.00	0.00	0.00		6,835,000			
	FY 2018	0.5	11.50	6,741,522	105.70%	105.80%	106.30%			7,977,000		100.00	0.00	0.00		7,977,000		
	FY 2019	0.5	11.50	6,741,522	111.20%	105.80%	106.30%	0.00%		0			100.00	0.00			0	
	FY 2020	0.5	11.50	6,741,522	116.98%	105.80%	106.30%	0.00%	0.00%	0				100.00				0
	SURCHARGE RATES																	
	Existing Rates																	
9	FY 2017	0.0		4,000,000	100.00%					0	84.30	10.00	2.00		0	0	0	
	Adjusted COS Rates Effective July 1, 2016																	
10	FY 2017 (g)		12.0	5,167,981	100.00%	105.80%				5,468,000	84.30	10.00	2.00		4,610,000	547,000	109,000	
	FY 2018		12.0	5,167,981	105.70%	105.80%	106.30%			6,143,000		84.30	10.00	2.00		5,179,000	614,000	123,000
	FY 2019		12.0	5,167,981	111.20%	105.80%	106.30%	0.00%		0			84.30	10.00			0	0
	FY 2020		12.0	5,167,981	116.98%	105.80%	106.30%	0.00%	0.00%	0				84.30				0
				(k)						(i)								
11	FY 2015 Billings (h)			205,935,000	100.00%					205,935,000	2.00				4,119,000			
12	FY 2016 Billings (h)			203,792,000	100.00%					203,792,000	10.00	2.00			20,379,000	4,076,000		
	STORMWATER CHARGES																	
	BILLING & COLLECTION CHARGE																	
	Non City - W&S																	
	Existing Rates																	
1	FY 2017	0.0		10,223,138	100.00%					0	84.30	10.00	2.00		0	0	0	
	Adjusted COS Rates Effective July 1, 2016									(j)								
2	FY 2017		12.0	12,584,821	100.00%	105.80%				13,315,000	84.30	10.00	2.00		11,225,000	1,332,000	266,000	
	FY 2018	0.0	12.0	12,584,821	105.70%	105.80%	106.30%			14,960,000		84.30	10.00	2.00		12,611,000	1,496,000	299,000
	FY 2019	0.0	12.0	12,584,821	111.20%	105.80%	106.30%	0.00%		0			84.30	10.00			0	0
	FY 2020	0.0	12.0	12,584,821	116.98%	105.80%	106.30%	0.00%	0.00%	0				84.30				0
	Non-City - SW Only																	
	Existing Rates																	
1	FY 2017	0.0		1,224,446	100.00%					0	53.80	8.70	2.32		0	0	0	
	Adjusted COS Rates Effective July 1, 2016									(j)								
2	FY 2017		12.0	1,497,137	100.00%	105.80%				1,584,000	53.80	8.70	2.32		852,000	138,000	37,000	
	FY 2018	0.0	12.0	1,497,137	105.70%	105.80%	106.30%			1,780,000		53.80	8.70	2.32		958,000	155,000	41,000
	FY 2019	0.0	12.0	1,497,137	111.20%	105.80%	106.30%	0.00%		0			53.80	8.70			0	0
	FY 2020	0.0	12.0	1,497,137	116.98%	105.80%	106.30%	0.00%	0.00%	0				53.80				0
	City																	
	Existing Rates																	
1	FY 2017	0.0		37,369	100.00%					0	100.00	0.00	0.00		0			
	Adjusted COS Rates Effective July 1, 2016									(j)								
2	FY 2017		12.0	46,065	100.00%	105.80%				49,000	100.00	0.00	0.00		49,000			
	FY 2018	0.0	12.0	46,065	105.70%	105.80%	106.30%			55,000		100.00	0.00	0.00		55,000		
	FY 2019	0.0	12.0	46,065	111.20%	105.80%	106.30%	0.00%		0			100.00	0.00			0	
	FY 2020	0.0	12.0	46,065	116.98%	105.80%	106.30%	0.00%	0.00%	0				100.00				0

PARCEL AREA CHARGE

	Non City - W&S																	
	Existing Rates																	
1	FY 2017	0.5		130,055,230	100.00%					5,419,000	84.30	10.00	2.00		4,568,000	542,000	108,000	
	Adjusted COS Rates Effective July 1, 2016									(j)								
2	FY 2017		11.50	120,456,914	100.00%	105.80%				122,133,000	84.30	10.00	2.00		102,958,000	12,213,000	2,443,000	
	FY 2018	0.5	11.50	119,469,643	105.70%	105.80%	106.30%			141,370,000		84.30	10.00	2.00		119,175,000	14,137,000	2,827,000
	FY 2019	0.5	11.50	118,434,856	111.20%	105.80%	106.30%	0.00%		0			84.30	10.00			0	0
	FY 2020	0.5	11.50	117,395,810	116.98%	105.80%	106.30%	0.00%	0.00%	0				84.30				0
	Non-City - SW Only																	
	Existing Rates																	
1	FY 2017	0.5		13,067,093	100.00%					544,000	53.80	8.70	2.32		293,000	47,000	13,000	
	Adjusted COS Rates Effective July 1, 2016									(j)								
2	FY 2017		11.50	12,330,203	100.00%	105.80%				12,502,000	53.80	8.70	2.32		6,726,000	1,088,000	290,000	
	FY 2018	0.5	11.50	12,132,258	105.70%	105.80%	106.30%			14,356,000		53.80	8.70	2.32		7,724,000	1,249,000	333,000
	FY 2019	0.5	11.50	11,924,638	111.20%	105.80%	106.30%	0.00%		0			53.80	8.70			0	0
	FY 2020	0.5	11.50	11,715,970	116.98%	105.80%	106.30%	0.00%	0.00%	0				53.80				0
	City																	
	Existing Rates																	
1	FY 2017	0.5		10,765,085	100.00%					449,000	100.00	0.00	0.00		449,000			
	Adjusted COS Rates Effective July 1, 2016									(j)								
2	FY 2017		11.50	10,235,856	100.00%	105.80%				10,378,000	100.00	0.00	0.00		10,378,000			
	FY 2018	0.5	11.50	10,118,153	105.70%	105.80%	106.30%			11,973,000		100.00	0.00	0.00		11,973,000		
	FY 2019	0.5	11.50	9,993,398	111.20%	105.80%	106.30%	0.00%		0			100.00	0.00			0	
	FY 2020	0.5	11.50	9,867,493	116.98%	105.80%	106.30%	0.00%	0.00%	0				100.00				0
										(i)								
	FY 2015 Billings - Non City W&S			142,277,419	100.00%					142,277,419	2.00				2,846,000			
	FY 2016 Billings - Non City W&S			141,313,338	100.00%					141,313,338	10.00	2.00			14,131,000	2,826,000		
	FY 2015 Billings - Non City SW Only			14,485,233	100.00%					14,485,233	2.32				336,000			
	FY 2016 Billings - Non City SW Only			14,498,128	100.00%					14,498,128	8.70	2.32			1,261,000	336,000		
13	Total Receipts														375,960,000	415,580,000	49,582,000	8,485,000
															FY 2017	FY 2018	FY 2019	FY 2020
														Required Receipts	375,166,242	394,690,022	0	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 2015 and FY 2016 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.

(g)

	New Rate	Pounds	Billings
BOD	0.3350	12,688,000	4,250,480
SS	0.3560	2,577,250	917,501
		Total	5,167,981

(h) Adjusted Total Less Municipal and Fire Meters

(i) Column (3) times (1- BILLADJ) or (1-0.00000).

(j) FY 2018 Adjusted Billings include 11.5 months at FY 2018 rates and 0.5 months at FY 2017 rates; FY 2019 Adjusted Billings include 11.5 months at FY 2019 rates and 0.5 months at FY 2018 rates; and FY 2020 Adjusted Billings include 11.5 months at FY 2020 rates and 0.5 months at FY 2019 rates.

(k)

FY 2015 Billings	202,528,246	plus	3,407,219	205,935,000
FY 2016 Billings	199,791,574	plus	4,000,000	203,792,000

	Percent Increase in Rates Required:		(0.004186)	(0.104039)	(0.306499)		(0.052451)	
			0.995814	0.895961	0.693501		0.947549	
	Adjustment Factors ==>	**USE:**	1.058000 (a)	1.063000 (a)	(a)		(a)	

Reference:			FY 2017 $	FY 2018 $	FY 2019 $		FY 2020 $
LagRate-13	Total Receipts		375,960,000	415,580,000	49,582,000		8,485,000
	Requirements:						
	COS		408,098,242	428,654,022			
	Less Wholesale Customers (Including Mgmt Fee)						
LagRate-19	Under Old Rates		LagRate-19a			LagRate-13	
	Under New Rates		(36,349,000)	(37,281,000)	0	* 5.2000%	0
	Plus_ CAP		3,417,000	3,317,000			
	Total Requirements		375,166,242	394,690,022	0		0
	Revenue Surplus/(Deficiency)		793,758	20,889,978	49,582,000		8,485,000
	Total Increasable Receipts		189,602,000	200,789,668	161,768,918		161,768,918
	ADJUSTMENT FACTOR REQUIRED		-0.4186%	-10.4039%	-30.6499%		-5.2451%
			0.21%				
			Test Year FY 2017 Receipts of Test Year FY 2017 Billings $	Test Year FY 2018 Receipts of Test Year FY 2018 Billings $	Test Year FY 2019 Receipts of Test Year FY 2019 Billings $		Test Year FY 2020 Receipts of Test Year FY 2020 Billings $
	General Customers						
LagRate-13	Service Charge		36,265,000	40,747,000	0		0
LagRate-13	Volume Charge		147,337,000	164,173,000	0		0
	Total General Customers		183,602,000	204,920,000	0		0
	City						
LagRate-13	Service Charge		74,000	83,000	0		0
LagRate-13	Volume Charge		7,104,000	7,977,000	0		0
	Total Municipal		7,178,000	8,060,000	0		0
LagRate-13	Surcharge		4,610,000	5,179,000	0		0
	Total		195,390,000	218,159,000	0		0

(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.

Input from Model Application for FY 2018 , FY 2019 and FY 2020

	FY 2018 $	FY 2019 $	FY 2020 $
	LagRate-24	LagRate-24	LagRate-24
Total Wholesale w/Mgmt Fee	37,281,000		
Plus_ CAP	3,317,000		

(1)	(2)	(3)	(4)	(5)				
Meter Size inches	Meter Code	Lag Factor % LagRate-14	General Service Service Charge $/Bill LagRate-2 x Col. (3)	Discount Service Charge (a) $/Bill Col. (4) x (1-25%)	Existing Rates	Existing Rates		
5/8	R	105.8%	7.22	5.42	6.55	4.91	110.23%	110.39%
3/4	Z	105.8%	8.81	6.61	8.04	6.03	109.58%	109.62%
1	Q	105.8%	12.41	9.31	11.39	8.54	108.96%	109.02%
1-1/4	Y	105.8%	16.98	12.74	15.64	11.73	108.57%	108.61%
1-1/2	P	105.8%	20.81	15.61	19.24	14.43	108.16%	108.18%
2	X	105.8%	31.62	23.72	29.31	21.98	107.88%	107.92%
3	O	105.8%	56.02	42.02	52.07	39.05	107.59%	107.61%
4	W	105.8%	96.05	72.04	89.15	66.86	107.74%	107.75%
6	N	105.8%	188.08	141.06	174.77	131.08	107.62%	107.61%
8	V	105.8%	296.11	222.08	275.38	206.54	107.53%	107.52%
10	E	105.8%	428.16	321.12	398.07	298.55	107.56%	107.56%
12	T	105.8%	768.19	576.14	715.77	536.83	107.32%	107.32%
14	H	105.8%	812.23	609.17	0.00	0.00	#DIV/0!	#DIV/0!

Monthly Water Usage		Charge Per Mcf LagRate-2 x Col. (3)	Col. (4) x (1-25%)			
General Service Volume Chai	105.8%	30.99	23.24		28.07	110.40%
				discount vol charge	21.05	110.40%

Wastewater Surcharge		Charge $/lb LagRate-2 x Col. (3)		
BOD in excess of 250 mg/l	105.8%	0.354	0.350	101.14%
SS in excess of 350 mg/l	105.8%	0.377	0.332	113.55%

(a) Discount rate applies to Senior Citizens and Charities.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Abington										
Volume (Mcf)	100,091	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Capacity (cfs)	9.2470	9.2470	9.2470	9.2470	9.2470	9.2470	9.2470	9.2470	9.2470	9.2470
SS (1,000 lbs.)	1,068	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
BOD (1,000 lbs.)	1,295	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Bensalem										
Volume (Mcf)	171,935	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000
Capacity (cfs)	11.7400	11.7400	11.7400	11.7400	11.7400	11.7400	11.7400	11.7400	11.7400	11.7400
SS (1,000 lbs.)	2,189	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240
BOD (1,000 lbs.)	2,697	2,480	2,480	2,480	2,480	2,480	2,480	2,480	2,480	2,480
Bucks County										
Volume (Mcf)	846,849	870,000	870,000	870,000	870,000	870,000	870,000	870,000	870,000	870,000
Capacity (cfs)	85.0800	85.0800	85.0800	85.0800	85.0800	85.0800	85.0800	85.0800	85.0800	85.0800
SS (1,000 lbs.)	11,614	9,700	9,700	9,700	9,700	9,700	9,700	9,700	9,700	9,700
BOD (1,000 lbs.)	10,732	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Cheltenham										
Volume (Mcf)	356,825	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
Capacity (cfs)	20.7500	20.7500	20.7500	20.7500	20.7500	20.7500	20.7500	20.7500	20.7500	20.7500
SS (1,000 lbs.)	3,135	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100
BOD (1,000 lbs.)	2,726	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700
Lower Moreland										
Volume (Mcf)	57,771	58,200	58,200	58,200	58,200	58,200	58,200	58,200	58,200	58,200
Capacity (cfs)	5.9410	5.9410	5.9410	5.9410	5.9410	5.9410	5.9410	5.9410	5.9410	5.9410
SS (1,000 lbs.)	593	600	600	600	600	600	600	600	600	600
BOD (1,000 lbs.)	447	450	450	450	450	450	450	450	450	450
Lower Southampton										
Volume (Mcf)	255,403	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000
Capacity (cfs)	15.7900	15.7900	15.7900	15.7900	15.7900	15.7900	15.7900	15.7900	15.7900	15.7900
SS (1,000 lbs.)	2,427	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700
BOD (1,000 lbs.)	2,139	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100
DELCORA										
Volume (Mcf)	1,110,372	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
Capacity (cfs)	155.0000	155.0000	155.0000	155.0000	155.0000	155.0000	155.0000	155.0000	155.0000	155.0000
SS (1,000 lbs.)	12,729	13,100	13,100	13,100	13,100	13,100	13,100	13,100	13,100	13,100
BOD (1,000 lbs.)	11,305	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100
Lower Merion										
Volume (Mcf)	357,220	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000
Capacity (cfs)	31.5700	31.5700	31.5700	31.5700	31.5700	31.5700	31.5700	31.5700	31.5700	31.5700
SS (1,000 lbs.)	3,718	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700
BOD (1,000 lbs.)	3,208	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
Springfield (ex. Wyndmoor)										
Volume (Mcf)	142,622	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000
Capacity (cfs)	4.6000	4.6000	4.6000	4.6000	4.6000	4.6000	4.6000	4.6000	4.6000	4.6000
SS (1,000 lbs.)	1,845	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
BOD (1,000 lbs.)	1,598	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Upper Darby										
Volume (Mcf)	463,520	470,000	470,000	470,000	470,000	470,000	470,000	470,000	470,000	470,000
Capacity (cfs)	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000
SS (1,000 lbs.)	4,511	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600
BOD (1,000 lbs.)	3,846	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Springfield (Wyndmoor)										
Volume (Mcf)	18,388	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Capacity (cfs)	1.9300	1.9300	1.9300	1.9300	1.9300	1.9300	1.9300	1.9300	1.9300	1.9300
SS (1,000 lbs.)	160	130	130	130	130	130	130	130	130	130
BOD (1,000 lbs.)	122	100	100	100	100	100	100	100	100	100

	2,015
Abington	
Volume ($/Mcf)	1.5385
Capacity ($/cfs)	9,591
SS ($/1,000 lbs.)	186.33
BOD ($/1,000 lbs.)	201.11
Annual Lump Sum ($)	503,000
Management Fee (%)	10
Bensalem	
Volume ($/Mcf)	1.5385
Capacity ($/cfs)	9,591
SS ($/1,000 lbs.)	186.33
BOD ($/1,000 lbs.)	201.11
Annual Lump Sum ($)	93,000
Management Fee (%)	10
Bucks County	
Volume ($/Mcf)	1.5385
Capacity ($/cfs)	9,591
SS ($/1,000 lbs.)	186.33
BOD ($/1,000 lbs.)	201.11
Annual Lump Sum ($)	185,000
Management Fee (%)	10
Cheltenham	
Volume ($/Mcf)	1.4478
Capacity ($/cfs)	4,993
SS ($/1,000 lbs.)	186.33
BOD ($/1,000 lbs.)	201.11
Annual Lump Sum ($)	1,119,000
Management Fee (%)	12
Lower Moreland	
Volume ($/Mcf)	1.5385
Capacity ($/cfs)	9,591
SS ($/1,000 lbs.)	186.33
BOD ($/1,000 lbs.)	201.11
Annual Lump Sum ($)	286,000
Management Fee (%)	12
Lower Southampton	
Volume ($/Mcf)	1.5385
Capacity ($/cfs)	9,591
SS ($/1,000 lbs.)	186.33
BOD ($/1,000 lbs.)	201.11
Annual Lump Sum ($)	1,357,000
Management Fee (%)	10
DELCORA	
Volume ($/Mcf)	1.2626
Capacity ($/cfs)	5,365
SS ($/1,000 lbs.)	179.80
BOD ($/1,000 lbs.)	199.12
Annual Lump Sum ($)	43,000
Management Fee (%)	12
Lower Merion	
Volume ($/Mcf)	1.3026
Capacity ($/cfs)	5,487
SS ($/1,000 lbs.)	182.99
BOD ($/1,000 lbs.)	200.15
Annual Lump Sum ($)	126,000
Management Fee (%)	10
Springfield (ex. Wyndmoor)	
Volume ($/Mcf)	1.6272
Capacity ($/cfs)	11,135
SS ($/1,000 lbs.)	182.99
BOD ($/1,000 lbs.)	200.15
Annual Lump Sum ($)	389,000
Management Fee (%)	12
Upper Darby	
Volume ($/Mcf)	1.3026
Capacity ($/cfs)	5,487
SS ($/1,000 lbs.)	182.99
BOD ($/1,000 lbs.)	200.15
Annual Lump Sum ($)	43,000
Management Fee (%)	10
Springfield (Wyndmoor)	
Volume ($/Mcf)	1.9608
Capacity ($/cfs)	12,951
SS ($/1,000 lbs.)	261.45
BOD ($/1,000 lbs.)	133.47
Annual Lump Sum ($)	138,000
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	Volume $/Mcf Somallo-40	Unit Costs Capacity $/Mcf/day Somallo-40	Suspended Solids $/1,000 lbs Somallo-40	Bod $/1,000 lbs Somallo-40
	Abington,Bensalem, Bucks County,				
	Lower Moreland, and Lower Southampton				
	Northeast WPCP - Preliminary Treatment	0.0960	63.2344		
	Northeast WPCP - Other	1.4921	75.5159	215.6224	240.2889
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.5881	138.7503	215.6224	240.2889
	Cheltenham				
	Northeast WPCP	0.0000	0.0000		
	Northeast WPCP - Other	1.4921	75.5159	215.6224	240.2889
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.4921	75.5159	215.6224	240.2889
	DELCORA				
	Southwest WPCP	1.3920	74.2124	215.3083	172.7469
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.3920	74.2124	215.3083	172.7469
	Lower Merion				
	Southwest WPCP	1.4394	75.9021	219.8477	173.7477
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Neill Drive Pumping Station	0.8373	117.3913		
	CONTRACT ADJUSTMENT	0.0000	0.0000		
	Total	2.2767	193.2934	219.8477	173.7477
	Springfield (less Wyndmoor)				
	Southwest WPCP	1.4394	75.9021	219.8477	173.7477
	Central Schuylkill Pumping Station	0.4327	66.8158		
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.8721	142.7179	219.8477	173.7477
	Upper Darby				
	Southwest WPCP	1.4394	75.9021	219.8477	173.7477
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.4394	75.9021	219.8477	173.7477
	Springfield (Wyndmoor)				
	Southeast WPCP	1.9199	157.0960	321.8911	110.5147
	CONTRACT ADJUSTMENT	0.0000	0.0000	0.0000	0.0000
	Total	1.9199	157.0960	321.8911	110.5147

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)	(3)	(4)	(5)
		Unit Costs			
Contract Customers	Annual Lump Sum Cost $ Retcos-10	Volume $/Mcf Above	Capacity (a) $/cfs Above	Suspended Solids $/1,000 lbs Above	BOD $/1,000 lbs Above
Abington	612,000	1.5881	11,988	215.6224	240.2889
Bensalem	91,000	1.5881	11988	215.6224	240.2889
Bucks County (b)	682,000	1.5881	11988	215.6224	240.2889
Cheltenham	1,313,000	1.4921	6,525	215.6224	240.2889
Lower Moreland	333,000	1.5881	11988	215.6224	240.2889
Lower Southampton	1,666,000	1.5881	11988	215.6224	240.2889
DELCORA (e)	892,000	1.3920	6,412	215.3083	172.7469
Lower Merion (c)(d)	123,000	1.4394	6,558	219.8477	173.7477
Springfield (less Wyndmoor)	446,000	1.8721	12,331	219.8477	173.7477
Upper Darby	41,000	1.4394	6,558	219.8477	173.7477
Springfield (Wyndmoor)	147,000	1.9199	13,573	321.8911	110.5147
Total	6,346,000				

(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 $0.8373 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 $117.39 per Mcf/day ($10,142.6 per cfs) is applicable to costs related to Neill Drive Pump Station.
(e) DELCORA Unit Costs from Somallo-48 and reflect recovery o and strength.

SUMMARY OF EXISTING CHARGES FOR WHOLESALE CONTRACT CUSTOMERS (EXCLUDING MANAGEMENT FEES)

	(1)	(2)	(3)	(4)	(5)
		Unit Costs			
Contract Customers	Annual Lump Sum Cost $ LagRate-16	Volume $/Mcf LagRate-16	Capacity (e) $/cfs LagRate-16	Suspended Solids $/1,000 lbs LagRate-16	BOD $/1,000 lbs LagRate-16
Abington	503,000	1.5385	9,591	186.3307	201.1057
Bensalem	93,000	1.5385	9,591	186.3307	201.1057
Bucks County	185,000	1.5385	9,591	186.3307	201.1057
Cheltenham	1,119,000	1.4478	4,993	186.3307	201.1057
Lower Moreland	286,000	1.5385	9,591	186.3307	201.1057
Lower Southampton	1,357,000	1.5385	9,591	186.3307	201.1057
DELCORA	43,000	1.2626	5,365	179.7959	199.1219
Lower Merion (g)(h)	126,000	1.3026	5,487	182.9871	200.1492
Springfield (less Wyndmoor)	389,000	1.6272	11,135	182.9871	200.1492
Upper Darby	43,000	1.3026	5,487	182.9871	200.1492
Springfield	138,000	1.9608	12,951	261.4507	133.4719
Total	4,282,000				

(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.

	Reference	Abington	Bensalem	Bucks County	Cheltenham	Lower Moreland	Lower Southampton	DELCORA	Lower Merion	Springfield (ex. Wyndmoor)	Upper Darby	Springfield (Wyndmoor)
New Rates												
Volume ($/Mcf)	LagRate-17	1.5881	1.5881	1.5881	1.4921	1.5881	1.5881	1.3920	1.4394	1.8721	1.4394	1.9199
Percent Incr. Over Old Rat	LagRate-16	103.22%	103.22%	103.22%	103.06%	103.22%	103.22%	110.25%	110.50%	115.05%	110.50%	97.91%
Capacity ($/cfs)	LagRate-17	11,988	11,988	11,988	6,525	11,988	11,988	6,412	6,558	12,331	6,558	13,573
Percent Incr. Over Old Rat	LagRate-16	124.99%	124.99%	124.99%	130.68%	124.99%	124.99%	119.52%	119.52%	110.74%	119.52%	104.80%
SS ($/1,000 lbs.)	LagRate-17	215.62	215.62	215.62	215.62	215.62	215.62	215.31	219.85	219.85	219.85	321.89
Percent Incr. Over Old Rat	LagRate-16	115.72%	115.72%	115.72%	115.72%	115.72%	115.72%	119.75%	120.14%	120.14%	120.14%	123.12%
BOD ($/1,000 lbs.)	LagRate-17	240.29	240.29	240.29	240.29	240.29	240.29	172.75	173.75	173.75	173.75	110.51
Percent Incr. Over Old Rat	LagRate-16	119.48%	119.48%	119.48%	119.48%	119.48%	119.48%	86.75%	86.81%	86.81%	86.81%	82.80%
Annual Lump Sum ($)	LagRate-17	612,000	91,000	682,000	1,313,000	333,000	1,666,000	892,000	123,000	446,000	41,000	147,000
Percent Incr. Over Old Rat	LagRate-16	121.67%	97.85%	368.65%	117.34%	116.43%	122.77%	2074.42%	97.62%	114.65%	95.35%	106.52%
Management Fee (%)		10	10	10	12	12	10	12	10	12	10	12

Reference:

B. Billing Units (LagRate-16) x Percent Increase over existing rates (LagRate-18)

Contract Customers	FY 2013 $ Ref. B	FY 2014 $ Ref. B	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	Test Year $	FY 2017 Test Year Receipts Under Existing Rates $
	Receipts											
Camden - Ref. A				Tempory wastewater service to Camden ceased in January 1996							0	
Abington												
Volume	0	0	0	158,810	158,810	158,810	158,810	158,810	158,810	158,810	158,810	
Capacity	0	0	0	110,853	110,853	110,853	110,853	110,853	110,853	110,853	110,853	
SS	0	0	0	237,185	237,185	237,185	237,185	237,185	237,185	237,185	237,185	
BOD	0	0	0	264,318	264,318	264,318	264,318	264,318	264,318	264,318	264,318	
Annual Lump Sum	0	0	0	612,000	612,000	612,000	612,000	612,000	612,000	612,000	612,000	
Management Fee	0	0	0	138,317	138,317	138,317	138,317	138,317	138,317	138,317	138,317	
Subtotal	1,175,552	1,079,428	1,325,499	1,521,483	1,521,483	1,521,483	1,521,483	1,521,483	1,521,483	1,521,483	1,521,483	1,315,290
Bensalem												
Volume	0	0	0	277,918	277,918	277,918	277,918	277,918	277,918	277,918	277,918	
Capacity	0	0	0	140,739	140,739	140,739	140,739	140,739	140,739	140,739	140,739	
SS	0	0	0	482,994	482,994	482,994	482,994	482,994	482,994	482,994	482,994	
BOD	0	0	0	595,916	595,916	595,916	595,916	595,916	595,916	595,916	595,916	
Annual Lump Sum		0	0	91,000	91,000	91,000	91,000	91,000	91,000	91,000	91,000	
Management Fee	0	0	0	158,857	158,857	158,857	158,857	158,857	158,857	158,857	158,857	
Subtotal	1,722,599	1,560,644	1,562,395	1,747,424	1,747,424	1,747,424	1,747,424	1,747,424	1,747,424	1,747,424	1,747,424	1,530,055
Bucks County												
Volume	0	0	0	1,381,647	1,381,647	1,381,647	1,381,647	1,381,647	1,381,647	1,381,647	1,381,647	
Capacity	0	0	0	1,019,939	1,019,939	1,019,939	1,019,939	1,019,939	1,019,939	1,019,939	1,019,939	
SS	0	0	0	2,091,537	2,091,537	2,091,537	2,091,537	2,091,537	2,091,537	2,091,537	2,091,537	
BOD	0	0	0	2,306,773	2,306,773	2,306,773	2,306,773	2,306,773	2,306,773	2,306,773	2,306,773	
Annual Lump Sum (a)	0	0	0	682,000	682,000	682,000	682,000	682,000	682,000	682,000	682,000	
Management Fee	0	0	0	748,190	748,190	748,190	748,190	748,190	748,190	748,190	748,190	
Subtotal	6,447,843	6,795,793	7,288,963	8,230,086	8,230,086	8,230,086	8,230,086	8,230,086	8,230,086	8,230,086	8,230,086	6,685,272
Cheltenham												
Volume	0	0	0	522,235	522,235	522,235	522,235	522,235	522,235	522,235	522,235	
Capacity	0	0	0	135,394	135,394	135,394	135,394	135,394	135,394	135,394	135,394	
SS	0	0	0	668,429	668,429	668,429	668,429	668,429	668,429	668,429	668,429	
BOD	0	0	0	648,780	648,780	648,780	648,780	648,780	648,780	648,780	648,780	
Annual Lump Sum	0	0	0	1,313,000	1,313,000	1,313,000	1,313,000	1,313,000	1,313,000	1,313,000	1,313,000	
Management Fee	0	0	0	394,541	394,541	394,541	394,541	394,541	394,541	394,541	394,541	
Subtotal	3,257,491	2,878,829	3,216,315	3,682,379	3,682,379	3,682,379	3,682,379	3,682,379	3,682,379	3,682,379	3,682,379	3,191,939
Lower Moreland												
Volume	0	0	0	92,427	92,427	92,427	92,427	92,427	92,427	92,427	92,427	
Capacity	0	0	0	71,221	71,221	71,221	71,221	71,221	71,221	71,221	71,221	
SS	0	0	0	129,373	129,373	129,373	129,373	129,373	129,373	129,373	129,373	
BOD	0	0	0	108,130	108,130	108,130	108,130	108,130	108,130	108,130	108,130	
Annual Lump Sum	0	0	0	333,000	333,000	333,000	333,000	333,000	333,000	333,000	333,000	
Management Fee	0	0	0	88,098	88,098	88,098	88,098	88,098	88,098	88,098	88,098	
Subtotal	654,973	728,027	708,188	822,249	822,249	822,249	822,249	822,249	822,249	822,249	822,249	727,795
Lower Southampton												
Volume	0	0	0	428,787	428,787	428,787	428,787	428,787	428,787	428,787	428,787	
Capacity	0	0	0	189,291	189,291	189,291	189,291	189,291	189,291	189,291	189,291	
SS	0	0	0	582,180	582,180	582,180	582,180	582,180	582,180	582,180	582,180	
BOD	0	0	0	504,607	504,607	504,607	504,607	504,607	504,607	504,607	504,607	
Annual Lump Sum	0	0	0	1,666,000	1,666,000	1,666,000	1,666,000	1,666,000	1,666,000	1,666,000	1,666,000	
Management Fee	0	0	0	337,087	337,087	337,087	337,087	337,087	337,087	337,087	337,087	
Subtotal	2,909,042	2,868,592	3,062,045	3,707,952	3,707,952	3,707,952	3,707,952	3,707,952	3,707,952	3,707,952	3,707,952	3,178,177

(a) See footnote at bottom of LagRate-19a.

Reference:

B. Billing Units (LagRate-16) x Percent Increase over existing rates (LagRate-18), except FY 2013 through FY 2015 are under existing rates.

Contract Customers	Receipts FY 2013 $ Ref. B	FY 2014 $ Ref. B	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 2017 Test Year $		FY 2017 Test Year Receipts Under Existing Rates $	
DELCORA														
Volume	0	0	0	1,670,400	1,670,400	1,670,400	1,670,400	1,670,400	1,670,400	1,670,400	1,670,400			
Capacity	0	0	0	993,860	993,860	993,860	993,860	993,860	993,860	993,860	993,860			
SS	0	0	0	2,820,539	2,820,539	2,820,539	2,820,539	2,820,539	2,820,539	2,820,539	2,820,539			
BOD	0	0	0	1,917,491	1,917,491	1,917,491	1,917,491	1,917,491	1,917,491	1,917,491	1,917,491			
Annual Lump Sum	0	0	0	892,000	892,000	892,000	892,000	892,000	892,000	892,000	892,000			
Management Fee	0	0	0	995,315	995,315	995,315	995,315	995,315	995,315	995,315	995,315			
Subtotal	6,712,457	7,680,973	7,633,975	9,289,605	9,289,605	9,289,605	9,289,605	9,289,605	9,289,605	9,289,605	9,289,605		8,231,187	
Lower Merion														
Volume (c)	0	0	0	530,492	530,492	530,492	530,492	530,492	530,492	530,492	530,492			
Capacity (c)	0	0	0	220,536	220,536	220,536	220,536	220,536	220,536	220,536	220,536			
SS	0	0	0	813,436	813,436	813,436	813,436	813,436	813,436	813,436	813,436			
BOD	0	0	0	555,993	555,993	555,993	555,993	555,993	555,993	555,993	555,993			
Annual Lump Sum	0	0	0	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000			
Management Fee	0	0	0	224,346	224,346	224,346	224,346	224,346	224,346	224,346	224,346			
Subtotal	2,390,651	2,594,719	2,295,777	2,467,803	2,467,803	2,467,803	2,467,803	2,467,803	2,467,803	2,467,803	2,467,803		2,294,259	
Springfield (less Wyndmoor)														
Volume	0	0	0	299,536	299,536	299,536	299,536	299,536	299,536	299,536	299,536			
Capacity	0	0	0	56,723	56,723	56,723	56,723	56,723	56,723	56,723	56,723			
SS	0	0	0	373,741	373,741	373,741	373,741	373,741	373,741	373,741	373,741			
BOD	0	0	0	312,746	312,746	312,746	312,746	312,746	312,746	312,746	312,746			
Annual Lump Sum	0	0	0	446,000	446,000	446,000	446,000	446,000	446,000	446,000	446,000			
Management Fee	0	0	0	178,650	178,650	178,650	178,650	178,650	178,650	178,650	178,650			
Subtotal	1,467,661	2,051,437	1,489,263	1,667,396	1,667,396	1,667,396	1,667,396	1,667,396	1,667,396	1,667,396	1,667,396		1,536,550	
Upper Darby														
Volume	0	0	0	676,518	676,518	676,518	676,518	676,518	676,518	676,518	676,518			
Capacity	0	0	0	229,530	229,530	229,530	229,530	229,530	229,530	229,530	229,530			
SS	0	0	0	1,011,299	1,011,299	1,011,299	1,011,299	1,011,299	1,011,299	1,011,299	1,011,299			
BOD	0	0	0	694,991	694,991	694,991	694,991	694,991	694,991	694,991	694,991			
Annual Lump Sum	0	0	0	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000			
Management Fee	0	0	0	265,334	265,334	265,334	265,334	265,334	265,334	265,334	265,334			
Subtotal	2,316,463	3,059,522	2,677,516	2,918,672	2,918,672	2,918,672	2,918,672	2,918,672	2,918,672	2,918,672	2,918,672		2,738,565	
Springfield (Wyndmoor)														
Volume	0	0	0	36,478	36,478	36,478	36,478	36,478	36,478	36,478	36,478			
Capacity	0	0	0	26,196	26,196	26,196	26,196	26,196	26,196	26,196	26,196			
SS	0	0	0	41,846	41,846	41,846	41,846	41,846	41,846	41,846	41,846			
BOD	0	0	0	11,051	11,051	11,051	11,051	11,051	11,051	11,051	11,051			
Annual Lump Sum	0	0	0	147,000	147,000	147,000	147,000	147,000	147,000	147,000	147,000			
Management Fee	0	0	0	31,509	31,509	31,509	31,509	31,509	31,509	31,509	31,509			
Subtotal	248,596	261,047	287,993	294,080	294,080	294,080	294,080	294,080	294,080	294,080	294,080		277,297	
Total	29,303,329	31,559,011	31,547,929	36,349,129	36,349,129	36,349,129	36,349,129	36,349,129	36,349,129	36,349,129	36,349,129		31,706,385	4,642,744
CHECK	29,303,329	31,559,011	31,547,929									CHECK	31,706,385	

(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.

Line No.	Customer Class	(1) Allocated Cost of Service $ Retcos-17	(2) Discounted COS $	(3) Cost of Service With Discount $ (1) or (2)	(4) Deficiency $ (1) - (3)	(5) Recovery of Deficiency $	(6) Adjusted Cost of Service $ (3) + (5)	(7) Percent Change ((6) - (1)) / (1)
1	Residential Excluding Senior Citizens	121,714,358		121,714,358	0	2,815,009	124,529,367	2.31%
2	Commercial	38,964,840		38,964,840		901,179	39,866,019	2.31%
3	Industrial	2,582,031		2,582,031		59,717	2,641,748	2.31%
4	Public Utilities	316,569		316,569		7,322	323,891	2.31%
5	Senior Citizens	4,747,581	3,560,686	3,560,686	1,186,895	82,352	3,643,037	-23.27%
6	Sewer Only	1,216,673		1,216,673		28,139	1,244,812	2.31%
7	Groundwater	2,046,766		2,046,766		47,338	2,094,104	2.31%
8	Surcharge	5,310,012		5,310,012		122,810	5,432,822	2.31%
9	Housing Authority	5,358,725	5,090,789	5,090,789	267,936	117,740	5,208,528	-2.80%
10	Charities and Schools	6,382,660	4,786,995	4,786,995	1,595,665	110,714	4,897,709	-23.27%
11	Hospitals and Universities	8,535,135	6,401,351	6,401,351	2,133,784	148,050	6,549,402	-23.27%
12	Hand Bill	14,008,351		14,008,351		323,985	14,332,336	2.31%
13	Scheduled (Flat Rate)	468		468		11	479	2.31%
14	Water Treatment Plant Sludge	10,951,693		10,951,693		253,291	11,204,984	2.31%
15	Private Fire Connections	93,322		93,322		2,158	95,480	2.31%
16	City Leased	137,103		137,103		3,171	140,274	2.31%
17	City	6,974,029		6,974,029	0	161,295	7,135,324	2.31%
18	Total Retail Service	229,340,316	19,839,821	224,156,036	5,184,280	5,184,280	229,340,316	0.00%
19								
20	Contract Service	36,224,286		36,224,286	0		36,224,286	0.00%
21	Total System	265,564,602	19,839,821	260,380,322	5,184,280	5,184,280	265,564,602	0.00%

SUMMARY OF ALLOCATED COST OF SERVICE
FOR CONTRACT CUSTOMERS
Test Year 2017

	(1) Allocated Investment $	(2) Allocated Depreciable Investment $	(3) O&M Expense $	(4) Depreciation Expense (b) $	(5) Return on Investment (c) $	(6) Management Fee $	(7) Allocated Cost of Service $	FY 2017 Test Year Receipts Under Proposed Rates $	Difference $	
	Retcos-11	Retcos-11	Retcos-11	Retcos-11	Retcos-11	Rates-7				
Abington	5,804,000	5,786,000	813,000	141,120	435,300	138,366	1,527,786	1,521,483	6,303	
Bensalem	9,836,000	9,805,000	1,584,000	(a)	(a)	158,857	1,742,857	1,747,424	(4,567)	
Bucks County	31,134,000	31,030,000	6,762,000	121,900	483,600	748,148	8,115,648	8,230,086	(114,438)	Direct Chemical Costs
Cheltenham	12,692,000	12,649,000	2,019,000	314,480	951,900	394,588	3,679,968	3,682,379	(2,411)	
DELCORA	55,221,000	55,066,000	7,505,000	174,125	613,350	995,382	9,287,857	9,289,605	(1,748)	
Lower Merion	17,660,000	17,613,000	2,250,000	(a)	(a)	224,346	2,474,346	2,467,803	6,543	
Lower Moreland	2,877,000	2,870,000	451,000	67,560	215,775	88,146	822,481	822,249	232	
Lower Southampton	21,076,000	21,039,000	2,111,000	289,110	965,983	337,096	3,703,189	3,707,952	(4,763)	
Springfield (excl. Wyndmoor)	3,900,000	3,891,000	1,093,000	92,275	292,500	178,626	1,656,401	1,667,396	(10,995)	
Springfield (Wyndmoor)	1,276,000	1,275,000	136,000	30,220	95,700	31,497	293,417	294,080	(663)	
Upper Darby	17,728,000	17,677,000	2,655,000	(a)	(a)	265,336	2,920,336	2,918,672	1,664	
Total	179,204,000	178,701,000	27,379,000	1,230,790	4,054,108	3,560,388	36,224,286	36,349,129	(124,843)	

(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 2017

Line No.	Customer Class	(1) Revenue Under Existing Rates (a) $	(2) Allocated Cost of Service $ Retcos-17	(3) Adjusted Cost of Service $ LagRate-20	(4) Indicated Increase (Decrease) Required % (3)/(1)-1
1	Residential Excluding Senior Citizens	115,791,162	121,714,358	124,529,367	7.5
2	Commercial	37,172,447	38,964,840	39,866,019	7.2
3	Industrial	2,467,486	2,582,031	2,641,748	7.1
4	Public Utilities	304,886	316,569	323,891	6.2
5	Senior Citizens	3,386,656	4,747,581	3,643,037	7.6
6	Housing Authority	4,857,022	5,358,725	5,208,528	7.2
7	Charities and Schools	4,567,300	6,382,660	4,897,709	7.2
8	Hospitals and Universities	6,104,310	8,535,135	6,549,402	7.3
9	Hand Bill	13,377,520	14,008,351	14,332,336	7.1
10	Scheduled (Flat Rate)	724	468	479	(33.8)
11	Fire Meters	75,000	93,322	95,480	27.3
12	City Leased	130,867	137,103	140,274	7.2
13	City	6,913,940	6,974,029	7,135,324	3.2
14	Sewer Only	1,162,234	1,216,673	1,244,812	7.1
15	Groundwater	1,966,024	2,046,766	2,094,104	6.5
16	Surcharge	4,000,000	5,310,012	5,432,822	35.8
17	Total Retail Service	202,277,579	218,388,623	218,135,332	7.8
18	Contract Service	31,706,385	36,224,286	36,224,286	14.2
19	Total System	233,983,964	254,612,909	254,359,618	8.7

(a) Test Year Revenues under existing rates:

Receipts Factor (RECPTS)		2.00	10.00	84.30	
		Billings Under Existing Rates			
		2015 Billings LagRate-4	2016 Billings LagRate-4	2017 Billings LagRate-4	**Receipts**
Residential (excluding Senior Citizens)		122,221,470	121,203,721	120,078,720	115,791,162
Commercial		39,653,899	38,696,288	38,564,342	37,172,447
Industrial		2,560,094	2,564,652	2,562,063	2,467,486
Public Utilities		346,335	316,134	315,950	304,886
Senior Citizens		3,622,272	3,544,694	3,510,963	3,386,656
Housing Authority		5,261,729	5,039,011	5,039,011	4,857,022
"N" Charities		4,611,440	4,745,569	4,745,569	4,567,300
"6 Cent" Charities		5,993,562	6,346,171	6,346,171	6,104,310
Hand Bill		14,152,964	13,885,960	13,885,960	13,377,520
Scheduled (Flat Rate)		737	752	752	724
Fire Meters		73,520	77,974	77,974	75,000
City Prop. Leased to Others (821)		146,883	135,662	135,662	130,867
City		5,787,062	6,913,940	6,913,940	6,913,940	**<=== No lag is applied to City billings.**
Sewer Only		1,213,040	1,206,759	1,206,759	1,162,234
Ground Water Charges		2,670,300	2,028,227	2,028,227	1,966,024
Townships (LagRate-19a)		31,559,011	31,547,929	31,706,385	31,706,385
Total (excluding Surcharge)		239,874,320	238,253,444	237,118,447	229,983,964
Surcharge (above)				198,498,122	4,000,000
Total					233,983,964
Total Per Cash Flow					386,091,052	Not including stormwater revenue
Cash Flow Total Less This Page Total					152,107,088
Percent Error of Cash Flow Total					39.4%

COMPARISON OF CONTRACT SERVICE REVENUE
UNDER EXISTING AND ADJUSTED RATES
TEST YEAR 2017

	(1)	(2)	(3)	(4)	(5)	(6)
		Existing Rates		Adjusted Rates		
	Units of Service	Unit Charge $/unit	Revenue $	Unit Charge $/unit	Revenue $	Revenue Difference $
	Rates-6	LagRate-16	(1) x (2)	LagRate-17	(1) x (4)	(5) - (3)
Abington						
O&M Charges						
Volume (Mcf)	100,000	1.5385	153,850	1.5881	158,810	4,960
Capacity (cfs)	9.2470	9,591	88,688	11,988	110,853	22,165
Suspended Solids (1,000 lbs)	1,100	186.33	204,964	215.62	237,185	32,221
BOD (1,000 lbs)	1,100	201.11	221,216	240.29	264,318	43,102
Subtotal			668,718		771,166	102,448
Lump Sum Charge		503,000	503,000	612,000	612,000	109,000
Management Fee		10%	117,172	10%	138,317	21,145
Total Service Charge			1,288,890		1,521,483	232,593
Bensalem						
O&M Charges						
Volume (Mcf)	175,000	1.5385	269,238	1.5881	277,918	8,680
Capacity (cfs)	11.7400	9,591	112,598	11,988	140,739	28,141
Suspended Solids (1,000 lbs)	2,240	186.33	417,381	215.62	482,994	65,613
BOD (1,000 lbs)	2,480	201.11	498,742	240.29	595,916	97,174
Subtotal			1,297,959		1,497,567	199,608
Lump Sum Charge		93,000	93,000	91,000	91,000	(2,000)
Management Fee		10%	139,096	10%	158,857	19,761
Total Service Charge			1,530,055		1,747,424	217,369
Bucks County						
O&M Charges						
Volume (Mcf)	870,000	1.5385	1,338,495	1.5881	1,381,647	43,152
Capacity (cfs)	85.0800	9,591	816,002	11,988	1,019,939	203,937
Suspended Solids (1,000 lbs)	9,700	186.33	1,807,408	215.62	2,091,537	284,129
BOD (1,000 lbs)	9,600	201.11	1,930,615	240.29	2,306,773	376,158
Subtotal			5,892,520		6,799,896	907,376
Lump Sum Charge (a)		185,000	185,000	682,000	682,000	497,000
Management Fee		10%	607,752	10%	748,190	140,438
Total Service Charge			6,685,272		8,230,086	1,544,814
Cheltenham						
O&M Charges						
Volume (Mcf)	350,000	1.4478	506,730	1.4921	522,235	15,505
Capacity (cfs)	20.7500	4,993	103,605	6,525	135,394	31,789
Suspended Solids (1,000 lbs)	3,100	186.33	577,625	215.62	668,429	90,804
BOD (1,000 lbs)	2,700	201.11	542,985	240.29	648,780	105,795
Subtotal			1,730,945		1,974,838	243,893
Lump Sum Charge		1,119,000	1,119,000	1,313,000	1,313,000	194,000
Management Fee		12%	341,993	12%	394,541	52,548
Total Service Charge			3,191,938		3,682,379	490,441
Lower Moreland						
O&M Charges						
Volume (Mcf)	58,200	1.5385	89,541	1.5881	92,427	2,886
Capacity (cfs)	5.9410	9,591	56,980	11,988	71,221	14,241
Suspended Solids (1,000 lbs)	600	186.33	111,798	215.62	129,373	17,575
BOD (1,000 lbs)	450	201.11	90,498	240.29	108,130	17,632
Subtotal			348,817		401,151	52,334
Lump Sum Charge		286,000	286,000	333,000	333,000	47,000
Management Fee		12%	76,178	12%	88,098	11,920
Total Service Charge			710,995		822,249	111,254
Lower Southampton						
O&M Charges						
Volume (Mcf)	270,000	1.5385	415,395	1.5881	428,787	13,392
Capacity (cfs)	15.7900	9,591	151,442	11,988	189,291	37,849
Suspended Solids (1,000 lbs)	2,700	186.33	503,093	215.62	582,180	79,087
BOD (1,000 lbs)	2,100	201.11	422,322	240.29	504,607	82,285
Subtotal			1,492,252		1,704,865	212,613
Lump Sum Charge		1,357,000	1,357,000	1,666,000	1,666,000	309,000
Management Fee		10%	284,925	10%	337,087	52,162
Total Service Charge			3,134,177		3,707,952	573,775

(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.

	(7)	(8)	(9)	(10)	(11)	(12)
		Existing Rates		Adjusted Rates		
	Units of Service	Unit Charge $/unit	Revenue $	Unit Charge $/unit	Revenue $	Revenue Difference $
	Ref. A	LagRate-16	(7) x (8)	LagRate-17	(7) x (10)	(11) - (9)
DELCORA						
O&M Charges						
Volume (Mcf)	1,200,000	1.2626	1,515,120	1.3920	1,670,400	155,280
Capacity (cfs)	155.0000	5,365	831,575	6,412	993,860	162,285
Suspended Solids (1,000 lbs)	13,100	179.80	2,355,326	215.31	2,820,539	465,213
BOD (1,000 lbs)	11,100	199.12	2,210,253	172.75	1,917,491	(292,762)
Subtotal			6,912,274		7,402,290	490,016
Lump Sum Charge		43,000	43,000	0	0	(43,000)
Management Fee		12%	834,633	12%	888,275	53,642
Total Service Charge			7,789,907		8,290,565	500,658
Lower Merion						
O&M Charges						
Volume (Mcf) (b)	360,000	1.3026	468,936	1.4394	530,492	61,556
Capacity (cfs) (b)	31.5700	5,487	173,225	6,558	220,536	47,311
Suspended Solids (1,000 lbs)	3,700	182.99	677,052	219.85	813,436	136,384
BOD (1,000 lbs)	3,200	200.15	640,477	173.75	555,993	(84,484)
Subtotal			1,959,690		2,120,457	160,767
Lump Sum Charge		126,000	126,000	123,000	123,000	(3,000)
Management Fee		10%	208,569	10%	224,346	15,777
Total Service Charge			2,294,259		2,467,803	173,544
Springfield (less Wyndmoor)						
O&M Charges						
Volume (Mcf)	160,000	1.6272	260,352	1.8721	299,536	39,184
Capacity (cfs)	4.6000	11,135	51,221	12,331	56,723	5,502
Suspended Solids (1,000 lbs)	1,700	182.99	311,078	219.85	373,741	62,663
BOD (1,000 lbs)	1,800	200.15	360,269	173.75	312,746	(47,523)
Subtotal			982,920		1,042,746	59,826
Lump Sum Charge		389,000	389,000	446,000	446,000	57,000
Management Fee		10%	137,192	10%	148,875	11,683
Total Service Charge			1,509,112		1,637,621	128,509
Upper Darby						
O&M Charges						
Volume (Mcf)	470,000	1.3026	612,222	1.4394	676,518	64,296
Capacity (cfs)	35.0000	5,487	192,045	6,558	229,530	37,485
Suspended Solids (1,000 lbs)	4,600	182.99	841,741	219.85	1,011,299	169,558
BOD (1,000 lbs)	4,000	200.15	800,597	173.75	694,991	(105,606)
Subtotal			2,446,605		2,612,338	165,733
Lump Sum Charge		43,000	43,000	41,000	41,000	(2,000)
Management Fee		10%	248,961	10%	265,334	16,373
Total Service Charge			2,738,566		2,918,672	180,106
Springfield (Wyndmoor)						
O&M Charges						
Volume (Mcf)	19,000	1.9608	37,255	1.9199	36,478	(777)
Capacity (cfs)	1.9300	12,951	24,995	13,573	26,196	1,201
Suspended Solids (1,000 lbs)	130	261.45	33,989	321.89	41,846	7,857
BOD (1,000 lbs)	100	133.47	13,347	110.51	11,051	(2,296)
Subtotal			109,586		115,571	5,985
Lump Sum Charge		138,000	138,000	147,000	147,000	9,000
Management Fee		12%	29,710	12%	31,509	1,799
Total Service Charge			277,296		294,080	16,784
Total Contract Service Revenue			31,150,467		35,320,314	4,169,847

Reference: Retcos-17
LagRate-21

WASTEWATER UTILITY
COST OF SERVICE
TEST YEAR 2017

Line No.	Customer Class	(1) Operation and Maintenance Expense (a) $	(2) Capital Cost (a) $	(3) Total Cost of Service $
1	Residential Excluding Senior Citizens	84,483,251	37,231,107	121,714,358
2	Commercial	25,701,589	13,263,251	38,964,840
3	Industrial	1,686,296	895,735	2,582,031
4	Public Utilities	206,590	109,979	316,569
5	Senior Citizens	3,355,139	1,392,442	4,747,581
6	Surcharge	4,047,275	1,262,737	5,310,012
7	Housing Authority	3,552,175	1,806,550	5,358,725
8	Charities and Schools	4,167,277	2,215,383	6,382,660
9	Hospitals & Universities	5,537,011	2,998,124	8,535,135
10	Hand Billed	9,082,508	4,925,843	14,008,351
11	Scheduled (Flat Rate)	317	151	468
12	Private Fire Connections	61,424	31,898	93,322
13	City Leased	89,317	47,786	137,103
14	City	4,529,381	2,444,648	6,974,029
15	Total Retail Service	146,499,550	68,625,634	215,125,184
16				
17	Contract Service	27,379,000	8,845,286	36,224,286
18	Total System	173,878,550	77,470,920	251,349,470

(a) Total cost of service excludes costs associated with water treatment

Water Treatment Plant Sludge	7,377,127	3,574,566	10,951,693
Cost of Service to be Derived from Rates	181,255,677	81,045,486	262,301,163
CHECK	261,166,620	146,931,622	408,098,242
	(79,910,943)	(65,886,136)	(145,797,079)

PROPOSED WASTEWATER RATES FOR GENERAL SERVICE PRIOR TO STORMWATER ADJUSTMENT

Service Charge

Meter Size inches	Monthly Charge $
5/8	7.22
3/4	8.81
1	12.41
1 1/4	16.98
1 1/2	20.81
2	31.62
3	56.02
4	96.05
6	188.08
8	296.11
10	428.16
12	768.19

Quantity Charge

Monthly Water Usage	Charge Per Mcf $
All billable water usage	30.99
Groundwater Charge	11.41

Surcharge Rates

BOD ($/lb in excess of 250 mg/l)	0.354
SS ($/lb in excess of 350 mg/l)	0.377

Mcf - thousand cubic feet
mg/l - milligrams per liter

Comparison of Typical Water and Wastewater Bills
Under Existing and Proposed Rates
Prior to Stormwater Adjustment

(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)	(9)			
			Existing Charge			Proposed Charge						
Meter Size Inches	Monthly Use Mcf	Water $	Sewer $	Stormwater $	Total $	Water $	Sewer $	Total $	Increase %	Water % Change	Sewer % Change	Monthly Use Mcf
5/8	0.0	6.46	6.55		13.01	6.62	7.22	13.84	6.4	2.48%	10.23%	0.00
5/8	0.3	18.18	14.97		33.15	19.12	16.52	35.63	7.5	5.17%	10.33%	0.30
5/8	0.5	25.99	20.59		46.57	27.45	22.72	50.16	7.7	5.62%	10.35%	0.50
5/8	0.6	29.89	23.39		53.28	29.39	25.81	55.20	3.6	-1.69%	10.35%	0.60
5/8	0.7	33.80	26.20		59.99	35.78	28.91	64.69	7.8	5.86%	10.36%	0.70
5/8	0.8	37.70	29.01		66.71	39.94	32.01	71.95	7.9	5.94%	10.36%	0.80
5/8	1.7	72.85	54.27		127.11	77.43	59.90	137.33	8.0	6.29%	10.38%	1.70
5/8	2.7	106.64	82.34		188.98	115.37	90.89	206.27	9.1	8.19%	10.39%	2.70
5/8	3.3	125.56	99.18		224.74	137.19	109.49	246.68	9.8	9.26%	10.39%	3.30
5/8	11.0	368.42	315.32		683.74	417.16	348.11	765.27	11.9	13.23%	10.40%	11.00
1	1.7	76.37	59.11		135.47	80.75	65.09	145.84	7.7	5.74%	10.12%	1.70
1	5.0	182.70	151.74		334.44	202.32	167.36	369.68	10.5	10.74%	10.29%	5.00
1	8.0	277.32	235.95		513.27	311.40	260.33	571.73	11.4	12.29%	10.33%	8.00
1	17.0	561.18	488.58		1,049.76	638.64	539.24	1,177.88	12.2	13.80%	10.37%	17.00
2	7.0	258.85	225.80		484.65	287.39	248.55	535.94	10.6	11.03%	10.08%	7.00
2	16.0	542.71	478.43		1,021.14	614.63	527.46	1,142.09	11.8	13.25%	10.25%	16.00
2	33.0	1,078.89	955.62		2,034.51	1,232.75	1,054.29	2,287.04	12.4	14.26%	10.33%	33.00
2	100.0	3,192.07	2,836.31		6,028.38	3,668.87	3,130.62	6,799.49	12.8	14.94%	10.38%	100.00
4	30.0	1,030.22	931.25		1,961.47	1,167.79	1,025.75	2,193.54	11.8	13.35%	10.15%	30.00
4	170.0	5,264.52	4,861.05		10,125.57	5,693.29	5,364.35	11,057.64	9.2	8.14%	10.35%	170.00
4	330.0	9,896.52	9,352.25		19,248.77	10,219.69	10,322.75	20,542.44	6.7	3.27%	10.38%	330.00
4	500.0	14,818.02	14,124.15		28,942.17	15,028.99	15,591.05	30,620.04	5.8	1.42%	10.39%	500.00
6	150.0	4,750.12	4,385.27		9,135.39	5,189.18	4,836.58	10,025.76	9.7	9.24%	10.29%	150.00
6	500.0	14,882.62	14,209.77		29,092.39	15,090.68	15,683.08	30,773.76	5.8	1.40%	10.37%	500.00
6	1,000.0	29,357.62	28,244.77		57,602.39	29,235.68	31,178.08	60,413.76	4.9	-0.42%	10.39%	1,000.00
6	1,500.0	43,832.62	42,279.77		86,112.39	43,380.68	46,673.08	90,053.76	4.6	-1.03%	10.39%	1,500.00
8	750.0	22,194.99	21,327.88		43,522.87	22,234.39	23,538.61	45,773.00	5.2	0.18%	10.37%	750.00
8	1,500.0	43,907.49	42,380.38		86,287.87	43,451.89	46,781.11	90,233.00	4.6	-1.04%	10.38%	1,500.00
8	2,000.0	58,382.49	56,415.38		114,797.87	57,596.89	62,276.11	119,873.00	4.4	-1.35%	10.39%	2,000.00
8	3,000.0	80,362.49	84,485.38		164,847.87	85,066.89	93,266.11	178,333.00	8.2	5.85%	10.39%	3,000.00
10	600.0	17,946.45	17,240.07		35,186.52	18,081.03	19,022.16	37,103.19	5.4	0.75%	10.34%	600.00
10	1,700.0	49,791.45	48,117.07		97,908.52	49,200.03	53,111.16	102,311.19	4.5	-1.19%	10.38%	1,700.00
10	3,300.0	87,050.45	93,029.07		180,079.52	93,398.03	102,695.16	196,093.19	8.9	7.29%	10.39%	3,300.00
10	6,000.0	146,396.45	168,818.07		315,214.52	167,567.03	186,368.16	353,935.19	12.3	14.46%	10.40%	6,000.00

Meter Size inches	FY 2017 Existing $/Bill	FY 2017 Proposed $/Bill	
	File: WCOS15_17_ver30_A	WCOS15_17_ver30_A.xls	
	LagRate-2	LagRate-12	
5/8	6.46	6.62	102.5%
3/4	7.49	7.57	101.1%
1	9.98	9.94	99.6%
1-1/4	13.10	12.88	98.3%
1-1/2	15.56	15.17	97.5%
2	23.05	22.29	96.7%
3	39.64	37.96	95.8%
4	69.00	66.41	96.2%
6	133.60	128.10	95.9%
8	208.47	199.31	95.6%
10	302.43	289.45	95.7%
12	530.00	503.22	94.9%

Monthly Water Usage

	$/Mcf	$/Mcf	
First 2 Mcf	39.05	41.65	106.7%
Next 98 Mcf	31.54	36.36	115.3%
Next 1,900 Mcf	28.95	28.29	97.7%
Over 2,000 Mcf	21.98	27.47	125.0%

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Sewer Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		2017		2018		2019		2020	
Meter Size inches	Meter Code	General Service Service Charge $/Bill LagRate-30	Discount Service Charge (a) $/Bill Col. (3) x (1-25%)	General Service Service Charge $/Bill LagRate-30	Discount Service Charge (a) $/Bill Col. (5) x (1-25%)	General Service Service Charge $/Bill LagRate-30	Discount Service Charge (a) $/Bill Col. (7) x (1-25%)	General Service Service Charge $/Bill LagRate-30	Discount Service Charge (a) $/Bill Col. (9) x (1-25%)
5/8	R	7.22	5.42	7.54	5.66	#N/A	#N/A	#N/A	#N/A
3/4	Z	8.81	6.61	9.24	6.93	#N/A	#N/A	#N/A	#N/A
1	Q	12.41	9.31	13.06	9.80	#N/A	#N/A	#N/A	#N/A
1-1/4	Y	16.98	12.74	17.90	13.43	#N/A	#N/A	#N/A	#N/A
1-1/2	P	20.81	15.61	21.99	16.49	#N/A	#N/A	#N/A	#N/A
2	X	31.62	23.72	33.45	25.09	#N/A	#N/A	#N/A	#N/A
3	O	56.02	42.02	59.37	44.53	#N/A	#N/A	#N/A	#N/A
4	W	96.05	72.04	101.71	76.28	#N/A	#N/A	#N/A	#N/A
6	N	188.08	141.06	199.28	149.46	#N/A	#N/A	#N/A	#N/A
8	V	296.11	222.08	313.89	235.42	#N/A	#N/A	#N/A	#N/A
10	E	428.16	321.12	453.81	340.36	#N/A	#N/A	#N/A	#N/A
12	T	768.19	576.14	815.18	611.39	#N/A	#N/A	#N/A	#N/A
14	H	0.00	0.00	0.00	0.00	#N/A	#N/A	#N/A	#N/A
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
General Service Volume Char		30.99	23.24	33.22	24.92	#N/A	#N/A	#N/A	#N/A
Wastewater Surcharge		Charge $/lb		Charge $/lb		Charge $/lb		Charge $/lb	
BOD in excess of 250 mg/l		0.354		0.379		#N/A		#N/A	
SS in excess of 350 mg/l		0.377		0.404		#N/A		#N/A	

(a) Discount rate applies to Senior Citizens and Charities.

Water Rates

Meter Size inches	FY 2017 Existing $/Bill	FY 2017 Proposed $/Bill	FY 2017 Existing $/Bill	FY 2018 Proposed $/Bill atb increase = 5.70%	FY 2017 Existing $/Bill	FY 2019 Proposed $/Bill atb increase = 5.20%	FY 2017 Existing $/Bill	FY 2020 Proposed $/Bill atb increase = 5.20%
5/8	6.46	6.62	6.46	6.71	6.46	#N/A	6.46	#N/A
3/4	7.49	7.57	7.49	7.70	7.49	#N/A	7.49	#N/A
1	9.98	9.94	9.98	10.15	9.98	#N/A	9.98	#N/A
1-1/4	13.10	12.88	13.10	13.19	13.10	#N/A	13.10	#N/A
1-1/2	15.56	15.17	15.56	15.56	15.56	#N/A	15.56	#N/A
2	23.05	22.29	23.05	22.89	23.05	#N/A	23.05	#N/A
3	39.64	37.96	39.64	39.06	39.64	#N/A	39.64	#N/A
4	69.00	66.41	69.00	68.28	69.00	#N/A	69.00	#N/A
6	133.60	128.10	133.60	131.81	133.60	#N/A	133.60	#N/A
8	208.47	199.31	208.47	205.19	208.47	#N/A	208.47	#N/A
10	302.43	289.45	302.43	297.94	302.43	#N/A	302.43	#N/A
12	530.00	503.22	530.00	518.82	530.00	#N/A	530.00	#N/A
14	0.00	0.00	0.00	552.78	0.00	#N/A	0.00	#N/A
Monthly Water Usage	$/Mcf	$/Mcf	$/Mcf	$/Mcf	$/Mcf	$/Mcf	$/Mcf	$/Mcf
First 2 Mcf	39.05	41.65	39.05	44.06	39.05	#N/A	39.05	#N/A
Next 98 Mcf	31.54	36.36	31.54	38.45	31.54	#N/A	31.54	#N/A
Next 1,900 Mcf	28.95	28.29	28.95	29.91	28.95	#N/A	28.95	#N/A
Over 2,000 Mcf	21.98	27.47	21.98	29.04	21.98	#N/A	21.98	#N/A

TABLE 0

Comparison of Typical Water and Wastewater Bills
Under Existing and Proposed Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					Original Rate Filing		
		Existing Charge			2017 Charges										
Meter Size Inches	Monthly Use Mcf	Water $	Sewer $	Total $	Water $	Sewer $	Total $	Increase %	Water % Change	Sewer % Change	Monthly Use Mcf	Water % Change	Sewer % Change	Combined Increase %
	LagRate-26	LagRate-26	LagRate-2		LagRate-31	LagRate-31								
5/8	0.0	6.46	6.55	13.01	6.62	7.22	13.84	6.4	2.48%	10.23%	0.00			
5/8	0.3	18.18	14.97	33.15	19.12	16.52	35.63	7.5	5.17%	10.33%	0.30			
5/8	0.5	25.99	20.59	46.57	27.45	22.72	50.16	7.7	5.62%	10.35%	0.50			
5/8	0.6	29.89	23.39	53.28	31.61	25.81	57.42	7.8	5.75%	10.35%	0.60			
5/8	0.7	33.80	26.20	59.99	35.78	28.91	64.69	7.8	5.86%	10.36%	0.70			
5/8	0.8	37.70	29.01	66.71	39.94	32.01	71.95	7.9	5.94%	10.36%	0.80			
5/8	1.7	72.85	54.27	127.11	77.43	59.90	137.33	8.0	6.29%	10.38%	1.70			
5/8	2.7	106.64	82.34	188.98	115.37	90.89	206.27	9.1	8.19%	10.39%	2.70			
5/8	3.3	125.56	99.18	224.74	137.19	109.49	246.68	9.8	9.26%	10.39%	3.30			
5/8	11.0	368.42	315.32	683.74	417.16	348.11	765.27	11.9	13.23%	10.40%	11.00			
1	1.7	76.37	59.11	135.47	80.75	65.09	145.84	7.7	5.74%	10.12%	1.70			
1	5.0	182.70	151.74	334.44	202.32	167.36	369.68	10.5	10.74%	10.29%	5.00			
1	8.0	277.32	235.95	513.27	311.40	260.33	571.73	11.4	12.29%	10.33%	8.00			
1	17.0	561.18	488.58	1,049.76	638.64	539.24	1,177.88	12.2	13.80%	10.37%	17.00			
2	7.0	258.85	225.80	484.65	287.39	248.55	535.94	10.6	11.03%	10.08%	7.00			
2	16.0	542.71	478.43	1,021.14	614.63	527.46	1,142.09	11.8	13.25%	10.25%	16.00			
2	33.0	1,078.89	955.62	2,034.51	1,232.75	1,054.29	2,287.04	12.4	14.26%	10.33%	33.00			
2	100.0	3,192.07	2,836.31	6,028.38	3,668.87	3,130.62	6,799.49	12.8	14.94%	10.38%	100.00			
4	30.0	1,030.22	931.25	1,961.47	1,167.79	1,025.75	2,193.54	11.8	13.35%	10.15%	30.00			
4	170.0	5,264.52	4,861.05	10,125.57	5,693.29	5,364.35	11,057.64	9.2	8.14%	10.35%	170.00			
4	330.0	9,896.52	9,352.25	19,248.77	10,219.69	10,322.75	20,542.44	6.7	3.27%	10.38%	330.00			
4	500.0	14,818.02	14,124.15	28,942.17	15,028.99	15,591.05	30,620.04	5.8	1.42%	10.39%	500.00			
6	150.0	4,750.12	4,385.27	9,135.39	5,189.18	4,836.58	10,025.76	9.7	9.24%	10.29%	7.00			
6	500.0	14,882.62	14,209.77	29,092.39	15,090.68	15,683.08	30,773.76	5.8	1.40%	10.37%	16.00			
6	1,000.0	29,357.62	28,244.77	57,602.39	29,235.68	31,178.08	60,413.76	4.9	-0.42%	10.39%	33.00			
6	1,500.0	43,832.62	42,279.77	86,112.39	43,380.68	46,673.08	90,053.76	4.6	-1.03%	10.39%	100.00			
8	750.0	22,194.99	21,327.88	43,522.87	22,234.39	23,538.61	45,773.00	5.2	0.18%	10.37%	30.00			
8	1,500.0	43,907.49	42,380.38	86,287.87	43,451.89	46,781.11	90,233.00	4.6	-1.04%	10.38%	170.00			
8	2,000.0	58,382.49	56,415.38	114,797.87	57,596.89	62,276.11	119,873.00	4.4	-1.35%	10.39%	330.00			
8	3,000.0	80,362.49	84,485.38	164,847.87	85,066.89	93,266.11	178,333.00	8.2	5.85%	10.39%	500.00			
10	600.0	17,946.45	17,240.07	35,186.52	18,081.03	19,022.16	37,103.19	5.4	0.75%	10.34%	600.00			
10	1,700.0	49,791.45	48,117.07	97,908.52	49,200.03	53,111.16	102,311.19	4.5	-1.19%	10.38%	1,700.00			
10	3,300.0	87,050.45	93,029.07	180,079.52	93,398.03	102,695.16	196,093.19	8.9	7.29%	10.39%	3,300.00			
10	6,000.0	146,396.45	168,818.07	315,214.52	167,567.03	186,368.16	353,935.19	12.3	14.46%	10.40%	3,300.00			

TABLE 0

Comparison of Typical Water and Wastewater Bills Under Existing and Proposed Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
		Existing Charge			2018 Charges						
Meter Size Inches	Monthly Use Mcf LagRate-26	Water $ LagRate-26	Sewer $ LagRate-2	Total $	Water $ LagRate-31	Sewer $ LagRate-31	Total $	Increase %	Water % Change	Sewer % Change	Monthly Use Mcf
5/8	0.0	6.46	6.55	13.01	6.71	7.54	14.25	9.5	3.87%	15.11%	0.00
5/8	0.3	18.18	14.97	33.15	19.93	17.51	37.43	12.9	9.65%	16.93%	0.30
5/8	0.5	25.99	20.59	46.57	28.74	24.15	52.89	13.6	10.60%	17.32%	0.50
5/8	0.6	29.89	23.39	53.28	33.15	27.47	60.62	13.8	10.89%	17.44%	0.60
5/8	0.7	33.80	26.20	59.99	37.55	30.79	68.35	13.9	11.12%	17.54%	0.70
5/8	0.8	37.70	29.01	66.71	41.96	34.12	76.07	14.0	11.29%	17.62%	0.80
5/8	1.7	72.85	54.27	127.11	81.61	64.01	145.63	14.6	12.04%	17.96%	1.70
5/8	2.7	106.64	82.34	188.98	121.75	97.23	218.98	15.9	14.17%	18.09%	2.70
5/8	3.3	125.56	99.18	224.74	144.82	117.17	261.98	16.6	15.33%	18.13%	3.30
5/8	11.0	368.42	315.32	683.74	440.88	372.96	813.84	19.0	19.67%	18.28%	11.00
1	1.7	76.37	59.11	135.47	85.05	69.53	154.59	14.1	11.38%	17.64%	1.70
1	5.0	182.70	151.74	334.44	213.62	179.16	392.78	17.4	16.92%	18.07%	5.00
1	8.0	277.32	235.95	513.27	328.97	278.82	607.79	18.4	18.62%	18.17%	8.00
1	17.0	561.18	488.58	1,049.76	675.02	577.80	1,252.82	19.3	20.29%	18.26%	17.00
2	7.0	258.85	225.80	484.65	303.26	265.99	569.25	17.5	17.16%	17.80%	7.00
2	16.0	542.71	478.43	1,021.14	649.31	564.97	1,214.28	18.9	19.64%	18.09%	16.00
2	33.0	1,078.89	955.62	2,034.51	1,302.96	1,129.71	2,432.67	19.6	20.77%	18.22%	33.00
2	100.0	3,192.07	2,836.31	6,028.38	3,879.11	3,355.45	7,234.56	20.0	21.52%	18.30%	100.00
4	30.0	1,030.22	931.25	1,961.47	1,233.00	1,098.31	2,331.31	18.9	19.68%	17.94%	30.00
4	170.0	5,264.52	4,861.05	10,125.57	6,018.20	5,749.11	11,767.31	16.2	14.32%	18.27%	170.00
4	330.0	9,896.52	9,352.25	19,248.77	10,803.80	11,064.31	21,868.11	13.6	9.17%	18.31%	330.00
4	500.0	14,818.02	14,124.15	28,942.17	15,888.50	16,711.71	32,600.21	12.6	7.22%	18.32%	500.00
6	150.0	4,750.12	4,385.27	9,135.39	5,483.53	5,182.28	10,665.81	16.8	15.44%	18.17%	7.00
6	500.0	14,882.62	14,209.77	29,092.39	15,952.03	16,809.28	32,761.31	12.6	7.19%	18.29%	16.00
6	1,000.0	29,357.62	28,244.77	57,602.39	30,907.03	33,419.28	64,326.31	11.7	5.28%	18.32%	33.00
6	1,500.0	43,832.62	42,279.77	86,112.39	45,862.03	50,029.28	95,891.31	11.4	4.63%	18.33%	100.00
8	750.0	22,194.99	21,327.88	43,522.87	23,502.91	25,228.89	48,731.80	12.0	5.89%	18.29%	30.00
8	1,500.0	43,907.49	42,380.38	86,287.87	45,935.41	50,143.89	96,079.30	11.3	4.62%	18.32%	170.00
8	2,000.0	58,382.49	56,415.38	114,797.87	60,890.41	66,753.89	127,644.30	11.2	4.30%	18.33%	330.00
8	3,000.0	80,362.49	84,485.38	164,847.87	89,930.41	99,973.89	189,904.30	15.2	11.91%	18.33%	500.00
10	600.0	17,946.45	17,240.07	35,186.52	19,109.16	20,385.81	39,494.97	12.2	6.48%	18.25%	600.00
10	1,700.0	49,791.45	48,117.07	97,908.52	52,010.16	56,927.81	108,937.97	11.3	4.46%	18.31%	1,700.00
10	3,300.0	87,050.45	93,029.07	180,079.52	98,735.16	110,079.81	208,814.97	16.0	13.42%	18.33%	3,300.00
10	6,000.0	146,396.45	168,818.07	315,214.52	177,143.16	199,773.81	376,916.97	19.6	21.00%	18.34%	3,300.00

TABLE 0

Comparison of Typical Water and Wastewater Bills Under Existing and Proposed Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
		Existing Charge				2019 Charges					
Meter Size Inches	Monthly Use Mcf LagRate-26	Water $ LagRate-26	Sewer $ LagRate-2	Total $	Water $ LagRate-31	Sewer $ LagRate-31	Total $	Increase %	Water % Change	Sewer % Change	Monthly Use Mcf
5/8	0.0	6.46	6.55	13.01	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00
5/8	0.3	18.18	14.97	33.15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.30
5/8	0.5	25.99	20.59	46.57	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.50
5/8	0.6	29.89	23.39	53.28	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.60
5/8	0.7	33.80	26.20	59.99	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.70
5/8	0.8	37.70	29.01	66.71	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.80
5/8	1.7	72.85	54.27	127.11	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	1.70
5/8	2.7	106.64	82.34	188.98	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	2.70
5/8	3.3	125.56	99.18	224.74	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	3.30
5/8	11.0	368.42	315.32	683.74	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	11.00
1	1.7	76.37	59.11	135.47	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	1.70
1	5.0	182.70	151.74	334.44	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	5.00
1	8.0	277.32	235.95	513.27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	8.00
1	17.0	561.18	488.58	1,049.76	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	17.00
2	7.0	258.85	225.80	484.65	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	7.00
2	16.0	542.71	478.43	1,021.14	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	16.00
2	33.0	1,078.89	955.62	2,034.51	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	33.00
2	100.0	3,192.07	2,836.31	6,028.38	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	100.00
4	30.0	1,030.22	931.25	1,961.47	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	30.00
4	170.0	5,264.52	4,861.05	10,125.57	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	170.00
4	330.0	9,896.52	9,352.25	19,248.77	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	330.00
4	500.0	14,818.02	14,124.15	28,942.17	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	500.00
6	150.0	4,750.12	4,385.27	9,135.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	7.00
6	500.0	14,882.62	14,209.77	29,092.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	16.00
6	1,000.0	29,357.62	28,244.77	57,602.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	33.00
6	1,500.0	43,832.62	42,279.77	86,112.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	100.00
8	750.0	22,194.99	21,327.88	43,522.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	30.00
8	1,500.0	43,907.49	42,380.38	86,287.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	170.00
8	2,000.0	58,382.49	56,415.38	114,797.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	330.00
8	3,000.0	80,362.49	84,485.38	164,847.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	500.00
10	600.0	17,946.45	17,240.07	35,186.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	600.00
10	1,700.0	49,791.45	48,117.07	97,908.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	1,700.00
10	3,300.0	87,050.45	93,029.07	180,079.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	3,300.00
10	6,000.0	146,396.45	168,818.07	315,214.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	3,300.00

TABLE 0

Comparison of Typical Water and Wastewater Bills Under Existing and Proposed Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
		Existing Charge			2020 Charges						
Meter Size Inches	Monthly Use Mcf	Water $	Sewer $	Total $	Water $	Sewer $	Total $	Increase %	Water % Change	Sewer % Change	Monthly Use Mcf
	LagRate-26	LagRate-26	LagRate-2		LagRate-31	LagRate-31					
5/8	0.0	6.46	6.55	13.01	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00
5/8	0.3	18.18	14.97	33.15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.30
5/8	0.5	25.99	20.59	46.57	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.50
5/8	0.6	29.89	23.39	53.28	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.60
5/8	0.7	33.80	26.20	59.99	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.70
5/8	0.8	37.70	29.01	66.71	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.80
5/8	1.7	72.85	54.27	127.11	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	1.70
5/8	2.7	106.64	82.34	188.98	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	2.70
5/8	3.3	125.56	99.18	224.74	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	3.30
5/8	11.0	368.42	315.32	683.74	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	11.00
1	1.7	76.37	59.11	135.47	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	1.70
1	5.0	182.70	151.74	334.44	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	5.00
1	8.0	277.32	235.95	513.27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	8.00
1	17.0	561.18	488.58	1,049.76	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	17.00
2	7.0	258.85	225.80	484.65	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	7.00
2	16.0	542.71	478.43	1,021.14	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	16.00
2	33.0	1,078.89	955.62	2,034.51	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	33.00
2	100.0	3,192.07	2,836.31	6,028.38	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	100.00
4	30.0	1,030.22	931.25	1,961.47	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	30.00
4	170.0	5,264.52	4,861.05	10,125.57	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	170.00
4	330.0	9,896.52	9,352.25	19,248.77	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	330.00
4	500.0	14,818.02	14,124.15	28,942.17	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	500.00
6	150.0	4,750.12	4,385.27	9,135.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	7.00
6	500.0	14,882.62	14,209.77	29,092.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	16.00
6	1,000.0	29,357.62	28,244.77	57,602.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	33.00
6	1,500.0	43,832.62	42,279.77	86,112.39	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	100.00
8	750.0	22,194.99	21,327.88	43,522.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	30.00
8	1,500.0	43,907.49	42,380.38	86,287.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	170.00
8	2,000.0	58,382.49	56,415.38	114,797.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	330.00
8	3,000.0	80,362.49	84,485.38	164,847.87	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	500.00
10	600.0	17,946.45	17,240.07	35,186.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	600.00
10	1,700.0	49,791.45	48,117.07	97,908.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	1,700.00
10	3,300.0	87,050.45	93,029.07	180,079.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	3,300.00
10	6,000.0	146,396.45	168,818.07	315,214.52	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	3,300.00

TABLE 0

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 2017		FY 2018		FY 2019		FY 2020	
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 %
	LagRate-26	LagRate-32	LagRate-32		LagRate-33		LagRate-34		LagRate-34	
5/8	0.0	13.01	13.84	6.4	14.25	9.5	#N/A	#N/A	#N/A	#N/A
5/8	0.3	33.15	35.63	7.5	37.43	12.9	#N/A	#N/A	#N/A	#N/A
5/8	0.5	46.57	50.16	7.7	52.89	13.6	#N/A	#N/A	#N/A	#N/A
5/8	0.6	53.28	57.42	7.8	60.62	13.8	#N/A	#N/A	#N/A	#N/A
5/8	0.7	59.99	64.69	7.8	68.35	13.9	#N/A	#N/A	#N/A	#N/A
5/8	0.8	66.71	71.95	7.9	76.07	14.0	#N/A	#N/A	#N/A	#N/A
5/8	1.7	127.11	137.33	8.0	145.63	14.6	#N/A	#N/A	#N/A	#N/A
5/8	2.7	188.98	206.27	9.1	218.98	15.9	#N/A	#N/A	#N/A	#N/A
5/8	3.3	224.74	246.68	9.8	261.98	16.6	#N/A	#N/A	#N/A	#N/A
5/8	11.0	683.74	765.27	11.9	813.84	19.0	#N/A	#N/A	#N/A	#N/A
1	1.7	135.47	145.84	7.7	154.59	14.1	#N/A	#N/A	#N/A	#N/A
1	5.0	334.44	369.68	10.5	392.78	17.4	#N/A	#N/A	#N/A	#N/A
1	8.0	513.27	571.73	11.4	607.79	18.4	#N/A	#N/A	#N/A	#N/A
1	17.0	1,049.76	1,177.88	12.2	1,252.82	19.3	#N/A	#N/A	#N/A	#N/A
2	7.0	484.65	535.94	10.6	569.25	17.5	#N/A	#N/A	#N/A	#N/A
2	16.0	1,021.14	1,142.09	11.8	1,214.28	18.9	#N/A	#N/A	#N/A	#N/A
2	33.0	2,034.51	2,287.04	12.4	2,432.67	19.6	#N/A	#N/A	#N/A	#N/A
2	100.0	6,028.38	6,799.49	12.8	7,234.56	20.0	#N/A	#N/A	#N/A	#N/A
4	30.0	1,961.47	2,193.54	11.8	2,331.31	18.9	#N/A	#N/A	#N/A	#N/A
4	170.0	10,125.57	11,057.64	9.2	11,767.31	16.2	#N/A	#N/A	#N/A	#N/A
4	330.0	19,248.77	20,542.44	6.7	21,868.11	13.6	#N/A	#N/A	#N/A	#N/A
4	500.0	28,942.17	30,620.04	5.8	32,600.21	12.6	#N/A	#N/A	#N/A	#N/A
6	150.0	9,135.39	10,025.76	9.7	10,665.81	16.8	#N/A	#N/A	#N/A	#N/A
6	500.0	29,092.39	30,773.76	5.8	32,761.31	12.6	#N/A	#N/A	#N/A	#N/A
6	1,000.0	57,602.39	60,413.76	4.9	64,326.31	11.7	#N/A	#N/A	#N/A	#N/A
6	1,500.0	86,112.39	90,053.76	4.6	95,891.31	11.4	#N/A	#N/A	#N/A	#N/A
8	750.0	43,522.87	45,773.00	5.2	48,731.80	12.0	#N/A	#N/A	#N/A	#N/A
8	1,500.0	86,287.87	90,233.00	4.6	96,079.30	11.3	#N/A	#N/A	#N/A	#N/A
8	2,000.0	114,797.87	119,873.00	4.4	127,644.30	11.2	#N/A	#N/A	#N/A	#N/A
8	3,000.0	164,847.87	178,333.00	8.2	189,904.30	15.2	#N/A	#N/A	#N/A	#N/A
10	600.0	35,186.52	37,103.19	5.4	39,494.97	12.2	#N/A	#N/A	#N/A	#N/A
10	1,700.0	97,908.52	102,311.19	4.5	108,937.97	11.3	#N/A	#N/A	#N/A	#N/A
10	3,300.0	180,079.52	196,093.19	8.9	208,814.97	16.0	#N/A	#N/A	#N/A	#N/A
10	6,000.0	315,214.52	353,935.19	12.3	376,916.97	19.6	#N/A	#N/A	#N/A	#N/A

TABLE 0

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 2017		FY 2018		FY 2019		FY 2020		
Meter Size Inches	Monthly Use Mcf	Existing Rates $	Proposed Rates $	Percent of Existing %	Proposed Rates $	Percent of Proposed FY 2017 %	Proposed Rates $	Percent of Proposed of FY 2018 %	Proposed Rates $	Percent of Proposed of FY 2019 %	
	LagRate-26	LagRate-32	LagRate-32		LagRate-33		LagRate-34		LagRate-34		
5/8	0.0	13.01	13.84	6.4	14.25	3.0	#N/A	#N/A	#N/A	#N/A	0.00
5/8	0.3	33.15	35.63	7.5	37.43	5.1	#N/A	#N/A	#N/A	#N/A	0.00
5/8	0.5	46.57	50.16	7.7	52.89	5.4	#N/A	#N/A	#N/A	#N/A	0.00
5/8	0.6	53.28	57.42	7.8	60.62	5.6	#N/A	#N/A	#N/A	#N/A	(0.00)
5/8	0.7	59.99	64.69	7.8	68.35	5.7	#N/A	#N/A	#N/A	#N/A	(0.00)
5/8	0.8	66.71	71.95	7.9	76.07	5.7	#N/A	#N/A	#N/A	#N/A	0.00
5/8	1.7	127.11	137.33	8.0	145.63	6.0	#N/A	#N/A	#N/A	#N/A	(0.00)
5/8	2.7	188.98	206.27	9.1	218.98	6.2	#N/A	#N/A	#N/A	#N/A	0.00
5/8	3.3	224.74	246.68	9.8	261.98	6.2	#N/A	#N/A	#N/A	#N/A	(0.00)
5/8	11.0	683.74	765.27	11.9	813.84	6.3	#N/A	#N/A	#N/A	#N/A	0.00
1	1.7	135.47	145.84	7.7	154.59	6.0	#N/A	#N/A	#N/A	#N/A	(0.00)
1	5.0	334.44	369.68	10.5	392.78	6.2	#N/A	#N/A	#N/A	#N/A	0.00
1	8.0	513.27	571.73	11.4	607.79	6.3	#N/A	#N/A	#N/A	#N/A	0.00
1	17.0	1,049.76	1,177.88	12.2	1,252.82	6.4	#N/A	#N/A	#N/A	#N/A	0.00
2	7.0	484.65	535.94	10.6	569.25	6.2	#N/A	#N/A	#N/A	#N/A	0.00
2	16.0	1,021.14	1,142.09	11.8	1,214.28	6.3	#N/A	#N/A	#N/A	#N/A	0.00
2	33.0	2,034.51	2,287.04	12.4	2,432.67	6.4	#N/A	#N/A	#N/A	#N/A	0.00
2	100.0	6,028.38	6,799.49	12.8	7,234.56	6.4	#N/A	#N/A	#N/A	#N/A	0.00
4	30.0	1,961.47	2,193.54	11.8	2,331.31	6.3	#N/A	#N/A	#N/A	#N/A	0.00
4	170.0	10,125.57	11,057.64	9.2	11,767.31	6.4	#N/A	#N/A	#N/A	#N/A	0.00
4	330.0	19,248.77	20,542.44	6.7	21,868.11	6.5	#N/A	#N/A	#N/A	#N/A	0.00
4	500.0	28,942.17	30,620.04	5.8	32,600.21	6.5	#N/A	#N/A	#N/A	#N/A	0.00
6	150.0	9,135.39	10,025.76	9.7	10,665.81	6.4	#N/A	#N/A	#N/A	#N/A	0.00
6	500.0	29,092.39	30,773.76	5.8	32,761.31	6.5	#N/A	#N/A	#N/A	#N/A	0.00
6	1,000.0	57,602.39	60,413.76	4.9	64,326.31	6.5	#N/A	#N/A	#N/A	#N/A	0.00
6	1,500.0	86,112.39	90,053.76	4.6	95,891.31	6.5	#N/A	#N/A	#N/A	#N/A	0.00
8	750.0	43,522.87	45,773.00	5.2	48,731.80	6.5	#N/A	#N/A	#N/A	#N/A	0.00
8	1,500.0	86,287.87	90,233.00	4.6	96,079.30	6.5	#N/A	#N/A	#N/A	#N/A	0.00
8	2,000.0	114,797.87	119,873.00	4.4	127,644.30	6.5	#N/A	#N/A	#N/A	#N/A	0.00
8	3,000.0	164,847.87	178,333.00	8.2	189,904.30	6.5	#N/A	#N/A	#N/A	#N/A	0.00
10	600.0	35,186.52	37,103.19	5.4	39,494.97	6.4	#N/A	#N/A	#N/A	#N/A	0.00
10	1,700.0	97,908.52	102,311.19	4.5	108,937.97	6.5	#N/A	#N/A	#N/A	#N/A	0.00
10	3,300.0	180,079.52	196,093.19	8.9	208,814.97	6.5	#N/A	#N/A	#N/A	#N/A	0.00
10	6,000.0	315,214.52	353,935.19	12.3	376,916.97	6.5	#N/A	#N/A	#N/A	#N/A	0.00

This page uses FY 2016 billing data times COS rates.

Meter Size inches	Meter Code	Residential (a)(b) Service Charge Billings $	Residential (a)(b) Volume Charge Billings $	Commercial Service Charge Billings $	Commercial Volume Charge Billings $	Industrial Service Charge Billings $	Industrial Volume Charge Billings $	Public Utilities Service Charge Billings $	Public Utilities Volume Charge Billings $	Senior Citizens (b) Service Charge Billings $	Senior Citizens (b) Volume Charge Billings $	Housing Authority (b) Service Charge Billings $	Housing Authority (b) Volume Charge Billings $	"N" Charities (b) Service Charge Billings $	"N" Charities (b) Volume Charge Billings $	"6 Cent" Charities (b) Service Charge Billings $	"6 Cent" Charities (b) 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	34,937,193		2,418,233		45,862		3,397		1,311,848		464,985		78,685		3,254	
3/4	Z	3,435		1,583		0		0		0		0		0		0	
1	Q	319,791		379,084		37,433		4,261		347		1,802		35,821		3,557	
1-1/4	Y	0		0		0		0		0		0		0		0	
1-1/2	P	149,982		261,500		20,677		2,647		194		1,859		29,224		2,982	
2	X	169,238		534,078		40,769		7,641		0		5,297		70,016		17,803	
3	O	92,664		333,521		31,145		9,262		0		23,147		118,724		51,035	
4	W	48,798		299,154		14,770		4,886		0		21,453		254,843		89,461	
6	N	26,666		202,772		15,573		14,352		0		29,405		55,085		98,173	
8	V	10,496		63,848		0		3,766		0		23,147		12,753		18,184	
10	E	0		25,645		0		0		0		0		0		4,382	
12	T	0		0		0		0		0		0		0		0	
14	H	0		0		0		0		0		0		0		0	
		35,758,264	97,801,802	4,519,418	38,346,844	206,230	2,641,457	50,212	300,265	1,312,388	2,593,650	571,094	5,033,030	655,152	4,611,541	288,832	6,765,536

Meter Size inches	Meter Code	Hand Bill Service Charge Billings $	Hand Bill Volume Charge Billings $	Scheduled (Flat Rate) (b) Service Charge Billings $	Scheduled (Flat Rate) (b) Volume Charge Billings $	Fire Meters (b) Service Charge Billings $	Fire Meters (b) Volume Charge Billings $	City Properties (b) Service Charge Billings $	City Properties (b) Volume Charge Billings $	Municipal (Incl. Sewer Only) Service Charge Billings $	Municipal (Incl. Sewer Only) Volume Charge Billings $	Sewer Only Service Charge Billings $	Sewer Only Volume Charge Billings $	Sewer Only Ground Water Service Charge Billings $	Sewer Only Ground Water Volume Charge Billings $	Total Sewer Only Service Charge Billings $	Total Sewer Only 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	
5/8	R	1,790		173		4,356		866		17,543							
3/4	Z	0		0		0		0		104							
1	Q	2,140		0		1,130		677		16,687							
1-1/4	Y	0		0		0		0		0							
1-1/2	P	2,467		0		711		1,135		16,936		Volume				Volume	
2	X	13,632		0		3,240		3,794		88,762		charge only				charge only	
3	O	42,869		0		638		3,056		84,575							
4	W	79,714		0		3,280		7,335		67,973							
6	N	52,706		0		2,141		0		73,206							
8	V	25,532		0		0		0		41,911							
10	E	13,844		0		0		0		75,751							
12	T	0		0		0		0		9,061							
14	H	0		0		0		0		0							
		234,695	15,212,309	173	663	15,497	86,772	16,863	133,722	492,507	7,189,680	0	1,322,117	0	5,888,100	0	7,210,217

(a) Excludes Senior Citizens
(b) Excludes Water Only and Wastewater Only.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
						LagRate-13			1/2 Mo Vol Chrg @ Exst Rates		Prior Year Receipts				
	Service Charge	Volume Charge	Total	Bill Tab Factors	100% of (1) * (4)	11.5/12 of (2) * (4)	Total Billings	FY 2017 Receipts of FY 2017 Billings	Basis of Proration	Proration	Basis of Proration	Proration	FY 2017 Receipts	FY 2017 Adjusted COS	Percent Receipts of Adjusted COS
	$	$	$		$	$	$	$	$	$	$	$	$	$	%
	LagRate-37	LagRate-37		LagRate-12				84.3% * (7)	LagRate-7		LagRate-7a		(8)+(10)+(12)	LagRate-22	
Residential Excl. Sen. Cit.	35,758,264	97,801,802	133,560,066	99.21%	35,474,343	92,982,537	128,456,880	108,289,150	91,370,331	2,976,277	120,078,720	14,047,369	125,312,795	124,529,367	105.5%
Commercial	4,519,418	38,346,844	42,866,262	99.21%	4,483,534	36,457,271	40,940,805	34,513,098	33,838,907	1,102,261	38,564,342	4,511,437	40,126,796	39,866,019	113.5%
Industrial	206,230	2,641,457	2,847,687	99.21%	204,593	2,511,297	2,715,890	2,289,495	2,367,059	77,104	2,562,063	299,722	2,666,321	2,641,748	106.3%
Public Utilities	50,212	300,265	350,477	99.21%	49,814	285,469	335,283	282,644	238,797	7,779	315,950	36,961	327,383	323,891	70822.9%
Senior Citizens	1,312,388	2,593,650	3,906,038	99.23%	1,302,306	2,466,485	3,768,791	3,177,091	2,312,974	75,342	3,510,963	410,729	3,663,162	3,643,037	403.2%
Housing Authority	571,094	5,033,030	5,604,124	99.21%	566,576	4,785,163	5,351,739	4,511,516	4,425,591	144,158	5,039,011	589,487	5,245,161	5,208,528	196.9%
Charities & Schools	655,152	4,611,541	5,266,693	99.22%	650,037	4,384,890	5,034,926	4,244,443	4,445,621	144,811	4,745,569	555,159	4,944,412	4,897,709	4732.2%
Hospitals & Universities	288,832	6,765,536	7,054,368	99.22%	286,577	6,433,018	6,719,595	5,664,619	5,521,870	179,868	6,346,171	742,405	6,586,891	6,549,402	3488.3%
Hand Billed	234,695	15,212,309	15,447,005	99.22%	232,862	14,464,602	14,697,464	12,389,962	14,730,372	479,824	13,885,960	1,624,444	14,494,231	14,332,336	135.6%
Scheduled	173	663	836	99.21%	172	631	802	676	618	20	752	88	785	479	163.8%
Fire Meters	15,497	86,772	102,269	99.21%	15,374	82,499	97,873	82,507	83,966	2,735	77,974	9,122	94,364	95,480	237658.8%
City Leased	16,863	133,722	150,585	99.21%	16,730	127,136	143,866	121,279	124,707	4,062	135,662	15,870	141,212	140,274	100.7%
Municipal Service	492,507	7,189,680	7,682,187	99.21%	488,611	6,835,602	7,324,212	6,174,311	6,119,650	199,340	6,913,940	808,825	7,182,476	7,135,324	100.7%
Sewer Only	0	7,210,217	7,210,217	100.77%	0	6,962,970	6,962,970	5,869,784	2,151,616	70,086	1,206,759	141,172	6,081,043	1,244,812	488.5%
Groundwater	0	5,888,100	5,888,100	99.21%	0	5,598,122	5,598,122	4,719,217	1,698,702	55,333	2,028,227	237,271	5,011,821	2,094,104	239.3%
Subtotal	44,121,326	193,815,588	237,936,914		43,771,528	184,377,691	228,149,219	192,329,791	169,430,780	5,519,000	205,412,062	24,030,061	221,878,853	212,702,510	104.3%
Surcharge (COS)	5,310,012	0	5,310,012	100.0%	5,310,012		5,310,012	4,476,340		LagRate-22==>	4,000,000	467,939	4,944,279	5,432,822	91.0%
Total	49,431,338	193,815,588	243,246,926		49,081,540	184,377,691	233,459,231	196,806,132			209,412,062	24,498,000	226,823,132	218,135,332	104.0%

		Receipts
Current Yr Receipts:		$
84.30% of Subtotal less Municipal		186,155,481
Plus 100% of Municipal		7,324,212
Plus 84.30% of Surcharge		4,476,340
Plus 1/2 Mo Vol @ Existing Rates	LagRate-13	5,788,000
Prior Yr Receipts:		
1st Prior Year	LagRate-13	20,379,000
2nd Prior Year	LagRate-13	4,119,000
Total Receipts		228,242,033
	vs LagRate-24==>	215,125,184
		106.1%
	difference	(13,116,849)

SCENARIO: 1 NEW

		Collection System Stormwater Costs Equiv. Meters	Customer Costs: Meter Costs Equiv. Meters	Billing Costs: Sanitary Equiv. Bills	Billing Costs: Stormwater Bills	Industrial Waste Costs Equiv. Meters	Stormwater I/I Costs Equiv. Meters	Sanitary I/I Costs Equiv. Meters	Stormwater Direct Equiv. Meters	Total Cost $	Reference
		0.0000					#DIV/0!	2.0893	#DIV/0!		
5/8 Inch Meter	2017 COS Service Charge	0.0000	0.5812	3.7948		0.3536		2.0893		6.8189	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	0.6149	4.0149		0.3741		2.2105		7.2144	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	0.6149	4.0149		0.3741		2.2105		7.2144	
	Total Service Charge Rounded	0.02	0.61	4.01		0.37		2.21		7.22	LagRate-31
	Times (100%-25%) Charities Discount	0.01	0.46	3.01		0.28		1.66		5.42	LagRate-31
3/4 Inch Meter	2017 COS Service Charge	0.0000	0.8718	3.7948		0.5304		0.0000		5.1970	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	0.9224	4.0149		0.5612		0.0000		5.4985	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	0.9224	4.0149		0.5612		0.0000		5.4985	
	Total Service Charge Rounded	3.32	0.92	4.01		0.56		0.00		8.81	LagRate-31
	Times (100%-25%) Charities Discount	2.49	0.69	3.01		0.42		0.00		6.61	LagRate-31
1 Inch Meter:	2017 COS Service Charge	0.0000	1.4530	4.1743		0.8840		0.0000		6.5113	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	1.5373	4.4164		0.9353		0.0000		6.8890	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	1.5373	4.4164		0.9353		0.0000		6.8890	
	Total Service Charge Rounded	5.51	1.54	4.42		0.94		0.00		12.41	LagRate-31
	Times (100%-25%) Charities Discount	4.12	1.16	3.32		0.71		0.00		9.31	LagRate-31
1-1/4 Inch Met	2017 COS Service Charge	0.0000	2.2086	4.5538		1.3437		0.0000		8.1061	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	2.3367	4.8179		1.4216		0.0000		8.5762	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	2.3367	4.8179		1.4216		0.0000		8.5762	
	Total Service Charge Rounded	8.40	2.34	4.82		1.42		0.00		16.98	LagRate-31
	Times (100%-25%) Charities Discount	6.29	1.76	3.62		1.07		0.00		12.74	LagRate-31
1-1/2 Inch Met	2017 COS Service Charge	0.0000	2.9060	4.5538		1.7680		0.0000		9.2278	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	3.0745	4.8179		1.8705		0.0000		9.7629	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	3.0745	4.8179		1.8705		0.0000		9.7629	
	Total Service Charge Rounded	11.05	3.07	4.82		1.87		0.00		20.81	LagRate-31
	Times (100%-25%) Charities Discount	8.29	2.30	3.62		1.40		0.00		15.61	LagRate-31
2 Inch Meter:	2017 COS Service Charge	0.0000	4.6496	5.6922		2.8288		0.0000		13.1706	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	4.9193	6.0223		2.9929		0.0000		13.9345	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	4.9193	6.0223		2.9929		0.0000		13.9345	
	Total Service Charge Rounded	17.69	4.92	6.02		2.99		0.00		31.62	LagRate-31
	Times (100%-25%) Charities Discount	13.27	3.69	4.52		2.24		0.00		23.72	LagRate-31
3 Inch Meter:	2017 COS Service Charge	0.0000	8.7180	7.5896		5.3040		0.0000		21.6116	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	9.2236	8.0298		5.6116		0.0000		22.8650	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	9.2236	8.0298		5.6116		0.0000		22.8650	
	Total Service Charge Rounded	33.16	9.22	8.03		5.61		0.00		56.02	LagRate-31
	Times (100%-25%) Charities Discount	24.87	6.92	6.02		4.21		0.00		42.02	LagRate-31
4 Inch Meter:	2017 COS Service Charge	0.0000	14.5300	15.1792		8.8400		0.0000		38.5492	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	15.3727	16.0596		9.3527		0.0000		40.7850	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	15.3727	16.0596		9.3527		0.0000		40.7850	
	Total Service Charge Rounded	55.27	15.37	16.06		9.35		0.00		96.05	LagRate-31
	Times (100%-25%) Charities Discount	41.45	11.53	12.05		7.01		0.00		72.04	LagRate-31
6 Inch Meter:	2017 COS Service Charge	0.0000	29.0600	26.5636		17.6800		0.0000		73.3036	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	30.7455	28.1043		18.7054		0.0000		77.5552	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	30.7455	28.1043		18.7054		0.0000		77.5552	
	Total Service Charge Rounded	110.52	30.75	28.10		18.71		0.00		188.08	LagRate-31
	Times (100%-25%) Charities Discount	82.89	23.06	21.08		14.03		0.00		141.06	LagRate-31
8 Inch Meter:	2017 COS Service Charge	0.0000	46.4960	37.9480		28.2880		0.0000		112.7320	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	49.1928	40.1490		29.9287		0.0000		119.2705	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	49.1928	40.1490		29.9287		0.0000		119.2705	
	Total Service Charge Rounded	176.84	49.19	40.15		29.93		0.00		296.11	LagRate-31
	Times (100%-25%) Charities Discount	132.63	36.89	30.11		22.45		0.00		222.08	LagRate-31
10 Inch Meter:	2017 COS Service Charge	0.0000	66.8380	56.9220		40.6640		0.0000		164.4240	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	70.7146	60.2235		43.0225		0.0000		173.9606	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	70.7146	60.2235		43.0225		0.0000		173.9606	
	Total Service Charge Rounded	254.21	70.71	60.22		43.02		0.00		428.16	LagRate-31
	Times (100%-25%) Charities Discount	190.65	53.03	45.17		32.27		0.00		321.12	LagRate-31
12 Inch Meter:	2017 COS Service Charge	0.0000	124.9580	75.8960		76.0240		0.0000		276.8780	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	132.2056	80.2980		80.4334		0.0000		292.9370	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	132.2056	80.2980		80.4334		0.0000		292.9370	
	Total Service Charge Rounded	475.25	132.21	80.30		80.43		0.00		768.19	LagRate-31
	Times (100%-25%) Charities Discount	356.43	99.16	60.23		60.32		0.00		576.14	LagRate-31
14 Inch Meter:	2017 COS Service Charge	0.0000	130.7700	87.2804		79.5600		0.0000		297.6104	Servchg-2
	Times 105.80 lag factor	1.0580	1.0580	1.0580		1.0580		1.0580			LagRate-14
	2017 Adjusted COS Service Charge	0.0000	138.3547	92.3427		84.1745		0.0000		314.8719	
	Proration of Transition Rate Adjustment	N/A						N/A		N/A	
	Total Service Charge	0.0000	138.3547	92.3427		84.1745		0.0000		314.8719	
	Total Service Charge Rounded	(314.86)	138.35	92.34		84.17		0.00		0.00	LagRate-31
	Times (100%-25%) Charities Discount	(236.15)	103.76	69.26		63.13		0.00		0.00	LagRate-31

Rate Components of Regular Sewer Service Charges

	Collection System Stormwater Costs Equiv. Meters	Customer Costs: Meter Costs Equiv. Meters	Billing Costs: Sanitary Equiv. Bills	Billing Costs: Stormwater Equiv. Bills	Industrial Waste Costs Equiv. Meters	Stormwater I/I Costs Equiv. Meters	Sanitary I/I Costs Equiv. Meters	Warranty Costs Equiv. Service	Total Cost $	Reference	IA/GA Stormwater	Billing & Collecting Stormwater	Wastewater
FY 2017 Service Charges			**Regular Sewer Service Charges Detail**										
5/8 Inch Meter:	0.02	0.61	4.01	0.00	0.37	0.00	2.21	0.00	7.22	LagRate-40	0.02	0.00	7.20
3/4 Inch Meter:	3.32	0.92	4.01	0.00	0.56	0.00	0.00	0.00	8.81	LagRate-40	3.32	0.00	5.49
1 Inch Meter:	5.51	1.54	4.42	0.00	0.94	0.00	0.00	0.00	12.41	LagRate-40	5.51	0.00	6.90
1-1/4 Inch Meter:	8.40	2.34	4.82	0.00	1.42	0.00	0.00	0.00	16.98	LagRate-40	8.40	0.00	8.58
1-1/2 Inch Meter:	11.05	3.07	4.82	0.00	1.87	0.00	0.00	0.00	20.81	LagRate-40	11.05	0.00	9.76
2 Inch Meter:	17.69	4.92	6.02	0.00	2.99	0.00	0.00	0.00	31.62	LagRate-40	17.69	0.00	13.93
3 Inch Meter:	33.16	9.22	8.03	0.00	5.61	0.00	0.00	0.00	56.02	LagRate-40	33.16	0.00	22.86
4 Inch Meter:	55.27	15.37	16.06	0.00	9.35	0.00	0.00	0.00	96.05	LagRate-40	55.27	0.00	40.78
6 Inch Meter:	110.52	30.75	28.10	0.00	18.71	0.00	0.00	0.00	188.08	LagRate-40	110.52	0.00	77.56
8 Inch Meter:	176.84	49.19	40.15	0.00	29.93	0.00	0.00	0.00	296.11	LagRate-40	176.84	0.00	119.27
10 Inch Meter:	254.21	70.71	60.22	0.00	43.02	0.00	0.00	0.00	428.16	LagRate-40	254.21	0.00	173.95
12 Inch Meter:	475.25	132.21	80.30	0.00	80.43	0.00	0.00	0.00	768.19	LagRate-40	475.25	0.00	292.94

Rate Components of Discount Sewer Service Charges

	Collection System Stormwater Costs Equiv. Meters	Customer Costs: Meter Costs Equiv. Meters	Billing Costs: Sanitary Equiv. Bills	Billing Costs: Stormwater Equiv. Bills	Industrial Waste Costs Equiv. Meters	Stormwater I/I Costs Equiv. Meters	Sanitary I/I Costs Equiv. Meters	Warranty Costs Equiv. Service	Total Cost $	Reference	IA/GA Stormwater	Billing & Collecting Stormwater	Wastewater
FY 2017 Service Charges			**Discount Sewer Service Charges Detail**										
5/8 Inch Meter:	0.01	0.46	3.01	0.00	0.28	0.00	1.66	0.00	5.42	LagRate-40	0.01	0.00	5.41
3/4 Inch Meter:	2.49	0.69	3.01	0.00	0.42	0.00	0.00	0.00	6.61	LagRate-40	2.49	0.00	4.12
1 Inch Meter:	4.12	1.16	3.32	0.00	0.71	0.00	0.00	0.00	9.31	LagRate-40	4.12	0.00	5.19
1-1/4 Inch Meter:	6.29	1.76	3.62	0.00	1.07	0.00	0.00	0.00	12.74	LagRate-40	6.29	0.00	6.45
1-1/2 Inch Meter:	8.29	2.30	3.62	0.00	1.40	0.00	0.00	0.00	15.61	LagRate-40	8.29	0.00	7.32
2 Inch Meter:	13.27	3.69	4.52	0.00	2.24	0.00	0.00	0.00	23.72	LagRate-40	13.27	0.00	10.45
3 Inch Meter:	24.87	6.92	6.02	0.00	4.21	0.00	0.00	0.00	42.02	LagRate-40	24.87	0.00	17.15
4 Inch Meter:	41.45	11.53	12.05	0.00	7.01	0.00	0.00	0.00	72.04	LagRate-40	41.45	0.00	30.59
6 Inch Meter:	82.89	23.06	21.08	0.00	14.03	0.00	0.00	0.00	141.06	LagRate-40	82.89	0.00	58.17
8 Inch Meter:	132.63	36.89	30.11	0.00	22.45	0.00	0.00	0.00	222.08	LagRate-40	132.63	0.00	89.45
10 Inch Meter:	190.65	53.03	45.17	0.00	32.27	0.00	0.00	0.00	321.12	LagRate-40	190.65	0.00	130.47
12 Inch Meter:	356.43	99.16	60.23	0.00	60.32	0.00	0.00	0.00	576.14	LagRate-40	356.43	0.00	219.71

SCOS15_17.XLS

SWLAGRATE

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

Range	Page Number	Description
	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 2017

PROJECTED BILLABLE PARCELS **SW LagRate - 1**

	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	424,709	424,709	424,709	424,709	424,709	424,709	424,709
SW Only	10,309	10,213	10,124	10,041	9,962	9,887	9,815
Discount Non-PHA							
Water & Sewer	20,747	20,747	20,747	20,747	20,747	20,747	20,747
SW Only	29	29	29	29	29	29	29
Discount PHA							
Water & Sewer	4,212	4,212	4,212	4,212	4,212	4,212	4,212
SW Only	181	181	181	181	181	181	181
City Owned							
Water & Sewer	102	102	102	102	102	102	102
SW Only	22	22	22	22	22	22	22
Subtotal	460,311	460,215	460,126	460,043	459,964	459,889	459,817
Non-Residential							
Non-Discount							
Water & Sewer	32,095	32,095	32,095	32,095	32,095	32,095	32,095
SW Only	37,143	37,143	37,143	37,143	37,143	37,143	37,143
Discount Non-PHA							
Water & Sewer	1,933	1,933	1,933	1,933	1,933	1,933	1,933
SW Only	301	301	301	301	301	301	301
Discount PHA							
Water & Sewer	294	294	294	294	294	294	294
SW Only	1,049	1,049	1,049	1,049	1,049	1,049	1,049
City Owned							
Water & Sewer	458	458	458	458	458	458	458
SW Only	532	549	566	583	600	617	634
Subtotal	73,805	73,822	73,839	73,856	73,873	73,890	73,907

Condominiums							
Non-Discount							
Water & Sewer	1,607	1,607	1,607	1,607	1,607	1,607	1,607
SW Only	27	27	27	27	27	27	27
Discount Non-PHA							
Water & Sewer	33	33	33	33	33	33	33
SW Only	1	1	1	1	1	1	1
Discount PHA							
Water & Sewer	1	1	1	1	1	1	1
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	2	2	2	2	2	2	2
SW Only	0	0	0	0	0	0	0
Subtotal	1,671	1,671	1,671	1,671	1,671	1,671	1,671
Total Billable Parcels	535,787	535,708	535,636	535,570	535,508	535,450	535,395

PROJECTED BILLABLE ACCOUNTS **SW LagRate - 2**

	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	425,935	425,935	425,935	425,935	425,935	425,935	425,935
SW Only	10,293	10,293	10,293	10,293	10,293	10,293	10,293
Discount Non-PHA							
Water & Sewer	20,797	20,797	20,797	20,797	20,797	20,797	20,797
SW Only	29	29	29	29	29	29	29
Discount PHA							
Water & Sewer	4,345	4,345	4,345	4,345	4,345	4,345	4,345
SW Only	181	181	181	181	181	181	181
City Owned							
Water & Sewer	114	114	114	114	114	114	114
SW Only	22	22	22	22	22	22	22
Subtotal	461,716	461,716	461,716	461,716	461,716	461,716	461,716
Non-Residential							
Non-Discount							
Water & Sewer	37,764	37,764	37,764	37,764	37,764	37,764	37,764
SW Only	36,875	36,875	36,875	36,875	36,875	36,875	36,875
Discount Non-PHA							
Water & Sewer	2,747	2,747	2,747	2,747	2,747	2,747	2,747
SW Only	304	304	304	304	304	304	304
Discount PHA							
Water & Sewer	1,454	1,454	1,454	1,454	1,454	1,454	1,454
SW Only	1,049	1,049	1,049	1,049	1,049	1,049	1,049
City Owned							
Water & Sewer	778	778	778	778	778	778	778
SW Only	536	536	536	536	536	536	536
Subtotal	81,507	81,507	81,507	81,507	81,507	81,507	81,507

Condominiums							
Non-Discount							
Water & Sewer	3,525	3,525	3,525	3,525	3,525	3,525	3,525
SW Only	29	29	29	29	29	29	29
Discount Non-PHA							
Water & Sewer	487	487	487	487	487	487	487
SW Only	1	1	1	1	1	1	1
Discount PHA							
Water & Sewer	1	1	1	1	1	1	1
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	3	3	3	3	3	3	3
SW Only	0	0	0	0	0	0	0
Subtotal	4,046	4,046	4,046	4,046	4,046	4,046	4,046
Total Billable Parcels	547,269	547,269	547,269	547,269	547,269	547,269	547,269

PROJECTED BILLABLE IMPERVIOUS AREA (1000 sq ft) **SW LagRate - 3**

	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	448,928	445,944	445,944	445,944	445,944	445,944	445,944
SW Only	8,325	10,789	10,756	10,725	10,696	10,669	10,642
Discount Non-PHA							
Water & Sewer	21,836	21,784	21,784	21,784	21,784	21,784	21,784
SW Only	48	30	30	30	30	30	30
Discount PHA							
Water & Sewer	2,971	4,423	4,423	4,423	4,423	4,423	4,423
SW Only	110	190	190	190	190	190	190
City Owned							
Water & Sewer	115	107	107	107	107	107	107
SW Only	12	23	23	23	23	23	23
Subtotal	482,345	483,290	483,257	483,226	483,197	483,170	483,143
Non-Residential							
Non-Discount							
Water & Sewer	399,571	391,749	384,670	377,520	370,002	362,447	354,845
SW Only	73,234	73,675	72,496	71,292	70,011	68,715	67,402
Discount Non-PHA							
Water & Sewer	85,311	85,534	85,007	84,470	83,897	83,318	82,732
SW Only	3,766	3,671	3,660	3,648	3,635	3,622	3,609
Discount PHA							
Water & Sewer	6,423	6,771	6,771	6,771	6,771	6,771	6,771
SW Only	1,170	1,141	1,141	1,141	1,141	1,141	1,141
City Owned							
Water & Sewer	58,933	57,557	56,678	55,781	54,826	53,860	52,882
SW Only	7,903	7,763	7,782	7,801	7,820	7,839	7,858
Subtotal	636,311	627,861	618,205	608,424	598,104	587,714	577,241

Condominiums							
Non-Discount							
Water & Sewer	16,049	13,923	13,683	13,437	13,175	12,911	12,643
SW Only	262	113	106	98	91	83	75
Discount Non-PHA							
Water & Sewer	628	606	579	551	521	492	461
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
City Owned							
Water & Sewer	16	16	16	16	16	16	16
SW Only	0	0	0	0	0	0	0
Subtotal	16,983	14,685	14,409	14,129	13,830	13,527	13,221
Total Impervious Area	1,135,638	1,125,835	1,115,871	1,105,779	1,095,130	1,084,411	1,073,605

PROJECTED BILLABLE GROSS AREA (1000 sq ft) **SW LagRate - 4**

	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	904,984	896,136	896,136	896,136	896,136	896,136	896,136
SW Only	18,260	21,308	20,899	20,515	20,150	19,804	19,474
Discount Non-PHA							
Water & Sewer	40,931	43,776	43,776	43,776	43,776	43,776	43,776
SW Only	104	61	61	61	61	61	61
Discount PHA							
Water & Sewer	4,814	8,887	8,887	8,887	8,887	8,887	8,887
SW Only	207	382	382	382	382	382	382
City Owned							
Water & Sewer	192	215	215	215	215	215	215
SW Only	23	46	46	46	46	46	46
Subtotal	969,514	970,812	970,403	970,019	969,654	969,308	968,978
Non-Residential							
Non-Discount							
Water & Sewer	600,595	591,203	582,190	573,189	563,988	554,832	545,722
SW Only	195,699	194,049	190,039	186,004	181,844	177,685	173,526
Discount Non-PHA							
Water & Sewer	146,138	143,619	141,605	139,578	137,489	135,400	133,311
SW Only	5,658	6,241	6,224	6,208	6,191	6,174	6,157
Discount PHA							
Water & Sewer	12,444	13,304	13,288	13,271	13,254	13,237	13,221
SW Only	4,440	4,416	4,416	4,416	4,416	4,416	4,416
City Owned							
Water & Sewer	197,897	191,126	189,275	187,412	185,491	183,571	181,650
SW Only	51,458	50,857	51,000	51,142	51,284	51,427	51,569
Subtotal	1,214,328	1,194,815	1,178,036	1,161,220	1,143,959	1,126,743	1,109,572

Condominiums							
Non-Discount							
Water & Sewer	21,170	19,293	18,985	18,674	18,353	18,033	17,713
SW Only	462	31	14	(2)	(19)	(36)	(53)
Discount Non-PHA							
Water & Sewer	1,428	1,330	1,297	1,264	1,231	1,197	1,163
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
City Owned							
Water & Sewer	17	17	17	17	17	17	17
SW Only	0	0	0	0	0	0	0
Subtotal	23,111	20,705	20,347	19,987	19,616	19,245	18,875
Total Gross Area	2,206,954	2,186,332	2,168,786	2,151,226	2,133,229	2,115,297	2,097,425

Residential Billing & Collection charge	$	2.08	Adjusted for Discount Recovery Factor
Non Residential Billing & Collection charge	$	2.70	

Residential GA/IA charge	$11.31	Area (sq ft)	1,000
Non Residential IA charge ($/500 sq ft)	$4.461		500
Non Residential GA charge ($/500 sq ft)	$0.575	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%

Stormwater Billings (Billing & Collection)	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	10,631,338	10,631,338	10,631,338	10,631,338	10,631,338	10,631,338	10,631,338
SW Only	256,913	256,913	256,913	256,913	256,913	256,913	256,913
Discount Non-PHA							
Water & Sewer	389,320	389,320	389,320	389,320	389,320	389,320	389,320
SW Only	543	543	543	543	543	543	543
Discount PHA							
Water & Sewer	103,029	103,029	103,029	103,029	103,029	103,029	103,029
SW Only	4,292	4,292	4,292	4,292	4,292	4,292	4,292
City Owned							
Water & Sewer	2,845	2,845	2,845	2,845	2,845	2,845	2,845
SW Only	549	549	549	549	549	549	549
Subtotal	11,388,829	11,388,829	11,388,829	11,388,829	11,388,829	11,388,829	11,388,829
Non-Residential							
Non-Discount							
Water & Sewer	1,223,554	1,223,554	1,223,554	1,223,554	1,223,554	1,223,554	1,223,554
SW Only	1,194,750	1,194,750	1,194,750	1,194,750	1,194,750	1,194,750	1,194,750
Discount Non-PHA							
Water & Sewer	66,752	66,752	66,752	66,752	66,752	66,752	66,752
SW Only	7,387	7,387	7,387	7,387	7,387	7,387	7,387
Discount PHA							
Water & Sewer	44,754	44,754	44,754	44,754	44,754	44,754	44,754
SW Only	32,288	32,288	32,288	32,288	32,288	32,288	32,288
City Owned							
Water & Sewer	25,207	25,207	25,207	25,207	25,207	25,207	25,207
SW Only	17,366	17,366	17,366	17,366	17,366	17,366	17,366
Subtotal	2,612,059	2,612,059	2,612,059	2,612,059	2,612,059	2,612,059	2,612,059

Condominiums							
Non-Discount							
Water & Sewer	114,210	114,210	114,210	114,210	114,210	114,210	114,210
SW Only	940	940	940	940	940	940	940
Discount Non-PHA							
Water & Sewer	11,834	11,834	11,834	11,834	11,834	11,834	11,834
SW Only	24	24	24	24	24	24	24
Discount PHA							
Water & Sewer	31	31	31	31	31	31	31
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	97	97	97	97	97	97	97
SW Only	0	0	0	0	0	0	0
Subtotal	127,136	127,136	127,136	127,136	127,136	127,136	127,136
Subtotal Billing & Collection Stormwater Charges	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023
Non City W&S	12,584,821	12,584,821	12,584,821	12,584,821	12,584,821	12,584,821	12,584,821
Non City SW Only	1,497,137	1,497,137	1,497,137	1,497,137	1,497,137	1,497,137	1,497,137
City	46,065	46,065	46,065	46,065	46,065	46,065	46,065
Total	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023

Stormwater Billings (GA/IA)	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	57,641,505	57,641,505	57,641,505	57,641,505	57,641,505	57,641,505	57,641,505
SW Only	1,399,137	1,386,068	1,374,043	1,362,741	1,352,003	1,341,802	1,332,111
Discount Non-PHA							
Water & Sewer	2,111,837	2,111,837	2,111,837	2,111,837	2,111,837	2,111,837	2,111,837
SW Only	2,952	2,952	2,952	2,952	2,952	2,952	2,952
Discount PHA							
Water & Sewer	543,070	543,070	543,070	543,070	543,070	543,070	543,070
SW Only	23,337	23,337	23,337	23,337	23,337	23,337	23,337
City Owned							
Water & Sewer	13,843	13,843	13,843	13,843	13,843	13,843	13,843
SW Only	2,986	2,986	2,986	2,986	2,986	2,986	2,986
Subtotal	61,738,668	61,725,599	61,713,574	61,702,271	61,691,534	61,681,333	61,671,642
Non-Residential							
Non-Discount							
Water & Sewer	51,067,835	50,100,811	49,218,568	48,328,784	47,396,952	46,461,730	45,522,094
SW Only	10,541,376	10,565,803	10,384,203	10,199,711	10,005,104	9,808,935	9,611,008
Discount Non-PHA							
Water & Sewer	8,362,821	8,354,660	8,291,518	8,227,393	8,159,808	8,091,700	8,023,003
SW Only	360,941	359,396	358,283	357,150	355,949	354,736	353,510
Discount PHA							
Water & Sewer	816,429	863,097	862,884	862,669	862,448	862,227	862,006
SW Only	177,211	173,948	173,948	173,948	173,948	173,948	173,948
City Owned							
Water & Sewer	9,040,627	8,799,780	8,680,142	8,558,445	8,429,696	8,299,784	8,168,561
SW Only	1,556,243	1,532,962	1,536,970	1,540,964	1,544,957	1,548,965	1,552,959
Subtotal	81,923,482	80,750,458	79,506,516	78,249,063	76,928,863	75,602,025	74,267,090

Condominiums							
Non-Discount							
Water & Sewer	2,010,461	1,756,935	1,726,898	1,696,314	1,663,883	1,631,133	1,598,025
SW Only	34,432	12,523	11,523	10,507	9,431	8,347	7,251
Discount Non-PHA							
Water & Sewer	65,229	62,401	59,884	57,321	54,603	51,858	49,082
SW Only	1,942	1,913	1,913	1,913	1,913	1,913	1,913
Discount PHA							
Water & Sewer	733	749	749	749	749	749	749
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	1,949	1,915	1,915	1,915	1,915	1,915	1,915
SW Only	0	0	0	0	0	0	0
Subtotal	2,114,746	1,836,435	1,802,883	1,768,719	1,732,495	1,695,915	1,658,936
SubTotal GA/IA Stormwater Billings	145,776,897	144,312,492	143,022,973	141,720,054	140,352,892	138,979,273	137,597,668
Non City W&S	122,619,921	121,435,065	120,456,914	119,469,643	118,434,856	117,395,810	116,351,373
Non City SW Only	12,541,328	12,525,940	12,330,203	12,132,258	11,924,638	11,715,970	11,506,031
City	10,615,648	10,351,487	10,235,856	10,118,153	9,993,398	9,867,493	9,740,264
Total	145,776,897	144,312,492	143,022,973	141,720,054	140,352,892	138,979,273	137,597,668

SUM OF STORMWATER BILLING & COLLECTION AND GA/IA CHARGE UNDER COS RATES							
Stormwater Billings (Billing & Collection & GA/IA)	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	68,272,843	68,272,843	68,272,843	68,272,843	68,272,843	68,272,843	68,272,843
SW Only	1,656,051	1,642,981	1,630,957	1,619,654	1,608,916	1,598,715	1,589,025
Discount Non-PHA							
Water & Sewer	2,501,157	2,501,157	2,501,157	2,501,157	2,501,157	2,501,157	2,501,157
SW Only	3,495	3,495	3,495	3,495	3,495	3,495	3,495
Discount PHA							
Water & Sewer	646,099	646,099	646,099	646,099	646,099	646,099	646,099
SW Only	27,629	27,629	27,629	27,629	27,629	27,629	27,629
City Owned							
Water & Sewer	16,689	16,689	16,689	16,689	16,689	16,689	16,689
SW Only	3,535	3,535	3,535	3,535	3,535	3,535	3,535
Subtotal	73,127,497	73,114,427	73,102,403	73,091,100	73,080,362	73,070,162	73,060,471
Non-Residential							
Non-Discount							
Water & Sewer	52,291,388	51,324,365	50,442,122	49,552,337	48,620,505	47,685,283	46,745,648
SW Only	11,736,126	11,760,553	11,578,953	11,394,461	11,199,854	11,003,685	10,805,758
Discount Non-PHA							
Water & Sewer	8,429,573	8,421,412	8,358,270	8,294,145	8,226,560	8,158,452	8,089,755
SW Only	368,328	366,784	365,671	364,538	363,336	362,124	360,897
Discount PHA							
Water & Sewer	861,183	907,851	907,638	907,423	907,202	906,981	906,760
SW Only	209,499	206,236	206,236	206,236	206,236	206,236	206,236
City Owned							
Water & Sewer	9,065,834	8,824,987	8,705,349	8,583,652	8,454,904	8,324,991	8,193,768
SW Only	1,573,610	1,550,329	1,554,336	1,558,330	1,562,324	1,566,332	1,570,325
Subtotal	84,535,541	83,362,517	82,118,575	80,861,122	79,540,922	78,214,084	76,879,149

Condominiums							
Non-Discount							
Water & Sewer	2,124,671	1,871,145	1,841,108	1,810,524	1,778,093	1,745,343	1,712,235
SW Only	35,372	13,462	12,463	11,446	10,371	9,286	8,191
Discount Non-PHA							
Water & Sewer	77,064	74,235	71,718	69,155	66,437	63,692	60,916
SW Only	1,966	1,938	1,938	1,938	1,938	1,938	1,938
Discount PHA							
Water & Sewer	764	780	780	780	780	780	780
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	2,046	2,012	2,012	2,012	2,012	2,012	2,012
SW Only	0	0	0	0	0	0	0
Subtotal	2,241,882	1,963,571	1,930,019	1,895,855	1,859,631	1,823,051	1,786,072
Total Stormwater Billings	159,904,920	158,440,515	157,150,997	155,848,077	154,480,915	153,107,297	151,725,692

	2015	2016	2017	2018	2019	2020	2021
Billing & Collection Stormwater Charges							
Non-City Water & Sewer	12,584,821	12,584,821	12,584,821	12,584,821	12,584,821	12,584,821	12,584,821
Non City SW Only	1,497,137	1,497,137	1,497,137	1,497,137	1,497,137	1,497,137	1,497,137
City	46,065	46,065	46,065	46,065	46,065	46,065	46,065
Subtotal Billing & Collection Charges	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023	14,128,023
Parcel Area Stormwater Charges							
Non-City Water & Sewer	122,619,921	121,435,065	120,456,914	119,469,643	118,434,856	117,395,810	116,351,373
Non City SW Only	12,541,328	12,525,940	12,330,203	12,132,258	11,924,638	11,715,970	11,506,031
City	10,615,648	10,351,487	10,235,856	10,118,153	9,993,398	9,867,493	9,740,264
Subtotal Parcel Based Charges	145,776,897	144,312,492	143,022,973	141,720,054	140,352,892	138,979,273	137,597,668

PROPOSED RATES (ADJUSTED FOR DISCOUNT RECOVERY AND LAG FACTOR)

Residential Billing & Collection charge	$	2.20	Adjusted for Discount Recovery & Lag Factor
Non Residential Billing & Collection charge	$	2.86	

Residential GA/IA charge	$11.97
Non Residential IA charge ($/500 sq ft)	$4.720
Non Residential GA charge ($/500 sq ft)	$0.608

Note Rounded the Non Residential IA/GA charge to 3 decimal places as shown in the PWD Regulations

Stormwater Billings (Billing & Collection)	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	11,244,684	11,244,684	11,244,684	11,244,684	11,244,684	11,244,684	11,244,684
SW Only	271,735	271,735	271,735	271,735	271,735	271,735	271,735
Discount Non-PHA							
Water & Sewer	411,781	411,781	411,781	411,781	411,781	411,781	411,781
SW Only	574	574	574	574	574	574	574
Discount PHA							
Water & Sewer	108,973	108,973	108,973	108,973	108,973	108,973	108,973
SW Only	4,539	4,539	4,539	4,539	4,539	4,539	4,539
City Owned							
Water & Sewer	3,010	3,010	3,010	3,010	3,010	3,010	3,010
SW Only	581	581	581	581	581	581	581
Subtotal	12,045,876	12,045,876	12,045,876	12,045,876	12,045,876	12,045,876	12,045,876
Non-Residential							
Non-Discount							
Water & Sewer	1,296,060	1,296,060	1,296,060	1,296,060	1,296,060	1,296,060	1,296,060
SW Only	1,265,550	1,265,550	1,265,550	1,265,550	1,265,550	1,265,550	1,265,550
Discount Non-PHA							
Water & Sewer	70,708	70,708	70,708	70,708	70,708	70,708	70,708
SW Only	7,825	7,825	7,825	7,825	7,825	7,825	7,825
Discount PHA							
Water & Sewer	47,406	47,406	47,406	47,406	47,406	47,406	47,406
SW Only	34,202	34,202	34,202	34,202	34,202	34,202	34,202
City Owned							
Water & Sewer	26,701	26,701	26,701	26,701	26,701	26,701	26,701
SW Only	18,396	18,396	18,396	18,396	18,396	18,396	18,396
Subtotal Non Residential	2,766,848	2,766,848	2,766,848	2,766,848	2,766,848	2,766,848	2,766,848

Condominiums							
Non-Discount							
Water & Sewer	120,978	120,978	120,978	120,978	120,978	120,978	120,978
SW Only	995	995	995	995	995	995	995
Discount Non-PHA							
Water & Sewer	12,535	12,535	12,535	12,535	12,535	12,535	12,535
SW Only	26	26	26	26	26	26	26
Discount PHA							
Water & Sewer	33	33	33	33	33	33	33
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	103	103	103	103	103	103	103
SW Only	0	0	0	0	0	0	0
Subtotal Condominium	134,670	134,670	134,670	134,670	134,670	134,670	134,670
SubTotal Billing & Collection SW Charges (proposed)	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394
Non City W&S	13,313,158	13,313,158	13,313,158	13,313,158	13,313,158	13,313,158	13,313,158
Non City SW Only	1,585,446	1,585,446	1,585,446	1,585,446	1,585,446	1,585,446	1,585,446
City	48,790	48,790	48,790	48,790	48,790	48,790	48,790
Subtotal Billing & Collection (Proposed Rates)	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394

Stormwater Billings (GA/IA) (Proposed Rates)	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	61,005,201	61,005,201	61,005,201	61,005,201	61,005,201	61,005,201	61,005,201
SW Only	1,480,785	1,466,952	1,454,226	1,442,264	1,430,900	1,420,104	1,409,847
Discount Non-PHA							
Water & Sewer	2,235,074	2,235,074	2,235,074	2,235,074	2,235,074	2,235,074	2,235,074
SW Only	3,124	3,124	3,124	3,124	3,124	3,124	3,124
Discount PHA							
Water & Sewer	574,761	574,761	574,761	574,761	574,761	574,761	574,761
SW Only	24,699	24,699	24,699	24,699	24,699	24,699	24,699
City Owned							
Water & Sewer	14,651	14,651	14,651	14,651	14,651	14,651	14,651
SW Only	3,160	3,160	3,160	3,160	3,160	3,160	3,160
Subtotal	65,341,455	65,327,623	65,314,897	65,302,935	65,291,570	65,280,774	65,270,518
Non-Residential							
Non-Discount							
Water & Sewer	54,027,237	53,004,155	52,070,774	51,129,412	50,143,564	49,154,128	48,160,023
SW Only	11,151,592	11,177,453	10,985,346	10,790,180	10,584,313	10,376,793	10,167,413
Discount Non-PHA							
Water & Sewer	8,847,346	8,838,729	8,771,935	8,704,101	8,632,607	8,560,559	8,487,888
SW Only	381,857	380,219	379,042	377,843	376,572	375,289	373,992
Discount PHA							
Water & Sewer	863,721	913,091	912,865	912,639	912,405	912,171	911,938
SW Only	187,460	184,008	184,008	184,008	184,008	184,008	184,008
City Owned							
Water & Sewer	9,563,691	9,308,924	9,182,357	9,053,611	8,917,405	8,779,968	8,641,145
SW Only	1,646,123	1,621,496	1,625,735	1,629,959	1,634,183	1,638,422	1,642,647
Subtotal Non Residential	86,669,028	85,428,075	84,112,062	82,781,753	81,385,058	79,981,339	78,569,053

Condominiums							
Non-Discount							
Water & Sewer	2,126,991	1,858,762	1,826,985	1,794,628	1,760,317	1,725,669	1,690,641
SW Only	36,427	13,249	12,192	11,117	9,979	8,832	7,673
Discount Non-PHA							
Water & Sewer	69,007	66,015	63,352	60,641	57,765	54,860	51,924
SW Only	2,054	2,024	2,024	2,024	2,024	2,024	2,024
Discount PHA							
Water & Sewer	775	792	792	792	792	792	792
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	2,062	2,026	2,026	2,026	2,026	2,026	2,026
SW Only	0	0	0	0	0	0	0
Subtotal	2,237,316	1,942,869	1,907,371	1,871,228	1,832,904	1,794,204	1,755,080
SubTotal GA/IA Stormwater Billings	154,247,800	152,698,567	151,334,330	149,955,915	148,509,532	147,056,317	145,594,651
Non City W&S	129,750,114	128,496,580	127,461,739	126,417,249	125,322,486	124,223,216	123,118,242
Non City SW Only	13,267,999	13,251,730	13,044,662	12,835,259	12,615,620	12,394,873	12,172,781
City	11,229,687	10,950,257	10,827,929	10,703,407	10,571,426	10,438,228	10,303,629
Total	154,247,800	152,698,567	151,334,330	149,955,915	148,509,532	147,056,317	145,594,651

SUM OF STORMWATER BILLING & COLLECTION AND GA/IA CHARGE UNDER PROPOSED RATES

Stormwater Billings (Billing & Collection & GA/IA)	2015	2016	2017	2018	2019	2020	2021
Residential							
Non-Discount							
Water & Sewer	72,249,885	72,249,885	72,249,885	72,249,885	72,249,885	72,249,885	72,249,885
SW Only	1,752,520	1,738,687	1,725,961	1,713,999	1,702,635	1,691,839	1,681,583
Discount Non-PHA							
Water & Sewer	2,646,855	2,646,855	2,646,855	2,646,855	2,646,855	2,646,855	2,646,855
SW Only	3,698	3,698	3,698	3,698	3,698	3,698	3,698
Discount PHA							
Water & Sewer	683,734	683,734	683,734	683,734	683,734	683,734	683,734
SW Only	29,238	29,238	29,238	29,238	29,238	29,238	29,238
City Owned							
Water & Sewer	17,661	17,661	17,661	17,661	17,661	17,661	17,661
SW Only	3,741	3,741	3,741	3,741	3,741	3,741	3,741
Subtotal	77,387,332	77,373,499	77,360,773	77,348,811	77,337,447	77,326,651	77,316,394
Non-Residential							
Non-Discount							
Water & Sewer	55,323,297	54,300,216	53,366,834	52,425,473	51,439,624	50,450,189	49,456,084
SW Only	12,417,142	12,443,003	12,250,896	12,055,730	11,849,863	11,642,343	11,432,963
Discount Non-PHA							
Water & Sewer	8,918,054	8,909,436	8,842,642	8,774,808	8,703,314	8,631,266	8,558,595
SW Only	389,682	388,044	386,867	385,668	384,397	383,114	381,817
Discount PHA							
Water & Sewer	911,127	960,497	960,272	960,045	959,811	959,578	959,344
SW Only	221,662	218,210	218,210	218,210	218,210	218,210	218,210
City Owned							
Water & Sewer	9,590,392	9,335,625	9,209,058	9,080,312	8,944,106	8,806,669	8,667,845
SW Only	1,664,518	1,639,891	1,644,130	1,648,355	1,652,579	1,656,818	1,661,042
Subtotal	89,435,876	88,194,923	86,878,909	85,548,600	84,151,905	82,748,186	81,335,900

Condominiums							
Non-Discount							
Water & Sewer	2,247,969	1,979,740	1,947,963	1,915,606	1,881,295	1,846,647	1,811,619
SW Only	37,422	14,245	13,187	12,112	10,975	9,827	8,668
Discount Non-PHA							
Water & Sewer	81,542	78,550	75,887	73,176	70,300	67,396	64,459
SW Only	2,080	2,050	2,050	2,050	2,050	2,050	2,050
Discount PHA							
Water & Sewer	808	825	825	825	825	825	825
SW Only	0	0	0	0	0	0	0
City Owned							
Water & Sewer	2,165	2,129	2,129	2,129	2,129	2,129	2,129
SW Only	0	0	0	0	0	0	0
Subtotal	2,371,986	2,077,539	2,042,041	2,005,898	1,967,574	1,928,874	1,889,750
Total Stormwater Billings	169,195,194	167,645,961	166,281,724	164,903,309	163,456,926	162,003,711	160,542,045
	2015	2016	2017	2018	2019	2020	2021

Billing & Collection Stormwater Charges							
Non-City Water & Sewer	13,313,158	13,313,158	13,313,158	13,313,158	13,313,158	13,313,158	13,313,158
Non City SW Only	1,585,446	1,585,446	1,585,446	1,585,446	1,585,446	1,585,446	1,585,446
City	48,790	48,790	48,790	48,790	48,790	48,790	48,790
Subtotal Billing & Collection Charges	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394	14,947,394

Parcel Area Stormwater Charges							
Non-City Water & Sewer	129,750,114	128,496,580	127,461,739	126,417,249	125,322,486	124,223,216	123,118,242
Non City SW Only	13,267,999	13,251,730	13,044,662	12,835,259	12,615,620	12,394,873	12,172,781
City	11,229,687	10,950,257	10,827,929	10,703,407	10,571,426	10,438,228	10,303,629
Subtotal Parcel Based Charges	154,247,800	152,698,567	151,334,330	149,955,915	148,509,532	147,056,317	145,594,651

STORMWATER REVENUES UNDER PROPOSED RATES-TEST YEAR 2017

Collection Factors	TY-2 2015	TY-1 2016	TY 2017	
Water, Sewer	2.00%	10.00%	84.30%	1,000
SW Only	2.32%	8.70%	53.80%	
City			100.0%	

	TY-2 2015	TY-1 2016	TY 2017	Total Revenue
Residential				
Non-Discount				
Water & Sewer	1,440,006	7,214,045	60,906,653	69,560,704
SW Only	40,536	151,052	928,567	1,120,155
Discount Non-PHA				
Water & Sewer	52,755	264,289	2,231,299	2,548,343
SW Only	86	321	1,990	2,397
Discount PHA				
Water & Sewer	13,614	68,200	576,388	658,201
SW Only	676	2,540	15,730	18,946
City Owned				
Water & Sewer			17,661	17,661
SW Only			3,741	3,741
Subtotal	1,547,672	7,700,448	64,682,028	73,930,148
Non-Residential				
Non-Discount				
Water & Sewer	1,097,841	5,398,564	44,988,241	51,484,646
SW Only	280	1,054,259	6,590,982	7,645,521
Discount Non-PHA				
Water & Sewer	177,497	888,637	7,454,347	8,520,481
SW Only	8,977	33,574	208,134	250,686
Discount PHA				
Water & Sewer	17,937	94,795	809,509	922,241
SW Only	4,921	18,188	117,397	140,506
City Owned				
Water & Sewer			9,209,058	9,209,058
SW Only			1,644,130	1,644,130
Subtotal	1,307,453	7,488,018	71,021,799	79,817,270

Condominiums				
Non-Discount				
Water & Sewer	44,317	195,175	1,642,132	1,881,625
SW Only	860	1,224	7,095	9,179
Discount Non-PHA				
Water & Sewer	1,566	7,547	63,973	73,085
SW Only	48	178	1,103	1,329
Discount PHA				
Water & Sewer	16	82	695	793
SW Only	0	0	0	0
City Owned				
Water & Sewer			2,129	2,129
SW Only			0	0
Subtotal	46,807	204,206	1,717,128	1,968,141
Total Stormwater Revenues	**2,901,932**	**15,392,671**	**137,420,955**	**155,715,558**

Condominiums				
Non-Discount				
Water & Sewer	44,317	195,175	1,642,132	1,881,625
SW Only	860	1,224	7,095	9,179
Discount Non-PHA				
Water & Sewer	1,566	7,547	63,973	73,085
SW Only	48	178	1,103	1,329
Discount PHA				
Water & Sewer	16	82	695	793
SW Only	0	0	0	0
City Owned				
Water & Sewer			2,129	2,129
SW Only			0	0
Subtotal	46,807	204,206	1,717,128	1,968,141
Total Stormwater Revenues	**2,901,932**	**15,392,671**	**137,420,955**	**155,715,558**

PUBLIC HEARING ON
PROPOSED WATER AND WASTEWATER RATES
2015

WATER DEPARTMENT
PHILADELPHIA, PENNSYLVANIA

BLACK & VEATCH CALCULATIONS
SUPPORTING EXHIBITS BV-E1, BV-E2 AND
BV-E3

WCOS15_2017

DECEMBER 2015

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INDEX

INDEX TO BLACK & VEATCH CALCULATIONS SUPPORTING DECEMBER 2015 EXHIBITS BV-E1, BV-E2, AND BV-E3 FOR THE PUBLIC HEARING ON PROPOSED WATER AND WASTEWATER RATES 2015

The calculations supporting the December 2015 exhibits BV-E1, BV-E2 and BV-E3 are developed in three computer model workbook files: FINPLAN15.XLS, WCOS15_2017.XLS, and SCOS15_2017.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., Finplan2015.XLS) and the worksheet (e.g., Customer) that is printed.

The Finplan2015.XLS workbook file develops projected revenue requirements and cash flows for each utility and the combined utilities. The WCOS15_2017.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 SCOS15_2017.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:

- Exhibits Tables Reference Index – These pages provide calculation page references for the tables in Exhibits 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.

Exhibit Table	Title	Source File	Source Page
BV-E1 Combined Results			
TABLE C-1	COMBINED UTILITY: PROJECTED REVENUE AND REVENUE REQUIREMENTS	FINPLAN2015	CF Data - 3
TABLE C-2	COMBINED UTILITY: PROJECTED RATE STABILIZATION FUND AND COVENANTS METRICS PERFORMANCE	FINPLAN2015	CF Data - 3
TABLE C-3	COMBINED UTILITY: PROJECTED RECEIPTS	FINPLAN2015	Table W-1 and Table WW-1
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BV-E1 Water Results			
TABLE W-1	WATER: PROJECTED RECEIPTS UNDER EXISTING RATES	FINPLAN2015	Customer - 8, Customer - 9 and CF Data - 1
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TABLE W-3	WATER: PROJECTED CAPITAL IMPROVEMENT PROGRAM	FINPLAN2015	Capital Projects - Scen 4 - 1A and Capital Projects - Scen 4 - 1B
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TABLE W-5	WATER: SUMMARY OF EXISTING AND PROPOSED DEBT SERVICE	FINPLAN2015	DS - 1, DS - 4 and DS - 8
TABLE W-6	WATER: PROJECTED REVENUE AND REVENUE REQUIREMENTS	FINPLAN2015	CF Data - 1
TABLE W-7	WATER: ESTIMATED TEST YEAR COST OF SERVICE	FINPLAN2015	Cost of Service - 1
TABLE W-8	WATER: ALLOCATION OF TEST YEAR PLANT INVESTMENT TO FUNCTIONAL COST COMPONENTS	WCOS15	Wpltallo-2
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TABLE W-10	WATER: ALLOCATION OF TEST YEAR OPERATION AND MAINTENANCE EXPENSE	WCOS15	Womallo-16
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Exhibit Table	Title	Source File	Source Page
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TABLE WW-3	WASTEWATER: PROJECTED CAPITAL IMPROVEMENT PROGRAM	FINPLAN2015	Capital Projects - Scen 4 - 2A and Capital Projects - Scen 4 - 2B
TABLE WW-4	WASTEWATER: PROJECTED FLOW OF FUNDS - CAPITAL IMPROVEMENTS FUND	FINPLAN2015	Funds - 3
TABLE WW-5	WASTEWATER: SUMMARY OF EXISTING AND PROPOSED DEBT SERVICE	FINPLAN2015	DS - 1, DS - 4 and DS - 9
TABLE WW-6	WASTEWATER: PROJECTED REVENUE AND REVENUE REQUIREMENTS	FINPLAN2015	CF Data - 2
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TABLE WW - 14	WASTEWATER: ADJUSTED COSTS OF SERVICE (AFTER ALLOCATION OF I/I AND DISCOUNTS)	SCOS15_2017	Retcos-14 and Ratedsn-9
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Exhibit Table	Title	Source File	Source Page
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TABLE WH - 20	OPERATING EXPENSE ALLOCATED TO BUCKS COUNTY W&SA	SCOS15_2017	Somallo-44
TABLE WH - 21	OPERATING EXPENSE ALLOCATED TO CHELTENHAM TOWNSHIP	SCOS15_2017	Somallo-45
TABLE WH - 22	OPERATING EXPENSE ALLOCATED TO DELCORA	SCOS15_2017	Somallo-48
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Exhibit Table	Title	Source File	Source Page
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TABLE WH - 29	WASTEWATER WHOLESALE: SUMMARY OF ALLOCATED COST OF SERVICE FOR CONTRACT CUSTOMERS	SCOS15_2017	Retcos-11
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TABLE SW-5	CREDITS PROJECTIONS		
TABLE SW-6	STORMWATER: SMIP/GARP PROGRAM ANNUAL COST ESTIMATES	FINPLAN2015	Direct O&M - 3 (SMIP/GARP Costs)
TABLE SW-7	STORMWATER: SMIP/GARP PROGRAM AWARDED PROJECT PROJECTIONS		
TABLE SW-8	STORMWATER: SMIP/GARP PROGRAM AS-BUILT & VERIFIED PROJECT PROJECTIONS		
TABLE SW-9	STORMWATER: SMIP/GARP PROGRAM PROJECTED CREDIT IMPACT		
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TABLE SW-11	GA AND IA MANAGED CREDIT PROJECTION FACTORS		
TABLE SW-12	PROJECTED NUMBER OF BILLABLE ACCOUNTS	FINPLAN2015	Customer - 26
TABLE SW-13	SUMMARY OF STORMWATER COSTS	SCOS	Retcos-25
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Exhibit Table	Title	Source File	Source Page
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Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Description od Worksheet:
This worksheet develops the units od service dor retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

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

Range	Description	Page Number	Table
UntIndx	Index	Units-1	
EUOS	Estimated Units Od Service dor Retail Water Customers	Units-2	TABLE W-11
EWB	Equivalent Water Bills	Units-3	TABLE W-12
EWM	Equivalent Water Meters	Units-4	

Fixed Asset Listing as of date: 6/30/2015

The "Plant" worksheet contains water plant data for the water treatment plants. It was developed using the Fixed Asset Listing as of 6/30/2015.

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 6/30/2015	Plant-2	
OC2	Page 2 of OC and Net OC as of 6/30/2015	Plant-3	
OC3	Page 3 of OC and Net OC as of 6/30/2015	Plant-4	
OC4	Page 4 of OC and Net OC as of 6/30/2015	Plant-5	
WPI1	Page 1 of Water Plant Investment at 6/30/2015	Plant-6	
WPI2	Page 2 of Water Plant Investment at 6/30/2015	Plant-7	
WPIS	Water Plant Investment	Plant-8	
LCA	Calculation of Load Control Allocation	Plant-9	
APBC	Allocation of Plant to Bucks County	Plant-10	
AAPBC	Alternative Alloc. of Plant Invest. to Bucks Co.	Plant-11	
CPA	Comparison of Plant Allocations	Plant-12	
FPA	Factors for Allocation of Plant Investment to Bucks Co.	Plant-13	
ADE	Annual Depreciation Expense	Plant-14	
PFS	Plant File Summary for Wpltallo	Plant-15	
PSWCPLANT	Aqua PA Plant, Depr, and Return	Plant-16	

Input Area 1

Plant investment and O&M expense for Bucks County can be calculated three different ways:

Scenario 1 Allocates investment and O&M based the ratio of Bucks County Contract Capacity to the Baxter Plant facilities.
Large Transmission & Distribution Mains based on 24" and larger mains.
Allocates Capital Cost 7.50% for all plant.

Scenario 2 Allocates investment and O&M based on the ratio of Bucks County Contract Capacity to the total system capacity.
Large Transmission & Distribution Mains based on 24" and larger mains.
Allocates Capital Cost 7.50% for all plant.

Scenario 3 Allocates investment based on the ratio of Bucks County Contract Capacity to the total system capacity.
Allocated O&M based on the ratio of Bucks County Contract Capacity to the Baxter Plant facilities.
Large Transmission & Distribution Mains based on 36" and larger mains.
Allocates Capital Cost 7.50% for all plant.

The User must decide which scenario or combination of scenarios to use:

	USE=1 DON'T USE=0	PERCENT TO USE	2015	2016	2017	2018	2019	2020	2021	2022
Scenario 1 Baxter	1	50.0%	50%	50%	50%	40%	30%	20%	10%	0%
Scenario 2 System	1	50.0%	50%	50%	50%	60%	70%	80%	90%	100%
Scenario 3	0	0.0%	0%	0%	0%	0%	0%	0%	0%	0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Description of Worksheet:
This worksheet allocates water treatment plant investment among customers classes.

The "Wpltallo" worksheet allocates water treatment plant investment and annual depreciation to cost functions.

Range	Description	Page Number	Table
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

Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Worksheet Description: This worksheet allocates Water Operation and Maintenance Expense to Functional Cost Components

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	
ESSER	E&SS Services O&M Expense	Womallo-8	
XXXXX	PAGE NOT IN USE	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	
BCAP	Bucks County O&M Allocation Percentages	Womallo-13	
ATOM	Allocation of Total O&M Expense	Womallo-14	
BCOM	O&M Allocation to Bucks County (Scenarios)	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	

Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Description of Worksheet:
This worksheet allocates the retail cost of service to retail customer classes.

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
RetcInd	Index	Retcos-1	
UCOS	Unit Cost of Service	Retcos-2	TABLE W-15
ACOS	Allocated Cost of Service to Customer Types	Retcos-3	TABLE W-16
ADJCOS	Adjusted Cost of Service to Customer Types	Retcos-4	TABLE W-17
BCPC	Bucks County Proposed Charges	Retcos-5	
PSWCRate	Aqua PA Proposed Rates	Retcos-6	TABLE W-13

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	

Philadelphia Water Department (PWD)

Water Utility Financial Planning & Rate Design

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-18
CPRATES	Water & Wastewater Proposed Rates	LagRate-12	
WPRATES	Water Proposed Rates	LagRate-13	TABLE W-19 and TABLE W-20
BTAB	BillTab Billing Percentages	LagRate-14	
WSERVCHG	Components of Water Service Charges	LagRate-15	
WSERVCHG	Summary of Components Water Service Charges	LagRate-16	

WCOS15_17.XLS

UNITS

Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Description od Worksheet:
This worksheet develops the units od service dor retail and contract customers, treatment plants, and pumping stations. It also develops equivalent bills and meters.

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

Range	Description	Page Number	Table
UntIndx	Index	Units-1	
EUOS	Estimated Units Od Service dor Retail Water Customers	Units-2	TABLE W-11
EWB	Equivalent Water Bills	Units-3	TABLE W-12
EWM	Equivalent Water Meters	Units-4	

Rederences: Financial Planning Model - Customer

TABLE 18

ESTIMATED UNITS OF SERVICE FOR RETAIL WATER CUSTOMERS
TEST YEAR 2017

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: Capacity Factor %	(4) Total Capacity Mcf/day (2) x (3) /100	(5) Extra Capacity (a) Mcf/day (4) - (2)	(6) Maximum Hour Extra Capacity: Capacity Factor %	(7) Total Capacity Mcf/day (2) x (6) / 100	(8) Extra Capacity (b) Mcf/day (7) - (4)	(9) Customer Cost: Equiv. Meters Units-4	(10) Equiv. Bills Units-3	(11) Equiv. Services Units-4	Percent Distribution of General Service
1	Residential	3,169,700	8,680	200	17,360	8,680	360	31,250	13,890	431,503	4,928,471	409,808	90.81%
2	Senior Citizens	111,700	310	200	620	310	360	1,120	500	20,208	242,316	20,194	
3	Commercial	1,264,700	3,460	180	6,230	2,770	270	9,340	3,110	90,839	478,441	35,310	8.82%
4	Industrial	91,200	250	160	400	150	200	500	100	5,413	17,793	1,152	0.33%
5	Public Utilities	9,700	30	160	50	20	200	60	10	1,193	2,781	130	0.05%
6	Total General Service (c)	4,647,000	12,730	194	24,660	11,930	332	42,270	17,610	549,156	5,669,802	466,593	100.00%
7	Housing Authority	171,000	470	190	890	420	315	1,480	590	9,514	75,275	5,876	
	Charities & Schools												
8	Charities & Schools	199,700	550	180	990	440	270	1,490	500	21,984	55,858	2,293	
9	Hospital/University	291,200	800	180	1,440	640	235	1,880	440	11,460	20,742	244	
10	Charities and Schools	490,900	1,350	180	2,430	1,080	250	3,370	940	33,444	76,600	2,537	
11	Hand Billed	567,000	1,550	180	2,790	1,240	270	4,190	1,400	6,346	12	0	
12	Scheduled (Flat Rate)	0	0	200	0	0	360	0	0	2	24	2	
13	City Leased Properties	8,600	20	180	40	20	235	50	10	1,126	2,200	60	
14	City	237,500	650	180	1,170	520	235	1,530	360	12,908	26,511	968	
	Fire Protection												
15	Public		0		920	920		2,390	1,470				
16	Private	11,100	30		220	190		530	310	5,335	454,321	0	
17	Total Retail Customers	6,133,100	16,800	197	33,120	16,320	332	55,810	22,690	617,831	6,304,745	476,036	

(a) Capacity in excess of average daily use.
(b) Capacity in excess of maximum day.

Mcf - thousand cubic feet

(c) Includes leased City properties.

References:

Financial Plan Model - Customer

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	4,905,828	4,855,422	402	27,852	0	7,534	10,561	1,798	982	899	331	35	12	
2	Equivalent Bills	4,928,471	4,855,422	402	30,637	0	9,041	15,842	3,596	3,928	6,293	3,310	525	240	
	Senior Citizens														
3	Bills	242,304	242,243	0	37	0	12	12	0	0	0	0	0	0	
4	Equivalent Bills	242,316	242,243	0	41	0	14	18	0	0	0	0	0	0	
	Commercial														
5	Bills	413,304	336,791	169	30,841	0	12,760	17,864	6,079	4,442	3,046	1,132	144	36	
6	Equivalent Bills	478,441	336,791	169	33,925	0	15,312	26,796	12,158	17,768	21,322	11,320	2,160	720	
	Industrial														
7	Bills	12,960	6,396	0	3,038	0	1,013	1,370	596	226	214	83	24	0	
8	Equivalent Bills	17,793	6,396	0	3,342	0	1,216	2,055	1,192	904	1,498	830	360	0	
	Public Utilities														
9	Bills	1,524	474	0	359	0	128	256	166	51	64	13	0	13	
10	Equivalent Bills	2,781	474	0	395	0	154	384	332	204	448	130	0	260	
	Total Gen'l Service Bills Incl SC														
10	Bills	5,575,920	5,441,326	571	62,127	0	21,447	30,063	8,639	5,701	4,223	1,559	203	61	
11	Equivalent Bills	5,669,802	5,441,326	571	68,340	0	25,737	45,095	17,278	22,804	29,561	15,590	3,045	1,220	
	ALL OTHER THAN GENERAL SERVICE														
	Housing Authority														
12	Bills	70,752	67,984	0	781	0	95	745	438	319	284	106	0	0	
13	Equivalent Bills	75,275	67,984	0	859	0	114	1,118	876	1,276	1,988	1,060	0	0	
	Charities & Schools														
	Charities & Schools														
14	Bills	31,284	14,698	0	3,883	0	1,913	2,978	2,852	3,723	985	229	23	0	
15	Equivalent Bills	55,858	14,698	0	4,271	0	2,296	4,467	5,704	14,892	6,895	2,290	345	0	
	Hospital/University														
16	Bills	6,024	663	0	395	0	183	762	1,270	1,425	1,143	141	42	0	
17	Equivalent Bills	20,742	663	0	435	0	220	1,143	2,540	5,700	8,001	1,410	630	0	
	Hand Billed														
18	Bills	3,240	142	0	179	0	131	441	846	929	393	143	36	0	
19	Equivalent Bills	11,287	142	0	197	0	157	662	1,692	3,716	2,751	1,430	540	0	
	Scheduled (Flat Rate)														
20	Bills	24	24	0	0	0	0	0	0	0	0	0	0	0	
21	Equivalent Bills	24	24	0	0	0	0	0	0	0	0	0	0	0	
	Leased City Properties														
22	Bills	840	198	0	93	0	70	152	82	152	58	23	12	0	
23	Equivalent Bills	2,200	198	0	102	0	84	228	164	608	406	230	180	0	
	City (b)														
24	Bills	11,664	2,659	63	1,494	0	887	2,938	1,583	925	722	228	165	0	
25	Equivalent Bills	26,511	2,659	63	1,643	0	1,064	4,407	3,166	3,700	5,054	2,280	2,475	0	
	Private Fire Connections & Fire Meters														
26	Bills	89,976	1,228	161	5,578	0	1,273	17,379	3,487	19,082	30,416	9,738	1,403	228	
27	Equivalent Bills	454,321	1,228	161	6,136	0	1,528	26,069	6,974	76,328	212,912	97,380	21,045	4,560	
	Total														
28	Bills	5,789,724	5,528,922	795	74,530	0	25,999	55,458	19,197	32,256	38,224	12,167	1,884	289	
29	Equivalent Bills	6,316,020	5,528,922	795	81,983	0	31,200	83,189	38,394	129,024	267,568	121,670	28,260	5,780	

(b) Total TY bills split between meter sizes based upon actual FY 2014 data.

References: Units-3

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	408,821	404,619	34	2,321	0	628	880	150	82	75	28	3	1	
2	Equivalent Meters	431,503	404,619	51	5,803	0	3,140	7,040	2,250	2,050	3,750	2,240	345	215	
3	Equivalent Service	409,808	404,619	34	2,553	0	754	1,848	0	0	0	0	0	0	0
	Senior Citizens														
4	Meters	20,192	20,187	0	3	0	1	1	0	0	0	0	0	0	
5	Equivalent Meters	20,208	20,187	0	8	0	5	8	0	0	0	0	0	0	
6	Equivalent Service	20,194	20,187	0	3	0	1	2	0	0	0	0	0	0	0
	Commercial														
7	Meters	34,442	28,066	14	2,570	0	1,063	1,489	507	370	254	94	12	3	
8	Equivalent Meters	90,839	28,066	21	6,425	0	5,315	11,912	7,605	9,250	12,700	7,520	1,380	645	
9	Equivalent Service	35,310	28,066	14	2,827	0	1,276	3,127	0	0	0	0	0	0	0
	Industrial														
10	Meters	1,080	533	0	253	0	84	114	50	19	18	7	2	0	
11	Equivalent Meters	5,413	533	0	633	0	420	912	750	475	900	560	230	0	
12	Equivalent Service	1,152	533	0	278	0	101	239	0	0	0	0	0	0	0
	Public Utilities														
13	Meters	127	40	0	30	0	11	21	14	4	5	1	0	1	
14	Equivalent Meters	1,193	40	0	75	0	55	168	210	100	250	80	0	215	
15	Equivalent Service	130	40	0	33	0	13	44	0	0	0	0	0	0	0
	Total Gen'l Service Mtrs. Incl SC														
16	Meters	464,662	453,445	48	5,177	0	1,787	2,505	721	475	352	130	17	5	
17	Equivalent Meters	549,156	453,445	72	12,944	0	8,935	20,040	10,815	11,875	17,600	10,400	1,955	1,075	
18	Equivalent Service	466,593	453,445	48	5,695	0	2,144	5,261	0	0	0	0	0	0	
	ALL OTHER THAN GENERAL SERVICE														
	Housing Authority														
19	Meters	5,897	5,665	0	65	0	8	62	37	27	24	9	0	0	
20	Equivalent Meters	9,514	5,665	0	163	0	40	496	555	675	1,200	720	0	0	
21	Equivalent Service	5,876	5,665	0	72	0	10	130	0	0	0	0	0	0	0
	Charities & Schools														
	Charities & Schools														
22	Meters	2,607	1,225	0	324	0	159	248	238	310	82	19	2	0	
23	Equivalent Meters	21,984	1,225	0	810	0	795	1,984	3,570	7,750	4,100	1,520	230	0	
24	Equivalent Service	2,293	1,225	0	356	0	191	521	0	0	0	0	0	0	0
	Hospital/University														
25	Meters	503	55	0	33	0	15	64	106	119	95	12	4	0	
26	Equivalent Meters	11,460	55	0	83	0	75	512	1,590	2,975	4,750	960	460	0	
27	Equivalent Service	244	55	0	36	0	18	134	0	0	0	0	0	0	0
	Hand Billed														
24	Meters	271	12	0	15	0	11	37	71	77	33	12	3	0	
25	Equivalent Meters	6,346	12	0	38	0	55	296	1,065	1,925	1,650	960	345	0	
26	Equivalent Service	119	12	0	17	0	13	78	0	0	0	0	0	0	0
	Scheduled (Flat Rate)														
28	Meters	2	2	0	0	0	0	0	0	0	0	0	0	0	
29	Equivalent Meters	2	2	0	0	0	0	0	0	0	0	0	0	0	
30	Equivalent Service	2	2	0	0	0	0	0	0	0	0	0	0	0	0
	Leased City Properties														
31	Meters	72	17	0	8	0	6	13	7	13	5	2	1	0	
32	Equivalent Meters	1,126	17	0	20	0	30	104	105	325	250	160	115	0	
33	Equivalent Service	60	17	0	9	0	7	27	0	0	0	0	0	0	0

	City														
34	Meters	973	222	5	125	0	74	245	132	77	60	19	14	0	
35	Equivalent Meters	12,908	222	8	313	0	370	1,960	1,980	1,925	3,000	1,520	1,610	0	
36	Equivalent Service	968	222	5	138	0	89	515	0	0	0	0	0	0	0
	Private Fire Connections														
37	Meters	7,498	102	13	465	0	106	1,448	291	1,590	2,535	812	117	19	
38	Equivalent Meters (5/8")	266,764	102	20	1,163	0	530	11,584	4,365	39,750	126,750	64,960	13,455	4,085	
39	Equivalent Meters (6")	5,335	2	0	23	0	11	232	87	795	2,535	1,299	269	82	
	Total														
40	Meters	482,485	460,745	66	6,212	0	2,166	4,622	1,603	2,688	3,186	1,015	158	24	
41	Equivalent Meters (5/8")	879,260	460,745	100	15,534	0	10,830	36,976	24,045	67,200	159,300	81,200	18,170	5,160	

WCOS15_17.XLS

PLANT

Fixed Asset Listing as of date: 6/30/2015

The "Plant" worksheet contains water plant data for the water treatment plants. It was developed using the Fixed Asset Listing as of 6/30/2015.

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 6/30/2015	Plant-2	
OC2	Page 2 of OC and Net OC as of 6/30/2015	Plant-3	
OC3	Page 3 of OC and Net OC as of 6/30/2015	Plant-4	
OC4	Page 4 of OC and Net OC as of 6/30/2015	Plant-5	
WPI1	Page 1 of Water Plant Investment at 6/30/2015	Plant-6	
WPI2	Page 2 of Water Plant Investment at 6/30/2015	Plant-7	
WPIS	Water Plant Investment	Plant-8	
LCA	Calculation of Load Control Allocation	Plant-9	
APBC	Allocation of Plant to Bucks County	Plant-10	
AAPBC	Alternative Alloc. of Plant Invest. to Bucks Co.	Plant-11	
CPA	Comparison of Plant Allocations	Plant-12	
FPA	Factors for Allocation of Plant Investment to Bucks Co.	Plant-13	
ADE	Annual Depreciation Expense	Plant-14	
PFS	Plant File Summary for Wpltallo	Plant-15	
PSWCPLANT	Aqua PA Plant, Depr, and Return	Plant-16	

Input Area 1

Plant investment and O&M expense for Bucks County can be calculated three different ways:

Scenario 1 Allocates investment and O&M based the ratio of Bucks County Contract Capacity to the Baxter Plant facilities.
Large Transmission & Distribution Mains based on 24" and larger mains.
Allocates Capital Cost 7.50% for all plant.

Scenario 2 Allocates investment and O&M based on the ratio of Bucks County Contract Capacity to the total system capacity.
Large Transmission & Distribution Mains based on 24" and larger mains.
Allocates Capital Cost 7.50% for all plant.

Scenario 3 Allocates investment based on the ratio of Bucks County Contract Capacity to the total system capacity.
Allocated O&M based on the ratio of Bucks County Contract Capacity to the Baxter Plant facilities.
Large Transmission & Distribution Mains based on 36" and larger mains.
Allocates Capital Cost 7.50% for all plant.

The User must decide which scenario or combination of scenarios to use:

	USE=1 DON'T USE=0	PERCENT TO USE	2015	2016	2017	2018	2019	2020	2021	2022
Scenario 1 Baxter	1	50.0%	50%	50%	50%	40%	30%	20%	10%	0%
Scenario 2 System	1	50.0%	50%	50%	50%	60%	70%	80%	90%	100%
Scenario 3	0	0.0%	0%	0%	0%	0%	0%	0%	0%	0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Assets data from FY 2011 DATABASE_BV 20111206v2.xls - 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	7,595,606	x
	Total Source of Supply Plant	7,595,606	
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	x
6	Struc. & Imprvmts-Queen Lane RWPS		
6	Equip.-Queen Lane RWPS		
6	Struc. & Imprvmts-Queen Lane RWPS, Mains		
	Total Queen Lane RWPS	10,161,690	x
17	Struc. & Imprvmts-Torresdale RWPS		
17	Equip.-Torresdale RWPS		
17	Struc. & Imprvmts-Torresdale RWPS, Mains		
	Total Torresdale RWPS	5,000,651	x
	Total Raw Water Pumping Plant	19,271,380	

The values on this page were extracted from the Fixed Asset Listing for 6/30/2015. They do not include any consideration of CWIP at 6/30/2015 or any capital program additions after 6/30/2015. 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	1,818,308	x
22	Struc. & Imprvmts-Foxchase FWPS		
22	Equip.-Foxchase FWPS		
22	Struc. & Imprvmts-Foxchase FWPS, Mains		
	Total Foxchase FWPS	4,479,539	x
23	Struc. & Imprvmts-Oak Lane FWPS		
23	Equip.-Oak Lane FWPS		
	Total Oak Lane FWPS	455,226	x
11	Struc. & Imprvmts-Roxborough HS FWPS		
11	Equip.-Roxborough HS FWPS		
	Total Roxborough HS FWPS	5,920,310	x
30	Struc. & Imprvmts-West Oak Lane FWPS		
30	Equip.-West Oak Lane FWPS		
	Total West Oak Lane FWPS	676,862	x
18	Struc. & Imprvmts-Torresdale FWPS		
18	Equip.-Torresdale FWPS		
18	Struc. & Imprvmts-Torresdale FWPS, Mains		
	Total Torresdale FWPS	11,121,945	x
19	Struc. & Imprvmts-Torresdale HS FWPS		
19	Equip.-Torresdale HS FWPS		
	Total Torresdale HS FWPS	4,291,473	x
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	x
2	Struc. & Imprvmts-Belmont FWPS		
2	Equip.-Belmont FWPS		
	Total Belmont FWPS	13,628,120	x
7	Struc. & Imprvmts-Queen Lane HS FWPS		
7	Equip.-Queen Lane HS FWPS		
	Total Queen Lane HS FWPS	36,572,562	x
5	Struc. & Imprvmts-HS to Roxborough Expressway		
5	Equip.-HS to Roxborough Expressway		
	Total HS to Roxborough Expressway	398,929	x
	Total Treated Water Pumping Plant	82,931,030	

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Location (Depot)		Net Original Cost $	
HIGH PRESSURE FIRE PUMPING PLANT			**High Pressure Fire System was decommissioned.**
28	Struc. & Imprvmts-Race Street HP PS		
28	Equip.-Race Street HP PS		
28	Struc. & Imprvmts-Race Street HP PS, Mains		
	Total Race Street HP PS	0	x
29	Struc. & Imprvmts-Fairhill HP PS		
29	Equip.-Fairhill HP PS		
	Total Fairhill HP PS	7,299	x
	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	88,673,111	x
13	Struc. & Imprvmts-Lower Roxborough Filters		
13	Equip.-Lower Roxborough Filters		
	Total Lower Roxborough Filters	65,946	x
12	Struc. & Imprvmts-Upper Roxborough Filters		
12	Equip.-Upper Roxborough Filters		
	Total Upper Roxborough Filters	1,011,626	x
8	Struc. & Imprvmts-Queen Lane Filters		
8	Equip.-Queen Lane Filters		
8	Struc. & Imprvmts-Queen Lane Filters, Mains		
	Total Queen Land Filters	97,129,434	x
20	Struc. & Imprvmts-Baxter Filters		
20	Equip.-Baxter Filters		
	Total Baxter Filters	158,421,301	x
	Total Water Purification and Treatment Plant	345,301,418	
TRANSMISSION & DISTRIBUTION PLANT			
1,000	Struc. & Imprvmts-Mains	702,723,168	x
24	Struc. & Imprvmts-Oak Lane Reservoir		
24	Equip.-Oak Lane Reservoir		
	Total Oak Lane Reservoir	8,283,497	x
27	Struc. & Imprvmts-East Park Reservoir		
27	Equip.-East Park Reservoir		
	Total East Park Reservoir	16,134,857	x
80	Struc. & Imprvmts-Somerton Tanks		
80	Equip.-Somerton Tanks		
	Total Somerton Tanks	4,474,880	x
	Total Transmission & Distribution Plant	731,616,403	

The values on this page were extracted from the Fixed Asset Listing for 6/30/2015. They do not include any consideration of CWIP at 6/30/2015 or any capital program additions after 6/30/2015. 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)	205,918,769	x
31	Struc. & Imprvmts-Load Control Center		
31	Equip.-Load Control Center		
	Total Load Control Center	4,525,980	x
32	Struc. & Imprvmts-Distribution		
32	Equip.-Distribution		
	Total Distribution	20,975,581	x
33	Struc. & Imprvmts-Automotive Garage		
33	Equip.-Automotive Garage		
	Total Automotive Garage	5,180,248	x
34	Struc. & Imprvmts-ARA Towers		
34	Equip.-ARA Towers		
	Total ARA Towers	8,206,580	x
35	Struc. & Imprvmts-Design		
35	Equip.-Design		
	Total Design Related	2,640,237	x
36	Struc. & Imprvmts-Testing Laboratory		
36	Equip.-Testing Laboratory		
	Total Testing Laboratory	0	x
40	Struc. & Imprvmts-Meter Shop		
40	Equip.-Meter Shop		
	Total Meter Shop	2,220,701	x
45	Struc. & Imprvmts-Building Maintenance		
45	Equip.-Building Maintenance		
	Total Building Maintenance	5,152,811	x
47	Struc. & Imprvmts-Central Stores		
47	Equip.-Central Stores		
	Total Central Stores	509,870	x
49	Struc. & Imprvmts-IBM Unit 29th & Cambia		
49	Equip.-IBM Unit 29th & Cambia		
	Total IBM Unit 29th & Cambil	529,038	x
42	Struc. & Imprvmts-Auto Repair Facility		
42	Equip.-Auto Repair Facility		
	Total Auto Repair Facility	991,083	x
43	Struc. & Imprvmts-Centralized Laboratory		
43	Equip.-Centralized Laboratory		
	Total Centralized Laboratory	20,756,186	x
44	Struc. & Imprvmts-Repair Shop		
44	Equip.-Repair Shop		
	Total Repair Shop	563,016	x
	Total Administrative & General Plant	275,529,863	Excludes Depot 35
Total Water and Administrative & General Plant		1,464,893,236	Comparable total from SCOS file 1,464,893,236 Difference = 0
			0

(a) Consists of other costs that cannot be assigned to other depots, such as fringe benefits, gas mains, general engineering, etc.

Reference: A. Fixed Asset Listing
B. Pages OC1, OC2, OC3 and OC4

Line No.	Description	(1) Depot No. $ Ref. A	(2) Land $ Ref: ???	(3) Not Used $	(4) Not Used $	(5) Total Building & Related $ Ref. B	(6) Total $ (2) + (5)	
	Source of Supply:							
1	Fairmount Water Works (1)	39	150,000			7,595,606	7,745,606	
2	Manayunk Canal	81	50,000				50,000	
3	Subtotal		200,000			7,595,606	7,795,606	
	Raw Water							
4	Belmont	1	12,200			4,109,039	4,121,239	
5	Queen Lane	6	19,239			10,161,690	10,180,929	
6	Torresdale	17				5,000,651	5,000,651	
7	Torresdale Intake Conduit						0	
8	Torresdale Raw Water Basin						0	
9								
10	Subtotal		31,439			19,271,380	19,302,819	
	Treated Water							
11	East Park	26	3,000			1,818,308	1,821,308	
12	Foxchase	22	5,000			4,479,539	4,484,539	
13	Oak Lane	23				455,226	455,226	
14	Roxborough High Service	11				5,920,310	5,920,310	
15	West Oak Lane	30	16,614			676,862	693,476	
16	Torresdale Low Service (BOX 1)	18				8,354,513	8,354,513	
17	Torresdale High Service (BOX 1)	19				7,058,905	7,058,905	
18	Lardner's Point	25	45,000			3,567,758	3,612,758	
19	Belmont High Service	2				13,628,120	13,628,120	
20	Queen Lane High Service	7				36,572,562	36,572,562	
21	Roxborough Exp. High Service	5				398,929	398,929	
22	Chestnut Hill	14	1,000				1,000	
23	Subtotal		70,614			82,931,030	83,001,644	
	High Pressure Fire							
24	Race Street	28	0			0	0	**High Pressure Fire System was decommissioned.**
25	Fairhill	29	0			7,299	7,299	**High Pressure Fire System was decommissioned.**
26	Subtotal		0			7,299	7,299	
	Purification & Treatment							
27	Belmont Filters	3	273,443			88,673,111	88,946,554	
28	Lower Roxborough Filters	13	2,500			65,946	68,446	
29	Upper Roxborough Filters	12	63,000			1,011,626	1,074,626	
30	Queen Lane Filters	8	677,180			97,129,434	97,806,614	
31	Torresdale Filters/Baxter Filters	20	309,000			158,421,301	158,730,301	
32	Belmont Control Center	48					0	
33	Subtotal		1,325,123			345,301,418	346,626,541	

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)	11,121,945	Plant-3	160	Plant-9
Depot 19 (High Service)	4,291,473	Plant-3	53	Plant-9
Total	15,413,418		213	

Proration of Depot 18 investment to low and high service:

Low Service	$11,121,945*(160/213)= $	8,354,513
High Service	$11,121,945*(53/213)= $	2,767,432

Total Torresdale Investment Split Between Low and High Service:

	Depot 18 $	Depot 19 $	Total $
Low Service	8,354,513		8,354,513
High Service	2,767,432	4,291,473	7,058,905
Total	11,121,945	4,291,473	15,413,418

Reference: A. Fixed Asset Listing
B. Pages OC1, OC2, OC3 and OC4

Line No.	Description	(1) Depot No. $ Ref. A	(2) Land $ Ref: ????????	(3) Not Used $	(4) Not Used $	(5) Total Building & Related $ Ref. B	(6) Total $ (2) + (5)
	Transmission & Distribution - Mains						
34	Mains-Total					702,284,544	702,284,544
	Transmission & Distribution - Other						
35	Oak Lane Reservoir	24	64,776			8,283,497	8,348,273
36	East Park Reservoir	27	100,000			16,134,857	16,234,857
37	Somerton Tanks	80	17,000			4,474,880	4,491,880
38	Deepwell Transfer (2)					7,655	7,655
39	Roxborough Tanks (2)					1,382	1,382
40	Filtered Water Storage (2)					39,587	39,587
41	George Hill Reservoir (2)					390,000	390,000
42	Meters (3)					75,015,097	75,015,097
43	Hydrants					9,200,000	9,200,000
44	Subtotal		181,776			113,546,956	113,728,732
	Administration & General (BOX 2)						
45	Undetermined Location	0				102,959,384	102,959,384
46	Load Control Center	31				4,525,980	4,525,980
47	Distribution	32	65,470			20,975,581	21,041,051
48	Logan Street Garage	33	25,800			2,227,507	2,253,307
49	MSB 11th Floor ARA Towers	34				4,103,290	4,103,290
50	Design Branch	35				1,478,533	1,478,533
51	Testing Laboratory	36				0	0
52	Research & Development	37				0	0
53	Survey & Construction	38				0	0
54	Meter Shop	40				1,110,350	1,110,350
55	Customer Service	41				0	0
56	Centralized Laboratory	43				10,378,093	10,378,093
57	Plant Maintenance/Repair Shop	44				213,946	213,946
58	Building Maintenance	45				4,895,170	4,895,170
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			153,763,900	153,968,525
63	TOTAL		2,013,577			1,424,702,133	1,426,715,710

Notes:
(1) Land valued at $ 150,000 , but excluded from previous study (PN 13321.300). Assume land is to be included per JRM 6/30/92.
(2) Currently included in Depot 0 - Water T&D Other (1/19/2008)..
(3) Meters and radios assets obtained from Meters and other improvements.xls file provided by PWD (1/19/2008)..

BOX 2 - SPLIT OF A&G PLANT BETWEEN WATER AND SEWER

		(1) Land $ Ref: Prior Study	(2) Total Building & Related $ Ref. B	(3) Percent Water $ WG-1.3	(4) Water Allocated Land $ (1)*(3)	(5) Water - Total Building & Related $ (2)*(3)	(6) Sewer - Total Building & Related $ (1)+(2)-(4)-(5)
Admin. & General							
Undetermined Location	0		205,918,769	50.00%	0	102,959,384	102,959,385
Load Control Cntr	31		4,525,980	100.00%	0	4,525,980	(0)
Distribution	32	65,470	20,975,581	100.00%	65,470	20,975,581	0
Logan Street Garage	33	60,000	5,180,248	43.00%	25,800	2,227,507	2,986,941
MSB 11th Fl ARA Twr (6)	34		8,206,580	50.00%	0	4,103,290	4,103,290
Design Branch	35		2,640,237	56.00%	0	1,478,533	1,161,704
Testing Laboratory	36		0	38.00%	0	0	0
Research & Development	37			38.00%	0	0	0
Survey & Construction	38			56.00%	0	0	0
Meter Shop	40		2,220,701	50.00%	0	1,110,350	1,110,351
Customer Service	41			50.00%	0	0	0
Centralized Laboratory	43		20,756,186	50.00%	0	10,378,093	10,378,093
Plant Maint/Repair Shop	44		563,016	38.00%	0	213,946	349,070
Building Maintenance	45		5,152,811	95.00%	0	4,895,170	257,641
Central Stores	47		509,870	50.00%	0	254,935	254,935
IBM Unit	49		529,038	50.00%	0	264,519	264,519
N.E. Corner Fox & Rbrts	42	298,303	991,083	38.00%	113,355	376,612	799,419
		423,773	278,170,100		204,625	153,763,900	124,625,348

TOTAL A&G ($423,773 + $278,170,100) 278,593,873

TOTAL A&G ALLOCATED TO WATER 153,968,525

TOTAL A&G ALLOCATED TO SEWER ($278,593,873 - $153,968,525) 124,625,348

Reference: C. Unknown source. Same data as used in 1989 study (PN 13321.300).
E. WG-3A

Line No.	Description	(1) Land	(2) Buildings, Improvements & Equipment	(3) Total Plant Investment @6/30/2015	(4) Allocated Load Control	(5) Estimated Capitalized Interest(2)	(6) Plant Additions	(7) Total Plant @6/30/2015
		$	$	$	$	$	$	$
		Plant-6	Plant-6	(1)+(2)	Plant-9		Ref. E	
	Source of Supply:							
1	Fairmount Water Works (1)	150,000	7,595,606	7,745,606				7,745,606
2	Manayunk Canal (1)	50,000	0	50,000				50,000
3	Total	200,000	7,595,606	7,795,606				7,795,606
	Power & Pumping:							
	Raw Water							
4	Belmont	12,200	4,109,039	4,121,239				4,121,239
5	Queen Lane	19,239	10,161,690	10,180,929				10,180,929
6	Torresdale	0	5,000,651	5,000,651				5,000,651
7	Torresdale Intake Conduit	0	0	0				0
8	Torresdale Raw Water Basin	0	0	0				0
9	Total	31,439	19,271,380	19,302,819				19,302,819
	Treated Water							
10	East Park	3,000	1,818,308	1,821,308	176,300			1,997,608
11	Foxchase	5,000	4,479,539	4,484,539	55,711			4,540,250
12	Oak Lane	0	455,226	455,226	123,410			578,636
13	Roxborough High Service	0	5,920,310	5,920,310	105,780			6,026,090
14	West Oak Lane	16,614	676,862	693,476	61,705			755,181
15	Torresdale Low Service	0	8,354,513	8,354,513	564,161			8,918,674
16	Torresdale High Service	0	7,058,905	7,058,905	186,878			7,245,783
17	Lardner's Point	45,000	3,567,758	3,612,758	705,201			4,317,959
18	Belmont High Service	0	13,628,120	13,628,120	111,069			13,739,189
19	Queen Lane High Service	0	36,572,562	36,572,562	84,624			36,657,186
20	Roxborough Exp. High Service	0	398,929	398,929	88,150			487,079
21	Chestnut Hill	1,000	0	1,000				1,000
22	Total	70,614	82,931,030	83,001,644	2,262,990			85,264,634
	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	88,673,111	88,946,554				88,946,554
27	Lower Roxborough Filters	2,500	65,946	68,446				68,446
28	Upper Roxborough Filters	63,000	1,011,626	1,074,626				1,074,626
29	Queen Lane Filters	677,180	97,129,434	97,806,614				97,806,614
30	Torresdale Filters	309,000	158,421,301	158,730,301				158,730,301
31	Belmont Control Center	0	0	0				0
32	Total	1,325,123	345,301,418	346,626,541				346,626,541
	Transmission & Distribution - Mains							
33	Mains-Total	0	702,284,544	702,284,544	2,262,990			704,547,534
	Transmission & Distribution - Other							
34	Oak Lane Reservoir	64,776	8,283,497	8,348,273				8,348,273
35	East Park Reservoir	100,000	16,134,857	16,234,857				16,234,857
36	Somerton Tanks	17,000	4,474,880	4,491,880				4,491,880
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	75,015,097	75,015,097				75,015,097
42	Fire Hydrants	0	9,200,000	9,200,000				9,200,000
43	Total	181,776	113,546,956	113,728,732				113,728,732
44	Load Control Center		4,525,980	4,525,980	(4,525,980)			0
45	Administration & General	204,625	149,237,920	149,442,545				149,442,545
46	TOTAL	2,013,577	1,424,702,133	1,426,715,710	0			1,426,715,710
	Check with Plant-7	2,013,577	1,424,702,133	1,426,715,710				1,426,715,710
								(1) through (6)

(1) 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.
(2) Represents capitalized interest not included in Fixed Assets Listing prior to 1981.

Reference: A. FN-12.3

	(1) Capacity Ref. A	(2) % of Capacity
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%

ALLOCATION OF LOAD CONTROL INVESTMENT:	Amount $	% Load Control
TREATMENT:		
Torresdale Treatment Plant L.S.	564,161	12.5%
Torresdale Treatment Plant H.S.	186,878	4.1%
Queen Lane Treatment Plant H.S.	84,624	1.9%
Belmont Treatment Plant H.S.	111,069	2.5%
Lardners Point	705,201	15.6%
BOOSTER PUMPING:		
East Park	176,300	3.9%
Fox Chase	55,711	1.2%
Oak Lane	123,410	2.7%
Roxborough H.S.	105,780	2.3%
West Oak Lane	61,705	1.4%
Roxborough Exp. H.S.	88,150	1.9%
Total Pumping	2,262,990	50.0%
Transmission & Distribution	2,262,990	50.0%
Total Load Control Investment (1) WPIS.	4,525,980	100.0%

(1) 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.

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%

Water Plant Investment
Allocation of Water Plant Investment to Functional Cost Component
(Contract Method Allocation - Base Scenario 1)

Line No.		Estimated Test Period Plant Investment $ Plant-8	Bucks County Direct $ Plant-8 Plant-13	Return on Plant Invest. @ 7.50% $	Annual Depreciation Expense $ Plant-11
	Supply and Treatment				
	Raw Water Power & Pumping				
1	Land	31,439		0	
2	Buildings & Equipment	19,271,380	0 (b)	0	0
	Treatment				
	Purification				
3	Land	1,325,123	0 (b)	0	
4	Buildings & Equipment	345,301,418	0 (b)	0	0
	Treated Water Power & Pumping				
5	Land	45,000		0	
6	Buildings & Equipment	71,320,870	0 (b)	0	0
7	Total Supply and Treatment	437,295,230	0	0	0
	Distribution				
	Booster Pumping				
8	Land	25,614		0	
9	Buildings & Equipment	13,873,150		0	0
	Filtered Water Storage				
10	Land	181,776		0	
11	Buildings & Equipment	29,331,859		0	0
	High Pressure Fire System				
12	Land	0			
13	Buildings & Equipment	7,299			
	Transmission & Distribution Mains				
14	Small Mains (Less than 24")	515,410,602			
15	Large Mains (24" & Over)	189,136,932	0 (c)	0	0
16	Fire Hydrants	9,200,000			
17	Meters	75,015,097			
18	Total Distribution	832,182,329	0	0	0
	Administrative and General (a)				
19	Land	204,625	0	0	
20	Buildings & Equipment	149,237,920	0	0	0
21	Total Administrative and General	149,442,545	0	0	0
22	TOTAL INVESTMENT	1,418,920,105	0	0	0
	CHECK Plant-8	1,418,920,105			

Excludes Fairmount Water Works & Manayunk Canal

(a) Administrative and General allocated based on subtotals Lines 7 & 18.
(b) Allocable property assigned on the basis of the ratio of Bucks County Contract Capacity to the various Baxter Plant facilities as follows:
Raw water Pumping - $5,000,651 x 0mgd/480mgd.
Purification - ($309,000 + $158,421,301) x 0.0mgd/320.0mgd.
Treated Water Pumping - $8,918,673.8 x 0.0mgd/160.0mgd.
(c) Direct cost of 48" Bucks County supply main.

Water Plant Investment
Allocation of Water Plant Investment to Functional Cost Component
(Total System Allocation - Scenario 2)

Line No.	Description	Est. Test Yr. Plant Investment $ Plant-8	Bucks County Direct $ Plant-13	Return on Plant Invest. @ 7.50% $	Annual Depr. Expense $ Plant-11
	Supply and Treatment				
	Raw Water Power & Pumping				
1	Land	31,439	0 (b)	0	
2	Buildings & Equipment	19,271,380	0 (b)	0	0
	Treatment				
	Purification				
3	Land	1,325,123	0 (c)	0	
4	Buildings & Equipment	345,301,418	0 (c)	0	0
	Treated Water Power & Pumping				
5	Land	45,000	0 (c)	0	
6	Buildings & Equipment	71,320,870	0 (c)	0	0
7	Total Supply and Treatment	437,295,230	0	0	0
	Distribution				
	Booster Pumping				
8	Land	25,614	0 (c)	0	
9	Buildings & Equipment	13,873,150	0 (c)	0	0
	Filtered Water Storage				
10	Land	181,776	0 (c)	0	
11	Buildings & Equipment	29,331,859	0 (c)	0	0
	High Pressure Fire System				
12	Land	0			
13	Buildings & Equipment	7,299			
	Transmission & Distribution Mains				
14	Small Mains (Less than 24")	515,410,602			
15	Large Mains (24" & Over)	189,136,932	0 (c)	0	0
16	Fire Hydrants	9,200,000			
17	Meters	75,015,097			
18	Total Distribution	832,182,329	0	0	0
	Administrative and General(a)				
19	Land	204,625	0	0	
20	Buildings & Equipment	149,237,920	0	0	0
21	Total Administrative and General	149,442,545	0	0	0
22	TOTAL INVESTMENT	1,418,920,105	0	0	0
	CHECK Plant-8	1,418,920,105			

Excludes Fairmount Water Works & Manayunk Canal

(a) Administrative and General allocated based on subtotals of Lines 7 & 18.
(b) Allocable property assigned on the basis of the ratio of Bucks County Contract Capacity to the total system raw water pumping capacity (0.0 mgd / 827.0 mgd).
(c) Allocable property assigned on the basis of the ratio of Bucks County Contract Capacity to the total system treatment capacity (0.0 mgd / 546.0 mgd).

Water Plant Investment
Allocation of Water Plant Investment to Functional Cost Component
(Total System Allocation - Scenario 3)

Line No.		Estimated Test Period Plant Investment $ Plant-8	Bucks County Direct $ Plant-13	Return on Plant Invest. @ 7.50% $ Plant-10	Annual Depreciation Expense $	Annual Depreciation Rate $ Plant-14
	Supply and Treatment					
	Raw Water Power & Pumping					
1	Land	31,439	0 (b)	0		
2	Buildings & Equipment	19,271,380	0 (b)	0	0	2.06%
	Treatment					
	Purification					
3	Land	1,325,123	0 (c)	0		
4	Buildings & Equipment	345,301,418	0 (c)	0	0	2.27%
	Treated Water Power & Pumping					
5	Land	45,000	0 (c)	0		
6	Buildings & Equipment	71,320,870	0 (c)	0	0	2.00%
7	Total Supply and Treatment	437,295,230	0	0	0	
	Distribution					
	Booster Pumping					
8	Land	25,614	0 (c)	0		
9	Buildings & Equipment	13,873,150	0 (c)	0	0	1.91%
	Filtered Water Storage					
10	Land	181,776	0 (c)	0		
11	Buildings & Equipment	29,331,859	0 (c)	0	0	3.68%
	High Pressure Fire System					
12	Land	0				
13	Buildings & Equipment	7,299				
	Transmission & Distribution Mains					
14	Small Mains (Less than 36")	573,281,618				
15	Large Mains (36" & Over)	131,265,916	0 (c)	0	0	1.85%
16	Fire Hydrants	9,200,000				
17	Meters	75,015,097				
18	Total Distribution	832,182,329	0	0	0	
	Administrative and General(a)					
19	Land	204,625	0	0		
20	Buildings & Equipment	149,237,920	0	0	0	2.74%
21	Total Administrative and General	149,442,545	0	0	0	
22	TOTAL INVESTMENT	1,418,920,105	0	0	0	0.00%
	Check with Plant-8	1,418,920,105				

Excludes Fairmount Water Works & Manayunk Canal

(a) Administrative and General allocated based on subtotals of Lines 7 & 18.
(b) Allocable property assigned on the basis of the ratio of Bucks County Contract Capacity to the total system raw water pumping capacity (0.0 mgd / 827.0 mgd).
(c) Allocable property assigned on the basis of the ratio of Bucks County Contract Capacity to the total system treatment capacity (0.0 mgd / 546.0 mgd).

References: B. (Plant-10) Percent split of water main investment between diff. size mains.

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				Scenario 1		Scenario 2		Scenario 3		Bucks County				Aqua PA			
Line No.	Description	Total Investment $	Baxter Only Plant Investment $	Allocated Investment to Bucks County $	Cap. Cost to Bucks County $	Allocated Investment to Bucks County $	Cap. Cost to Bucks County $	Allocated Investment to Bucks County $	Cap. Cost to Bucks County $	Allocated Investment to Bucks County $	Cap. Cost to Bucks County $	Return on Plant Investment @ 7.50% $	Annual Depr. Expense $	Allocated Investment to Aqua PA $	Cap. Cost to Aqua PA $	Return on Plant Investment @ 7.50% $	Annual Depr. Expense $
	Supply and Treatment	Plant-8&Ref B	Plant-8	Plant-10	Plant-10	Plant-10	Plant-10	Plant-11	Plant-11					Plant-16		Plant-16	Plant-16
	Raw Water Power & Pumping																
1	Land	31,439			0	0	0	0	0	0	0	0	0	361	27	27	0
2	Buildings & Equipment	19,271,380	5,000,651	0	0	0	0	0	0	0	0	0	0	221,376	21,162	16,603	4,559
	Treatment																
	Purification																
3	Land	1,325,123	309,000	0	0	0	0	0	0	0	0	0	0	23,056	1,729	1,729	0
4	Buildings & Equipment	345,301,418	158,421,301	0	0	0	0	0	0	0	0	0	0	6,007,992	587,187	450,599	136,588
	Treated Water Power & Pumping																
5	Land	45,000				0	0	0	0	0	0	0	0	783	59	59	0
6	Buildings & Equipment	71,320,870	8,918,674	0	0	0	0	0	0	0	0	0	0	1,240,931	117,889	93,070	24,819
7	Total Supply and Treatment	437,295,230	172,649,626	0	0	0	0	0	0	0	0	0	0	7,494,499	728,053	562,087	165,966
	Distribution																
	Booster Pumping																
8	Land	25,614			0	0	0	0	0	0	0	0	0	379	28	28	0
9	Buildings & Equipment	13,873,150			0	0	0	0	0	0	0	0	0	205,352	19,324	15,401	3,923
	Filtered Water Storage																
10	Land	181,776			0	0	0	0	0	0	0	0	0	3,163	237	237	0
11	Buildings & Equipment	29,331,859			0	0	0	0	0	0	0	0	0	510,353	57,053	38,276	18,777
	High Pressure Fire System																
12	Land	0			0		0		0	0	0	0	0	0	0	0	0
13	Buildings & Equipment	7,299			0		0		0	0	0	0	0	0	0	0	0
	Transmission & Distribution Mains																
14	Small Mains (Less than 24")	515,410,602			0		0		0	0	0	0	0	0	0	0	0
15	Large Mains (24" & Over) (b)	189,136,932	0	0	0	0	0	0	0	0	0	0	0	3,290,844	307,735	246,813	60,922
16	Fire Hydrants	9,200,000			0		0		0			0	0	0	0	0	0
17	Meters	75,015,097			0		0		0			0	0	0	0	0	0
18	Total Distribution	832,182,329	0	0	0	0	0	0	0	0	0	0	0	4,010,091	384,377	300,755	83,622
	Administrative and General (a)																
19	Land	204,625	27,829	0	0	0	0	0	0	0	0	0	0	1,854	139	139	0
20	Buildings & Equipment	149,237,920	20,296,437	0	0	0	0	0	0	0	0	0	0	1,352,463	138,492	101,435	37,057
21	Total Administrative and General	149,442,545	20,324,266	0	0	0	0	0	0	0	0	0	0	1,354,317	138,631	101,574	37,057
22	TOTAL INVESTMENT	1,418,920,105	192,973,892	0	0	0	0	0	0	0	0	0	0	12,858,907	1,251,061	964,416	286,645

(a) Administrative and General allocated based on subtotals of Lines 7 & 18.
(b) Scenario 3 includes large mains cost based on 36" and larger mains.

References: A. Series 1998 Bonds OS

Line No.	Description	Total Capacity of Facility mgd Ref. A	Bucks County Contract Capacity mgd	Aqua PA Contract Capacity mgd	Bucks County Contract Capacity %	Aqua PA Contract Capacity %
	Source of Supply:					
1	Fairmount Water Works					
2	Manayunk Canal					
3	Total	0.00	0.00			
	Power & Pumping:					
	Raw Water					
4	Belmont	140.00	0.00			
5	Queen Lane	207.00	0.00			
6	Torresdale/Baxter	480.00	0.00			
7	Torresdale Intake Conduit		0.00			
8	Torresdale Raw Water Basin		0.00			
9	Total	827.00	0.00	9.50	0.00%	1.15%
		x				
	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	0.00	9.50	0.00%	1.48%
	High Pressure Fire					
22	Race Street					
23	Fairhill					
24	Total	0.00	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	0.00	9.50	0.00%	1.74%
		x				
	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	0.00	9.50	0.00%	2.03%
44	Load Control Center		0.00	9.50		
45	Administration & General		0.00	9.50		
46	TOTAL					

Line No.	Description	(1) Total Plant Investment $ Plant-8	(2) Land $ Plant-8	(3) Depreciable Plant $ (1)-(2)	(4) Depr. Rate (b)	(5) Annual Depr. Expense $ (3)*(4)	(6) Total Investment Allocable to B.C. $ Col. (1)	(7) Land $ Col. (2)	(8) Depreciable Plant $ (6)-(7)	(9) Depr. Rate % Col. (4)	(10) Weighted Average Rate	(11) Plant	(12) Weighted Average Rate
	Source of Supply:												
1	Fairmount Water Works (a)	7,745,606	150,000	7,595,606	0.025000	189,890	7,745,606	150,000	7,595,606	2.5%			
2	Manayunk Canal (a)	50,000	50,000	0	0.025000	0	50,000	50,000	0	2.5%			
3	Total	7,795,606	200,000	7,595,606	0.025000	189,890	7,795,606	0	7,595,606				
	Power & Pumping:												
	Raw Water												
4	Belmont	4,121,239	12,200	4,109,039	0.019468	79,995	4,121,239	12,200	4,109,039	1.95%	0.42%		
5	Queen Lane	10,180,929	19,239	10,161,690	0.019579	198,956	10,180,929	19,239	10,161,690	1.96%	1.03%		
6	Torresdale	5,000,651	0	5,000,651	0.023588	117,955	5,000,651	0	5,000,651	2.36%	0.61%		
7	Torresdale Intake Conduit	0	0	0	0.023588	0	0	0	0	2.36%	0.00%		
8	Torresdale Raw Water Basin	0	0	0	0.023588	0	0	0	0	2.36%	0.00%		
9	Total	19,302,819	31,439	19,271,380	0.020600	396,906	19,302,819	31,439	19,271,380		2.06%		
	Treated Water								Treated Wtr	Booster PS		Treated Wtr	Booster PS
10	East Park	1,997,608	3,000	1,994,608	0.020000	39,892	1,997,608	3,000		1,994,608	2.00%	0.00%	0.29%
11	Foxchase	4,540,250	5,000	4,535,250	0.017254	78,251	4,540,250	5,000		4,535,250	1.73%	0.00%	0.56%
12	Oak Lane	578,636	0	578,636	0.020000	11,573	578,636	0		578,636	2.00%	0.00%	0.08%
13	Roxborough High Service	6,026,090	0	6,026,090	0.020000	120,522	6,026,090	0		6,026,090	2.00%	0.00%	0.87%
14	West Oak Lane	755,181	16,614	738,567	0.020000	14,771	755,181	16,614		738,567	2.00%	0.00%	0.11%
15	Torresdale Low Service	8,918,674	0	8,918,674	0.020000	178,373	8,918,674	0	8,918,674		2.00%	0.25%	0.00%
16	Torresdale High Service	7,245,783	0	7,245,783	0.020000	144,916	7,245,783	0	7,245,783		2.00%	0.20%	0.00%
17	Lardner's Point	4,317,959	45,000	4,272,959	0.020000	85,459	4,317,959	45,000	4,272,959		2.00%	0.12%	0.00%
18	Belmont High Service	13,739,189	0	13,739,189	0.020000	274,784	13,739,189	0	13,739,189		2.00%	0.39%	0.00%
19	Queen Lane High Service	36,657,186	0	36,657,186	0.020000	733,144	36,657,186	0	36,657,186		2.00%	1.03%	0.00%
20	Roxborough Exp. High Service	487,079	0	487,079	0.020000	9,742	487,079	0	487,079		2.00%	0.01%	0.00%
21	Chestnut Hill	1,000	1,000	0	0.019745	0	1,000	1,000		0	1.97%	0.00%	0.00%
22	Total	85,264,634	70,614	85,194,020	0.019900	1,691,427	85,263,634	69,614	71,320,870	13,873,150		2.00%	1.91%
	High Pressure Fire												
23	Race Street	0	0	0	0.011201	0	0	0	0	1.12%	0.00%		
24	Fairhill	7,299	0	7,299	0.018285	133	7,299	0	7,299	1.83%	1.83%		
25	Total	7,299	0	7,299	0.018200	133	7,299	0	7,299		1.83%		
	Purification & Treatment												
26	Belmont Filters	88,946,554	273,443	88,673,111	0.027454	2,434,432	88,946,554	273,443	88,673,111	2.75%	0.71%		
27	Lower Roxborough Filters	68,446	2,500	65,946	0.028571	1,884	68,446	2,500	65,946	2.86%	0.00%		
28	Upper Roxborough Filters	1,074,626	63,000	1,011,626	0.028242	28,570	1,074,626	63,000	1,011,626	2.82%	0.01%		
29	Queen Lane Filters	97,806,614	677,180	97,129,434	0.025207	2,448,342	97,806,614	677,180	97,129,434	2.52%	0.71%		
30	Torresdale Filters	158,730,301	309,000	158,421,301	0.018539	2,936,973	158,730,301	309,000	158,421,301	1.85%	0.85%		
31	Belmont Control Center	0	0	0	0.025000	0	0	0	0	2.50%	0.00%		
32	Total	346,626,541	1,325,123	345,301,418	0.022700	7,850,201	346,626,541	1,325,123	345,301,418		2.27%		
	Transmission & Distribution - Mains												
33	Mains-Total	704,547,534	0	704,547,534	0.018513	13,043,011	704,547,534	0	704,547,534	1.85%	1.85%		
34													
	Transmission & Distribution - Other												
35	Oak Lane Reservoir	8,348,273	64,776	8,283,497	0.040845	338,339	8,348,273	64,776	8,283,497	4.08%	1.15%		
36	East Park Reservoir	16,234,857	100,000	16,134,857	0.040140	647,653	16,234,857	100,000	16,134,857	4.01%	2.21%		
37	Somerton Tanks	4,491,880	17,000	4,474,880	0.018372	82,213	4,491,880	17,000	4,474,880	1.84%	0.28%		
38	Deepwell Transfer	7,655	0	7,655	0.025000	191	7,655	0	7,655	2.50%	0.00%		
39	Roxborough Tanks	1,382	0	1,382	0.025000	35	1,382	0	1,382	2.50%	0.00%		
40	Filtered Water Storage	39,587	0	39,587	0.025000	990	39,587	0	39,587	2.50%	0.00%		
41	George Hill Reservoir	390,000	0	390,000	0.025000	9,750	390,000	0	390,000	2.50%	0.03%		
42	Meters	75,015,097	0	75,015,097	0.070000	5,251,057			0	7.00%	0.00%		
43	Fire Hydrants	9,200,000	0	9,200,000	0.025000	230,000			0	2.50%	0.00%		
44	Total	113,728,732	181,776	113,546,956	0.057800	6,560,228	113,728,732	181,776	29,331,859		3.68%		
					0.036800	<<== Excludes Meters & Hydrants							
45	Load Control Center	0		0									
	Administration & General												
	Undetermined Location	102,959,384		102,959,384	0.025000	2,573,985	102,959,384		102,959,384	2.50%	1.72%		
	All Other	46,483,161	204,625	46,278,536	0.032871	1,521,222	46,483,161	204,625	46,278,536	3.29%	1.02%		
46	Total Administration & General	149,442,545	204,625	149,237,920	0.027400	4,095,207	149,442,545	204,625	149,237,920	2.74%	2.74%		
47	TOTAL	1,426,715,710	2,013,577	1,424,702,133	0.023700	33,827,003	1,426,715,710	1,812,577	1,319,018,280	2.37%	2.37%		
	Check with column (1) - (2)			1,424,702,133									

(a) Plant investment not included as used & useful.
(b) Depreciation rates in this column were extracted from file Wrcld.wk4 of file Philly\31416100\CamdenNJ\OC. Rates in that file are based on the Fixed Asset Listing as of 6/30/97.

Line No.	Description	(1) Est. Test Yr. Plant Investment $ Plant-14	(2) Total Test Yr. Depr. Expense $ Plant-14	(3) Bucks County Direct (50% Scenario 1, 50% Scenario 2, 0% Scenario 3) Test Yr. Plant Investment $ Plant-12	(4) Test Yr. Capital Cost $ Plant-12	(5) Test Yr. Return on Plant $ Plant-12	(6) Test Yr. Depr. Expense $ Plant-12	(7) Aqua PA Test Yr. Plant Investment $ Plant-12	(8) Test Yr. Capital Cost $ Plant-12	(9) Test Yr. Return on Plant $ Plant-12	(10) Test Yr. Depr. Expense $ Plant-12
	Raw Water Supply and Pumping										
	Source of Supply										
1	Land	200,000									
2	Buildings and Equipment	7,595,606	189,890								
	Power and Pumping										
3	Land	31,439		0	0	0	0	361	27	27	0
4	Buildings and Equipment	19,271,380	396,906	0	0	0	0	221,376	21,162	16,603	4,559
5	Total Raw Water Supply and Pumping	27,098,425	586,796	0	0	0	0	221,737	21,189	16,630	4,559
	Purification and Treatment										
	Power and Pumping (a)										
6	Land	70,614		0	0	0	0	1,162	87	87	0
7	Buildings and Equipment	85,194,020	1,691,427	0	0	0	0	1,446,283	137,213	108,471	28,742
	Treatment										
8	Land	1,325,123		0	0	0	0	23,056	1,729	1,729	0
9	Buildings and Equipment	345,301,418	7,850,201	0	0	0	0	6,007,992	587,187	450,599	136,588
10	Total Purification and Treatment	431,891,176	9,541,628	0	0	0	0	7,478,493	726,216	560,886	165,330
	Transmission and Distribution										
11	Mains	704,547,534	13,043,011	0	0	0	0	3,290,844	307,735	246,813	60,922
12	Meters	75,015,097	5,251,057	0	0	0	0		0		
13	Hydrants	9,200,000	230,000	0	0	0	0		0		
	Filtered Water Storage										
14	Land	181,776		0	0	0	0	3,163	237	237	0
15	Buildings and Equipment	29,331,859	1,079,171	0	0	0	0	510,353	57,053	38,276	18,777
	High Pressure Fire System										
16	Land	0		0	0	0	0		0		
17	Mains 0.0000 of Mains	0	0								
18	Buildings and Equipment	7,299	133	0	0	0	0		0		
19	Total Transmission and Distribution	818,283,565	19,603,372	0	0	0	0	3,804,360	365,025	285,326	79,699
20	Total excluding Administrative and General	1,277,273,165	29,731,796	0	0	0	0	11,504,590	1,112,430	862,842	249,588
	Administrative and General										
21	Land	204,625		0	0	0	0	1,854	139	139	0
22	Buildings and Equipment	149,237,920	4,095,207	0	0	0	0	1,352,463	138,492	101,435	37,057
23	Total Administrative and General	149,442,545	4,095,207	0	0	0	0	1,354,317	138,631	101,574	37,057
24	Total Water Plant Investment	1,426,715,710	33,827,003	0	0	0	0	12,858,907	1,251,061	964,416	286,645

Agrees with BOX 1 within $1,000

(a) Includes booster pumping

BOX 1		
Booked Original Cost	Plant-5	1,464,893,236
Land	Plant-14	2,013,577
Meters	Plant-14	75,015,097
Fire Hydrants	Plant-14	9,200,000
Other Additions	Plant-14	0
Sewer Allocated A&G Less Land		
Sewer Allocated A&G Incl. Lan	124,625,348	Plant-7
Less A&G Land (Water & Sewe	(423,773)	Plant-7
Plus Water Allocated Land	204,625	Plant-7
Sewer Allocated A&G Less Land		(124,406,200)
Total Water Plant Investment		1,426,715,710

Plant-13

Aqua PA Maximum Day 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	CHECKS Depr Rate
	Source of Supply							
1	Land	200,000					0.00%	
2	Buildings and Equipment	7,595,606					0.00%	
	Power and Pumping							
	Raw Water Power & Pumping							
3	Land	31,439	361	27			1.15%	0.00%
4	Buildings & Equipment	19,271,380	221,376	16,603	4,559		1.15%	2.06%
	Treatment							
	Purification							
5	Land	1,325,123	23,056	1,729			1.74%	0.00%
6	Buildings & Equipment	345,301,418	6,007,992	450,599	136,588		1.74%	2.27%
	Treated Water Power & Pumping							
7	Land	45,000	783	59			1.74%	0.00%
8	Buildings & Equipment	71,320,870	1,240,931	93,070	24,819		1.74%	2.00%
9	Total Supply and Treatment	437,295,230	7,494,499	562,087	165,966		1.71%	2.21%
	Distribution							
	Booster Pumping							
10	Land	25,614	379	28			1.48%	0.00%
11	Buildings & Equipment	13,873,150	205,352	15,401	3,923		1.48%	1.91%
	Filtered Water Storage							
12	Land	181,776	3,163	237			1.74%	0.00%
13	Buildings & Equipment	29,331,859	510,353	38,276	18,777		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")	515,410,602					0.00%	
17	Large Mains (24" & Over)	189,136,932	3,290,844	246,813	60,922		1.74%	1.85%
18	Fire Hydrants	9,200,000					0.00%	
19	Meters	75,015,097					0.00%	
20	Total Distribution	832,182,329	4,010,091	300,755	83,622		0.48%	2.09%
	Administrative and General (a)							
21	Land	204,625	1,854	139			0.91%	0.00%
22	Buildings & Equipment	149,237,920	1,352,463	101,435	37,057		0.91%	2.74%
23	Total Administrative and General	149,442,545	1,354,317	101,574	37,057		0.91%	2.74%
24	TOTAL INVESTMENT	1,418,920,105	12,858,907	964,416	286,645		0.91%	2.23%
	Return @ 7.50%		964,418			1,251,000		

WCOS15_17.XLS

WPLTALLO

Philadelphia Water Department (PWD)

Water Utility dinancial Planning & Rate Design

Description of Worksheet:
This worksheet allocates water treatment plant investment among customers classes.

The "Wpltallo" worksheet allocates water treatment plant investment and annual depreciation to cost functions.

Range	Description	Page Number	Table
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 2017

Line No.	Description	(1) Estimated Test Year Plant Investment $ Plant-15	(2) Base $	(3) Extra Capacity Maximum Day $	(4) Extra Capacity Maximum Hour In Excess of Maximum Day $	(5) Customer Meters $	(6) Public Fire Protection - Direct Standard Pressure $	(7) Public Fire Protection - Direct High Pressure $	(8) Wholesale Direct $ Plant-15	Allocation Basis: Wpltallo-3 Base	Max Day	Max Hour	Bucks County	Aqua PA
	Raw Water Supply and Pumping													
	Source of Supply													
1	Land	200,000	200,000							100%				
2	Buildings and Equipment	7,596,000	7,596,000							100%				
	Power and Pumping													
3	Land	31,000	24,000	7,000					0	77%	23%		0	0
4	Buildings and Equipment	19,271,000	14,669,000	4,381,000					221,000	77%	23%		0	221,000
5	Total Raw Water Supply and Pumping	27,098,000	22,489,000	4,388,000					221,000					221,000
	Purification and Treatment													
	Power and Pumping (a)													
6	Land	71,000	41,000	10,000	19,000				1,000	58%	14%	28%	0	1,000
7	Buildings and Equipment	85,194,000	48,574,000	11,725,000	23,449,000				1,446,000	58%	14%	28%	0	1,446,000
	Treatment													
8	Land	1,325,000	1,003,000	299,000					23,000	77%	23%		0	23,000
9	Buildings and Equipment	345,301,000	261,256,000	78,037,000					6,008,000	77%	23%		0	6,008,000
10	Total Purification and Treatment	431,891,000	310,874,000	90,071,000	23,468,000				7,478,000					7,478,000
	Transmission and Distribution													
11	Mains	704,548,000	406,729,000	98,176,000	196,352,000				3,291,000	58%	14%	28%	0	3,291,000
12	Meters	75,015,000				75,015,000			0	100% Meters				0
13	Hydrants	9,200,000					9,200,000		0	100% Standard Pressure Fire				0
	Filtered Water Storage													
14	Land	182,000	104,000	25,000	50,000				3,000	58%	14%	28%	0	3,000
15	Buildings and Equipment	29,332,000	16,717,000	4,035,000	8,070,000				510,000	58%	14%	28%	0	510,000
	High Pressure Fire System (b)													
16	Land	0						0	0	100% High Pressure Fire				
17	Mains	0						0	0	100% High Pressure Fire				
18	Buildings and Equipment	7,000						7,000	0	100% High Pressure Fire				
19	Total Transmission and Distribution	818,284,000	423,550,000	102,236,000	204,472,000	75,015,000	9,200,000	7,000	3,804,000					3,804,000
20	Subtotal	1,277,273,000	756,913,000	196,695,000	227,940,000	75,015,000	9,200,000	7,000	11,503,000					11,503,000
	Administrative and General													
21	Land	205,000	121,000	32,000	37,000	12,000	1,000	0	2,000	Subtotal Line 20 (excluding Bucks)			0	2,000
22	Buildings and Equipment	149,238,000	88,434,000	22,981,000	26,631,000	8,764,000	1,075,000	1,000	1,352,000	Subtotal Line 20 (excluding Bucks)			0	1,352,000
23	Total Administrative and General	149,443,000	88,555,000	23,013,000	26,668,000	8,776,000	1,076,000	1,000	1,354,000					1,354,000
24	Total Water Plant Investment	1,426,716,000	845,468,000	219,708,000	254,608,000	83,791,000	10,276,000	8,000	12,857,000					12,857,000
			59.3%	15.4%	17.8%	5.9%	0.7%	0.0%	0.9%				0.0%	0.9%
	(a) Includes booster pumping													
	(b) Allocated to Mains	1,178,875,000	657,611,000	194,736,000	207,024,000	73,562,000	9,731,000		36,211,000	PREVIOUS STUDY			26,217,000	9,994,000
			55.8%	16.5%	17.6%	6.2%	0.8%	0.0%	3.1%	PREVIOUS STUDY			2.2%	0.8%

Reference: BD-23

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Flow Output			Demand Factors			Allocation Factors	
	Avg Day	Max Day	Max Rate	Base	Max Day	Max Hr	Base	Max Day	Max Hr
	mgd	mgd	mgd						
					(2)/(1)	(3)/(1)	1-(7)-(8)	(2)-(1)]/[(3) or (2)	[(3)-(2)]/(3)
Raw Water Pumping									
FY 2008	273.6	345.7		1.00	1.26	0.00	0.79	0.21	0.00
FY 2009	268.0	349.0		1.00	1.30	0.00	0.77	0.23	0.00
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
Avg FY 2008 - FY 2014	265.4	346.5		1.00	1.31	0.00	0.77	0.23	0.00
Avg FY 2010 - FY 2014	263.3	346.1		1.00	1.31	0.00	0.76	0.24	0.00
Avg FY 2012 - FY 2014	259.3	348.3		1.00	1.34	0.00	0.74	0.26	0.00
Maximum Demand Factors				1.00	1.41	0.00	0.71	0.29	0.00
USE				1.00	1.30	0.00	0.77	0.23	0.00
Filter Output									
FY 2008	256.1	302.5		1.00	1.18	0.00	0.85	0.15	0.00
FY 2009	250.8	303.9		1.00	1.21	0.00	0.83	0.17	0.00
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
Avg FY 2008 - FY 2014	248.5	304.5		1.00	1.23	0.00	0.82	0.18	0.00
Avg FY 2010 - FY 2014	246.5	305.0		1.00	1.24	0.00	0.81	0.19	0.00
Avg FY 2012 - FY 2014	242.9	304.5		1.00	1.25	0.00	0.80	0.20	0.00
Maximum Demand Factors				1.00	1.31	0.00	0.76	0.24	0.00
USE							0.77	0.23	0.00
Plant Output - Total									
FY 2008	252.0	306.7		1.00	1.22	0.00	0.82	0.18	0.00
FY 2009	245.6	295.3		1.00	1.20	0.00	0.83	0.17	0.00
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
Avg FY 2008 - FY 2014	243.8	297.1		1.00	1.22	0.00	0.82	0.18	0.00
Avg FY 2010 - FY 2014	241.8	295.6		1.00	1.22	0.00	0.82	0.18	0.00
Avg FY 2012 - FY 2014	238.2	293.9		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							0.77	0.23	

Reference: BD-23

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
		Flow Output			Demand Factors			Allocation Factors			Average Annual Increase	
	Avg Day	Max Day	Max Rate	Base	Max Day	Max Hr	Base	Max Day	Max Hr	Annual Increase	From FY 2009	Through FY 2014
	mgd	mgd	mgd									
					(2)/(1)	(3)/(1)	1-(7)-(8)	(2)-(1)]/[(3) or (2)	[(3)-(2)]/(3)			
Total Districts Incl. Bucks Co												
FY 2008	250.7	302.1	406.9	1.00	1.21	1.62	0.61	0.13	0.26			
FY 2009	245.8	292.0	370.4	1.00	1.19	1.51	0.67	0.12	0.21	-2.0%	-2.0%	-0.9%
FY 2010	244.5	286.2	365.0	1.00	1.17	1.49	0.67	0.11	0.22	-0.5%	-1.3%	-0.6%
FY 2011	250.0	313.6	433.8	1.00	1.25	1.74	0.57	0.15	0.28	2.3%	-0.1%	-0.7%
FY 2012	237.1	317.4	421.4	1.00	1.34	1.78	0.56	0.19	0.25	-5.1%	-1.4%	-2.1%
FY 2013	238.3	293.3	394.1	1.00	1.23	1.65	0.60	0.14	0.26	-4.7%	-1.0%	-4.2%
FY 2014	239.5	295.5	428.4	1.00	1.23	1.79	0.56	0.13	0.31	1.0%	-0.9%	1.0%
Avg FY 2008 - FY 2014	243.7	300.0	402.9	1.00	1.23	1.65	0.60	0.14	0.26			
Avg FY 2010 - FY 2014	241.9	301.2	408.5	1.00	1.25	1.69	0.59	0.15	0.26			
Avg FY 2012 - FY 2014	238.3	302.1	414.6	1.00	1.27	1.74	0.58	0.15	0.27			
Maximum Demand Factors				1.00	1.34	1.79	0.56	0.19	0.25			
USE	250.0	.....	.....	1.00	1.25	1.74	0.58	0.14	0.28			
Bucks County												
FY 2008	15.0	20.7	23.5	1.00	1.38	1.56	0.64	0.24	0.12			
FY 2009	14.4	19.8	29.9	1.00	1.37	2.08	0.48	0.18	0.34			
FY 2010	15.5	19.1	23.5	1.00	1.23	1.52	0.66	0.15	0.19			
FY 2011	15.5	21.1	23.3	1.00	1.36	1.50	0.67	0.24	0.09			
FY 2012	13.0	19.9	21.9	1.00	1.53	1.68	0.59	0.32	0.09			
FY 2013	11.0	14.7	21.8	1.00	1.34	1.98	0.50	0.17	0.33			
FY 2014	11.6	14.6	22.4	1.00	1.26	1.93	0.52	0.13	0.35			
Avg FY 2008 - FY 2014	13.7	18.6	23.8	1.00	1.36	1.74	0.57	0.31	0.12			
Avg FY 2010 - FY 2014	13.3	17.9	22.6	1.00	1.35	1.70	0.59	0.20	0.21			
Avg FY 2012 - FY 2014	11.9	16.4	22.0	1.00	1.38	1.85	0.55	0.20	0.25			
Maximum Demand Factors				1.00	1.53	2.08	0.49	0.25	0.26			
Used in Prior Rate Case	14.9				1.64							
USE	0.0	0.0	.....	.....	1.64	.....	.....	.....	.....			
	See Bucks Co. TY Usage ======	==========	==========	==========	==========	==========	==========	==========	==========	========>		

BUCKS CO. TEST YEAR USAGE

	Annual Usage (mcf)	Peak Usage mgd
		0.00
2013	535,749	
2014	535,000	
2015	0	
2016	0	
2017	0	
2018	0	
2019	0	
2020	0	
2021	0	
2022	0	
TY 2017 Usage (mcf)	0	
TY 2017 Usage (mgd)	0.0	

Baxter Plant	% of Total												
FY 2008	57.6%	144.4	176.7		1.00	1.22	0.00	0.82	0.18	0.00			
FY 2009	57.6%	141.6	183.1		1.00	1.29	0.00	0.77	0.23	0.00	-1.9%	-1.9%	-1.1%
FY 2010	56.7%	138.7	177.7		1.00	1.28	0.00	0.78	0.22	0.00	-2.1%	-2.0%	-0.9%
FY 2011	56.0%	139.9	160.6		1.00	1.15	0.00	0.87	0.13	0.00	0.8%	-1.1%	-0.6%
FY 2012	57.3%	135.8	174.3		1.00	1.28	0.00	0.78	0.22	0.00	-2.9%	-1.5%	-1.3%
FY 2013	56.5%	134.6	182.2		1.00	1.35	0.00	0.74	0.26	0.00	-3.7%	-1.4%	-2.5%
FY 2014	56.9%	136.4	167.7		1.00	1.23	0.00	0.81	0.19	0.00	0.4%	-1.1%	0.4%
Avg FY 2008 - FY 2014	57.0%	138.8	174.6		1.00	1.26	0.00	0.79	0.21	0.00			
Avg FY 2010 - FY 2014		137.1	172.5		1.00	1.26	0.00	0.79	0.21	0.00			
Avg FY 2012 - FY 2014		135.6	174.7		1.00	1.29	0.00	0.78	0.22	0.00			
Maximum Demand Factors					1.00	1.35	0.00	0.74	0.26	0.00			
USE	56.0%	140.0				1.29							
Baxter Low Service													
FY 2008		40.8	58.7	69.7	1.00	1.44	1.71	0.58	0.26	0.16			
FY 2009		46.7	63.1	79.6	1.00	1.35	1.70	0.58	0.21	0.21			
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			
Avg FY 2008 - FY 2014		44.6	62.1	77.0	1.00	1.39	1.73	0.58	0.23	0.19			
Avg FY 2010 - FY 2014		45.0	62.6	78.0	1.00	1.39	1.73	0.57	0.23	0.20			
Avg FY 2012 - FY 2014		43.1	62.3	81.3	1.00	1.45	1.89	0.53	0.24	0.23			
Maximum Demand Factors					1.00	1.49	2.03	0.49	0.24	0.27			
USE		48.0					1.70						

TABLE W-9

ALLOCATION OF TEST YEAR WATER PLANT DEPRECIATION EXPENSE
TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2017

Line No.	Description	(1) Total Test Year Depreciation Expense $ Plant-15	(2) Base $	(3) Extra Capacity: Maximum Day $	(4) Extra Capacity: Maximum Hour In Excess of Maximum Day $	(5) Customer Meters $	(6) Public Fire Protection - Direct: Standard Pressure $	(7) Public Fire Protection - Direct: High Pressure $	(8) Wholesale Direct $ Plant-15	Allocation Basis: Base	Max Day	Max Hour	Bucks County	Aqua PA
	Raw Water Supply and Pumping													
1	Source of Supply	190,000	190,000							100%				
2	Power and Pumping	397,000	302,000	90,000					5,000	77%	23%		0	5,000
3	Total Supply and Pumping	587,000	492,000	90,000					5,000					5,000
	Purification and Treatment													
4	Power and Pumping (a)	1,691,000	964,000	233,000	465,000				29,000	58%	14%	28%	0	29,000
5	Treatment	7,850,000	5,939,000	1,774,000					137,000	77%	23%		0	137,000
6	Total Purification and Treatment	9,541,000	6,903,000	2,007,000	465,000				166,000					166,000
	Transmission and Distribution													
7	Mains	13,043,000	7,530,000	1,817,000	3,635,000				61,000	58%	14%	28%	0	61,000
8	Meters	5,251,000				5,251,000			0	100% Meters				
9	Hydrants	230,000					230,000		0	100% Standard Pressure Fire				
10	Filtered Water Storage	1,079,000	615,000	148,000	297,000				19,000	58%	14%	28%	0	19,000
11	High Pressure Fire System	0						0	0	100% High Pressure Fire				
12	Total Transmission and Distribution	19,603,000	8,145,000	1,965,000	3,932,000	5,251,000	230,000		80,000					80,000
13	Subtotal	29,731,000	15,540,000	4,062,000	4,397,000	5,251,000	230,000		251,000					251,000
14	Administrative and General	4,095,000	2,427,000	631,000	731,000	240,000	29,000	0	37,000	Allocation of Plant A & G			0	37,000
15	Total Water Plant Expense	33,826,000	17,967,000	4,693,000	5,128,000	5,491,000	259,000		288,000					288,000
			53.1%	13.9%	15.2%	16.2%	0.8%	0.0%	0.9%				0.0%	0.9%
	(a) Includes booster pumping													
		27,966,000	13,749,000	4,093,000	4,089,000	4,984,000	245,000		806,000	PREVIOUS STUDY			584,000	222,000
			49.2%	14.6%	14.6%	17.8%	0.9%	0.0%	2.9%	PREVIOUS STUDY			2.1%	0.8%

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WOMALLO

Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Worksheet Description: This worksheet allocates Water Operation and Maintenance Expense to Functional Cost Components

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	
ESSER	E&SS Services O&M Expense	Womallo-8	
XXXXX	PAGE NOT IN USE	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	
BCAP	Bucks County O&M Allocation Percentages	Womallo-13	
ATOM	Allocation of Total O&M Expense	Womallo-14	
BCOM	O&M Allocation to Bucks County (Scenarios)	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	

Reference: Finanical Planning Model
Link Worksheet

Line No.		(1) Test Year Class 100 Expend. $	(2) Test Year Class 200 Expenditures Power $	(3) All Other $	(4) Total $	(5) Test Year Class 300 Expenditures Chemicals $	(6) All Other $	(7) Total $	(8) Test Year Class 400 Expend. $	Total $	
	OPERATIONS DIVISION										
	DIRECT COSTS										
1	Baxter Treatment Plant	3,096,292	87,705	1,162,906	1,250,610	8,294,984	1,029,951	9,324,935	418,695	14,090,534	
2	Queen Lane Treatment Plant	3,021,715	56,131	797,094	853,225	4,679,068	724,633	5,403,701	26,262	9,304,903	
3	Belmont Treatment Plant	3,035,200	45,606	395,273	440,880	4,034,440	461,565	4,496,004	35,266	8,007,351	
4	Conveyance Headquarters	0	0	0	0	0	0	0	0	0	
5	Load Control	1,740,730	912,129	1,134,263	2,046,391	0	104,430	104,430	22,511	3,914,062	
6	Distribution	14,588,054	0	937,854	937,854	29,983	235,964	265,947	208,597	16,000,452	
7	Pumping	2,566,612	0	342,079	342,079	2,646	399,385	402,031	30,764	3,341,486	
8	Emergency & Support Services	0	0	0	0	0	0	0	0	0	
9	Subtotal	28,048,603	1,101,571	4,769,468	5,871,039	17,041,120	2,955,928	19,997,048	742,096	54,658,787	
	ALLOCATED COSTS										
10	Treatment Headquarters	218,620	0	107,616	107,616	882	3,229	4,110	1,876	332,222	
11	Machine Shops	0	0	0	0	0	0	0	0	0	
12	Building Maintenance	0	0	0	0	0	0	0	0	0	
13	Security	0	0	0	0	0	0	0	0	0	
14	Operations Admin.	2,403,467	8,398,601	2,896,544	11,295,145	0	313,330	313,330	40,519	14,052,461	
15	Mtls. Management	879,443	0	92,067	92,067	17,637	3,042,422	3,060,058	750	4,032,319	
16	Customer Service	716,771	0	1,516,033	1,516,033	0	13,153	13,153	6,378	2,252,336	
17	Warranty Program	0	0	0	0	0	0	0	0	0	
18	Meter Shop	1,266,397	0	910,438	910,438	0	52,215	52,215	4,127	2,233,177	
19	Automotive Maintenance	0	0	0	0	0	0	0	0	0	
20	Subtotal Allocated Costs	5,484,699	8,398,601	5,522,698	13,921,298	18,519	3,424,349	3,442,867	53,650	22,902,515	
21	Total Operations	33,533,302	9,500,172	10,292,166	19,792,338	17,059,639	6,380,277	23,439,915	795,747	77,561,301	
										77,561,301	
	FRINGE BENEFITS										
22	Admin & Hr									2,571,142	
23	Finance									894,254	
24	Planning & Engr.									4,686,487	
	Information Science & Tech									2,687,679	
25	Operations									29,415,811	
26	Public Affairs									1,322,850	
27	Dept. Of Revenue (WRB)									3,236,803	
28	Law Dept.									757,564	
29	Total Fringe Benefits									45,572,590	
	INTERDEPARTMENTAL										
30	WRB Expense									5,465,708	
31	All Other Expenses									6,550,156	
32	FINANCE & ADMIN									6,665,100	
33	HUMAN RESOURCES									4,744,029	
34	PLANNING & ENGINEERING	5,342,480			8,518,941			419,478	181,216	14,462,116	
35	INFORMATION SCIENCE & TECH	3,063,888			6,721,587			830,703	0	10,616,178	25,078,294
36	PUBLIC AFFAIRS									5,044,817	
37	INDEMNITIES									2,405,000	
38	TOTAL O&M EXPENSE (Adjusted for Liquidated Encumbrances)									179,086,994	25,078,294

Control Total Summary:		
Fringe Benefits	45,572,590	This page
Interdepartmental	55,953,103	This page
Operations	77,561,301	This page
Subtotal	179,086,994	
WTP Sludge	10,952,000	Womallo-16
Total	190,038,994	
Total agrees with Womallo-16		Womallo-16

Reference: Womallo-2

WATER UTILITY EXPENDITURES
TEST YEAR 2017

	(1) TRT HQ $	(2) Baxter $	(3) Queen Lane $	(4) Belmont $	(5) Treatment Subtotal $ (1)+(2)+(3)+(4)	(6) CONV HQ $	(7) Load Control $	(8) Dist. $	(9) Emerg & SS $	(10) Pumping $	(11) Control Subtotal $ (6)+(7)+(8)+(9)+(10)
PERSONAL SERVICES											
Total Class 100	218,620	3,096,292	3,021,715	3,035,200	9,371,827	0	1,740,730	14,588,054	0	2,566,612	18,895,395
PURCHASED SERVICES											
Power - Class 220	0	87,705	56,131	45,606	189,442	0	912,129	0	0	0	912,129
xxxxxxxx											
Power Less L.E. - Class 220	0	87,705	56,131	45,606	189,442	0	912,129	0	0	0	912,129
All Other	107,616	1,162,906	797,094	395,273	2,462,889	0	1,134,263	937,854	0	342,079	2,414,196
xxxxxxxx											
All Other Less L.E.	107,616	1,162,906	797,094	395,273	2,462,889	0	1,134,263	937,854	0	342,079	2,414,196
Total Class 200	107,616	1,250,610	853,225	440,880	2,652,331	0	2,046,391	937,854	0	342,079	3,326,324
MATERIALS AND SUPPLIES											
Chemicals - Class 307	882	8,294,984	4,679,068	4,034,440	17,009,374	0	0	29,983	0	2,646	32,628
xxxxxxxx											
Chemicals less L.E. - Class 3	882	8,294,984	4,679,068	4,034,440	17,009,374	0	0	29,983	0	2,646	32,628
All Other	3,229	1,029,951	724,633	461,565	2,219,377	0	104,430	235,964	0	399,385	739,779
xxxxxxxx											
All Other Less L.E.	3,229	1,029,951	724,633	461,565	2,219,377	0	104,430	235,964	0	399,385	739,779
Total Class 300	4,110	9,324,935	5,403,701	4,496,004	19,228,751	0	104,430	265,947	0	402,031	772,407
EQUIPMENT											
Total Class 400	1,876	418,695	26,262	35,266	482,100	0	22,511	208,597	0	30,764	261,872
Total Classes 100 - 400	332,222	14,090,534	9,304,903	8,007,351	31,735,009	0	3,914,062	16,000,452	0	3,341,486	23,255,999

BOX 1 - LIQUIDATED ENCUMBRANCES

Split Liquidated Encumbrances between Class 200 and 300:
Reference: File: RReq13.xls - Rreq-6

Water Liquidated Encumbrances for TY:

2015	2016	2017	2018	2019	2020

Early Liquidation of Water Encumbrances for TY:

2015	2016	2017	2018	2019	2020

Net Liquidated Encumbrances:

2015	2016	2017	2018	2019	2020
0	0	0	0	0	0

TEST YEAR NET LIQUIDATED ENCUMBRANCES 0

SPLIT BETWEEN:

	Total	Treatment	Control
Class 200 Power		0	0
Class 200 All Other		0	0
Class 300 Chemicals		0	0
Class 300 All Other		0	0
	0		

	(12) GS HQ $	(13) CUST SERV $	(14) WARRANTY $	(15) METER SHOP $	(16) AUTO MAINT $	(17) BLDG MAINT $	(18) MACH SHOP $	(19) MTLS MGMT $	(20) SECURITY $	(21) GENERAL SUBTOTAL $ sum (12) thru (20)	(22) OPER ADMIN $	(23) OPER TOTAL $ (5)+(11)+(21)+(22)	(24) CHECK TOTAL $	(25) Difference $ (23) - (24)
PERSONAL SERVICES														
Total Class 100		716,771	0	1,266,397	0	0	0	879,443	0	2,862,612	2,403,467	33,533,302	33,533,302	0
PURCHASED SERVICES														
Power - Class 220		0	0	0	0	0	0	0	0	0	8,398,601	9,500,172	9,500,172	0
All Other (excluding Class 2	0	1,516,033	0	910,438	0	0	0	92,067	0	2,518,538	2,896,544	10,292,166	10,292,166	0
Total Class 200	0	1,516,033	0	910,438	0	0	0	92,067	0	2,518,538	11,295,145	19,792,338	19,792,338	0
MATERIALS AND SUPPLIES														
Chemicals - Class 307		0	0	0	0	0	0	17,637	0	17,637	0	17,059,639	17,059,639	0
All Other	0	13,153	0	52,215	0	0	0	3,042,422	0	3,107,790	313,330	6,380,277	6,380,277	0
Total Class 300	0	13,153	0	52,215	0	0	0	3,060,058	0	3,125,427	313,330	23,439,915	23,439,915	0
EQUIPMENT														
Total Class 400		6,378	0	4,127	0	0	0	750	0	11,255	40,519	795,747	795,747	0
Total Classes 100 - 400	0	2,252,336	0	2,233,177	0	0	0	4,032,319	0	8,517,832	14,052,461	77,561,301	77,561,301	0

Reference: Womallo-3

WATER UTILITY EXPENDITURES WITH ADJUSTMENTS
TEST YEAR 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	TRT HQ (a)	Baxter	Queen Lane	Belmont	Treatment Subtotal	CONV HQ (b)	Load Control	Dist.	Emerg & SS	Pumping c)	WC Subtotal
	$	$	$	$	$	$	$	$	$	$	$
					(1)+(2)+(3)+(4)						(6)+(7)+(8)+(9)+(10)
PERSONAL SERVICES											
Total Class 100	218,620	3,096,292	3,021,715	3,035,200	9,371,827	0	1,740,730	14,588,054	0	2,566,612	18,895,395
Adjustments	(218,620)	72,873	72,873	72,874	0	0	2,566,612	0	0	(2,566,612)	0
Adjusted Class 100	0	3,169,165	3,094,588	3,108,074	9,371,827	0	4,307,342	14,588,054	0	0	18,895,396
PURCHASED SERVICES											
Power - Class 220	0	87,705	56,131	45,606	189,442	0	912,129	0	0	0	912,129
Adjustments	0	668,678	427,954	347,713	1,444,345	0	6,954,256	0	0	0	6,954,256
Adjusted Power - Class 220	0	756,383	484,085	393,319	1,633,787	0	7,866,385	0	0	0	7,866,385
All Other	107,616	1,162,906	797,094	395,273	2,462,889	0	1,134,263	937,854	0	342,079	2,414,196
Adjustments	(107,616)	35,872	35,872	35,872	0	0	342,079	0	0	(342,079)	(0)
Adjusted All Other	0	1,198,778	832,966	431,145	2,462,889	0	1,476,342	937,854	0	0	2,414,195
Total Class 200	0	1,955,160	1,317,051	824,465	4,096,676	0	9,342,726	937,854	0	0	10,280,580
MATERIALS AND SUPPLIES											
Chemicals - Class 307	882	8,294,984	4,679,068	4,034,440	17,009,374	0	0	29,983	0	2,646	32,628
Adjustments	(882)	1,176	1,176	1,176	2,646	0	0	0	0	(2,646)	(2,646)
Adjusted Chemicals	0	8,296,160	4,680,244	4,035,615	17,012,019	0	0	29,983	0	0	29,983
All Other	3,229	1,029,951	724,633	461,565	2,219,377	0	104,430	235,964	0	399,385	739,779
Adjustments	(3,229)	1,076	1,076	1,077	0	0	399,385	0	0	(399,385)	(0)
Adjusted All Other	0	1,031,027	725,709	462,641	2,219,377	0	503,815	235,964	0	0	739,779
Total Class 300	0	9,327,187	5,405,953	4,498,257	19,231,397	0	503,815	265,947	0	0	769,762
EQUIPMENT											
Total Class 400	1,876	418,695	26,262	35,266	482,100	0	22,511	208,597	0	30,764	261,872
Adjustments	(1,876)	625	625	626	0	0	30,764	0	0	(30,764)	(0)
Adjusted Class 400	0	419,320	26,887	35,892	482,100	0	53,275	208,597	0	0	261,872
Adjusted Total Classes 100 - 400	0	14,870,833	9,844,479	8,466,688	33,182,000	0	14,207,158	16,000,452	0	0	30,207,609
Fringe Benefits (Womal) (d)	0	2,780,032	2,714,609	2,726,439	8,221,080	0	3,778,451	12,796,814	0	0	16,575,265
ADJUSTED TOTAL INCLUDING FRINGE BENEFITS	0	17,650,865	12,559,088	11,193,127	41,403,079	0	17,985,609	28,797,266	0	0	46,782,874

(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 2017

	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	
	GS HQ (a)	Customer Service	Warranty	Meter Shop	Auto Maint	BLDG MAINT	Machine Shop	MTLS MGMT	Security	General Subtotal	OPER ADMIN	OPER TOTAL	
	$	$	$	$	$	$	$	$	$	$	$	$	
										sum (12) thru (20)		(5)+(11)+(21)+(22)	
PERSONAL SERVICES													
Total Class 100	0	716,771	0	1,266,397	0	0	0	879,443	0	2,862,612	2,403,467	33,533,302	
Adjustments	0	0	0	0	0	0	0	0	0	0			
Adjusted Class 100	0	716,771	0	1,266,397	0	0	0	879,443	0	2,862,612	2,403,467	33,533,302	
PURCHASED SERVICES													
Power - Class 220	0	0	0	0	0	0	0	0	0	0	8,398,601	9,500,172	
Adjustments											(8,398,601)	0	
Adjusted Power - Class 220	0	0	0	0	0	0	0	0	0	0	0	9,500,172	
All Other (b)	0	1,516,033	0	910,438	0	0	0	92,067	0	2,518,538	2,896,544	10,292,166	
Adjustments	0	0	0	0	0	0	0	0	0	0			
Adjusted All Other	0	1,516,033	0	910,438	0	0	0	92,067	0	2,518,538	2,896,544	10,292,166	
Total Class 200	0	1,516,033	0	910,438	0	0	0	92,067	0	2,518,538	2,896,544	19,792,338	
MATERIALS AND SUPPLIES													
Chemicals - Class 307	0	0	0	0	0	0	0	17,637	0	17,637	0	17,059,639	
Adjustments										0			
Adjusted Chemicals	0	0	0	0	0	0	0	17,637	0	17,637	0	17,059,639	
All Other	0	13,153	0	52,215	0	0	0	3,042,422	0	3,107,790	313,330	6,380,277	
Adjustments	0	0	0	0	0	0	0	0	0	0			
Adjusted All Other	0	13,153	0	52,215	0	0	0	3,042,422	0	3,107,790	313,330	6,380,277	
Total Class 300	0	13,153	0	52,215	0	0	0	3,060,058	0	3,125,427	313,330	23,439,915	
EQUIPMENT													
Total Class 400	0	6,378	0	4,127	0	0	0	750	0	11,255	40,519	795,747	
Adjustments													
Adjusted Class 400	0	6,378	0	4,127	0	0	0	750	0	11,255	40,519	795,747	
Adjusted Total Classes 100 - 400	0	2,252,336	0	2,233,177	0	0	0	4,032,319	0	8,517,832	5,653,860	77,561,301	
												77,561,301	AGREES with Womallo-3
Fringe Benefits (Womallo-2) (b)	0	628,760	0	1,110,898	0	0	0	771,458	0	2,511,116	2,108,350	29,415,811	
ADJUSTED TOTAL INCLUDING FRINGE BENEFITS	0	2,881,096	0	3,344,075	0	0	0	4,803,777	0	11,028,948	7,762,210	106,977,112	

(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) BOX 2	Percent of Load Control	Load Control Power Cost $
Raw Water Pumping			
Baxter Plant	5.78%	6.39%	502,662
All Other	28.27%	31.25%	2,458,245
Subtotal	34.05%	37.64%	2,960,907
Treated Water Pumping			
Baxter Plant (Low Service)	7.12%	7.87%	619,084
All Other (b)	49.30%	54.49%	4,286,394
Subtotal	56.42%	62.36%	4,905,478
High Pressure Fire (c)	0.00%	0.00%	0
Total Load Control	90.47%	100.00%	7,866,385

(a) Percent of total system power bills based on 2 year average FY2012 and FY 2013.
(b) Includes booster pump stations and Filter Buildings.
(c) Includes Fairhill and Race Street pump stations.

BOX 2 - WATER DEPT ELECTRICAL EXPENDITURES

	FY 2012 $ BD 24	FY 2013 $ BD 24	Average $	%		
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)

All Other Load Control Expense:

	Test Year Plant Investment $ BOX 1	Percent	Percent of Load Control	Load Control Expense Excluding Power: Class100(a) $ Womallo-4	Class200 $ Womallo-4	Class300 $ Womallo-4	Class400 $ Womallo-4	Total $
			PUMPING RELATED:					
Raw Water Pumping								
Baxter Plant	5,000,651	4.78%	3.59%	290,280	53,001	18,087	1,913	363,281
All Other	14,302,168	13.68%	10.26%	829,602	151,473	51,691	5,466	1,038,232
Subtotal	19,302,819	18.46%	13.85%	1,119,882	204,474	69,778	7,379	1,401,513
Treated Water Pumping								
Baxter Plant (Low Service)	8,918,674	8.53%	6.40%	517,491	94,486	32,244	3,410	647,631
All Other	76,345,960	73.01%	54.74%	4,426,163	808,149	275,788	29,162	5,539,262
Subtotal	85,264,634	81.54%	61.14%	4,943,654	902,635	308,032	32,572	6,186,893
High Pressure Fire	7,299	0.01%	0.01%	809	148	50	5	1,012
Total Load Control	104,574,752	100.01%	75%	6,064,345	1,107,257	377,860	39,956	7,589,418
			DISTRIBUTION SYSTEM RELATED:					
			25%	2,021,448	369,085	125,954	13,319	2,529,806
			100.00%	8,085,793	1,476,342	503,815	53,275	10,119,224
								10,119,224 Agrees with Womallo-4

(a) Includes Fringe Benefits

BOX 1 - PLANT INVESTMENT

TEST YR PLANT IN SERVICE	$ Plant-8
POWER & PUMPING - RAW WATER	
Torresdale	5,000,651
Torresdale Intake Conduit	0
Torresdale Raw Water Basin	0
All Other	14,302,168
Total	19,302,819
PURIFICATION	
Torresdale Filters	158,730,301
All Other	187,896,240
Total	346,626,541
TREATED WATER	
Torresdale Low Service	8,918,674
All Other	76,345,960
Total	85,264,634
HIGH PRESSURE FIRE	7,299

Allocate to Purification **0%**

	Test Year Plant Investment (a) $ BOX 1	Percent of Total Distribution	Distribution Expense Class100 $ Womallo-4	Class200 $ Womallo-4	Class300 $ Womallo-4	Class400 $ Womallo-4	Total $
Transmission & Distribution Mains							
Small Mains	515,410,602	62.99%	16,530,921	566,137	160,539	125,920	17,383,517
Large Mains (24" and larger)	189,136,932	23.11%	6,064,924	207,706	58,899	46,198	6,377,727
Total Mains (exClassHP Fire)	704,547,534	86.10%	22,595,845	773,843	219,438	172,118	23,761,244
Fire Hydrants	9,200,000	1.12%	1,435,075	49,147	13,936	10,931	1,509,089
Meters	75,015,097	9.17%	2,406,549	82,417	23,371	18,331	2,530,668
Filt Water Storage & All Other	29,513,635	3.61%	947,399	32,447	9,202	7,217	996,265
High Pressure Fire System	7,299	0.00%	0	0	0	0	0
Total Distribution System	818,283,565	100.00%	27,384,868	937,854	265,947	208,597	28,797,266
	818,283,565	AGREES with BOX 1					
Included in Fire Hydrants Above			1,141,145	39,081	11,082	8,692	1,200,000 (b)
(a) Plant investment in Distribution related facilities.			27,384,868	937,854	265,947	208,597	28,797,266
Includes Fringe Benefits.							28,797,266

(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	573,281,617	70.06%	19,185,838	657,060	186,322	146,143	20,175,363
Large Mains (36" and larger)	131,265,916	16.04%	4,392,533	150,432	42,658	33,459	4,619,082
Total Mains (exClassHP Fire)	704,547,534	86.10%	23,578,371	807,492	228,980	179,602	24,794,445

BOX 1 - PLANT INVESTMENT

			%	$ Plant-15
Total Mains				704,547,534
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	3	26.8%	189,136,932
	Bucks County 48" Main			0
Fire Hydrants				9,200,000
Meters				75,015,097
Filtered Water Storage (exClassresevoirs)				39,587
All Other (Reservoirs)				29,474,048
Total Distribution System				113,728,732
High Pressure Fire System				7,299

COST CENTER NO LONGER BUDGETED

Reference: A. PN 13321.300, LRN memo of 4/21/89 - Copy included w/. PN 19289.100 as FN-20.

Service Description	Test Year Plant Investment $	Percent of Total Distribution (a) % Ref. A	E&S Services Expense Class100 (b) $ Womallo-4	Class200 $ Womallo-4	Class300 $ Womallo-4	Class400 $ Womallo-4	Total $		Allocation on Basis of Plant Investment	Plant $ Not Current as of 1/31/03 - RLP	Expense $
Valves		20.0%	0	0	0	0	0	(Mains)	Hydrants	8,135,000	0
Drills, Hydrants & Shut-off		44.0%	0	0	0	0	0	(Hydrants/Meters)	Meters	1,332,057	0
Emergencies		16.0%	0	0	0	0	0	(Mains)	Total	9,467,057	0
Total E & S Services Less Customer Service Related	0	80.0%	0	0	0	0	0				
Customer Service Related		20.0%	0	0	0	0	0				
Total E & S Services	0	100.0%	0	0	0	0	0				
							0	AGREES with Womallo-4			

Includes Fringe Benefits.

PAGE NOT IN USE - COST CENTERS CURRENTLY NOT BUDGETED

	(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	Womallo-4	Womallo-6	Womallo-7	Womallo-8	Womallo-5	Womallo-5	Womallo-5		Womallo-5
Source of Supply									
Raw Water Power & Pumping									
Baxter Treatment Plant									
Power									
All Other Costs		18,087					0	18,087	30,346
Subtotal	0	18,087	0	0	0	0	0	18,087	30,346
All Other Treatment Plants									
Power									
All Other Costs		51,691					0	51,691	86,726
Subtotal	0	51,691	0	0	0	0	0	51,691	86,726
Subtotal	0	69,778	0	0	0	0	0	69,778	117,072
Treatment									
Purification									
Baxter Treatment Plant									
Power									
Chemicals									
All Other Costs	1,031,027					0	0	1,031,027	1,729,831
Subtotal	1,031,027	0	0	0	0	0	0	1,031,027	1,729,831
All Other Treatment Plants									
Power									
Chemicals									
All Other Costs	1,188,350					0	0	1,188,350	1,993,784
Subtotal	1,188,350	0	0	0	0	0	0	1,188,350	1,993,784
Subtotal	2,219,377	0	0	0	0	0	0	2,219,377	3,723,615
Treated Water Power & Pumping									
Baxter Treatment Plant - L.S.									
Power									
All Other Costs		32,244					0	32,244	54,098
Subtotal	0	32,244	0	0	0	0	0	32,244	54,098
All Other Pumping									
Power									
All Other Costs		275,788					0	275,788	462,710
Subtotal	0	275,788	0	0	0	0	0	275,788	462,710
Subtotal	0	308,032	0	0	0	0	0	308,032	516,808
Total Supply & Treatment	2,219,377	377,810	0	0	0	0	0	2,597,187	4,357,495
DISTRIBUTION									
Filtered Water Storage			9,202			0		9,202	15,439
High Pressure Fire System		50				0		50	84
Transmission & Distribution Mains									
Small Mains (Less than 24")			160,539			0		160,539	269,348
Large Mains (24" & Over)			58,899			0		58,899	98,819
Subtotal	0	0	219,438	0	0	0	0	219,438	368,167
Fire Hydrants			13,936			0		13,936	23,381
Meters			23,371			0		23,371	39,211
Total Distribution	0	50	265,947	0	0	0	0	265,997	446,282
CUSTOMER ACCT. & COLLECTION			0		65,368			65,368	

ADMINISTRATIVE & GENERAL								0	0
TOTAL O & M	2,219,377	377,860	265,947	0	65,368	0	0	2,928,552	4,803,777
		377,860	265,947	0		0	0		4,803,777
		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")			186,322			0		186,322	312,606
Large Mains (36" & Over)			42,658			0		42,658	71,571
Subtotal	0	0	228,980	0	0	0	0	228,980	384,177

Line No.		(1) Treatment Plants (a) $ Womallo-4	(2) Conveyance (b) Load Control (i) $ Womallo-6	(3) Conveyance (b) Distribution $ Womallo-7	(4) E & S Services (j) $ Womallo-8	(5) Customer Service (c) $ Womallo-5	(6) Warranty Program $ Womallo-5	(7) Automotive Maint (d) $ Womallo-9	(8) Building Maint $ Womallo-9	(9) Machine Shop & Materials Management $ Womallo-10	(10) Subtotal $	(11) Admin. & General (f) $ Womallo-5	(12) Total Direct Expense $
	SUPPLY & TREATMENT												
1	Source of Supply												
	Raw Water Power & Pumping												
	Baxter Treatment Plant												
2	Power		502,662								502,662		502,662
3	All Other Costs		363,281						0	30,346	393,627		393,627
4	Subtotal		865,943						0	30,346	896,289	0	896,289
	All Other Treatment Plants												
5	Power		2,458,245								2,458,245		2,458,245
6	All Other Costs		1,038,232						0	86,726	1,124,958		1,124,958
7	Subtotal		3,496,477						0	86,726	3,583,203	0	3,583,203
8	Subtotal		4,362,420						0	117,072	4,479,492	0	4,479,492
	Treatment												
	Purification												
	Baxter Treatment Plant												
9	Power	756,383									756,383		756,383
10	Chemicals	8,296,160									8,296,160		8,296,160
11	All Other Costs	8,598,322						0	0	1,729,831	10,328,153		10,328,153
12	Subtotal	17,650,865						0	0	1,729,831	19,380,696	0	19,380,696
	All Other Treatment Plants												
13	Power	877,404									877,404		877,404
14	Chemicals	8,715,859									8,715,859		8,715,859
15	All Other Costs	14,158,952						0	0	1,993,784	16,152,736		16,152,736
16	Subtotal	23,752,215						0	0	1,993,784	25,745,999	0	25,745,999
17	Subtotal	41,403,080						0	0	3,723,615	45,126,695	0	45,126,695
	Treated Water Power & Pumping												
	Baxter Treatment Plant - L.S.												
18	Power		619,084								619,084		619,084
19	All Other Costs		647,631						0	54,098	701,729		701,729
20	Subtotal		1,266,715						0	54,098	1,320,813	0	1,320,813
	All Other Pumping												
21	Power		4,286,394								4,286,394		4,286,394
22	All Other Costs		5,539,262						0	462,710	6,001,972		6,001,972
23	Subtotal		9,825,656						0	462,710	10,288,366	0	10,288,366
	Subtotal		11,092,371						0	516,808	11,609,179	0	11,609,179
24	Total Supply & Treatment	41,403,080	15,454,791	0	0	0	0	0	0	4,357,495	61,215,366	0	61,215,366
	DISTRIBUTION												
25	Filtered Water Storage		95,953	996,265				0		15,439	1,107,657		1,107,657
26	High Pressure Fire System		1,012	0				0		84	1,096		1,096
	Transmission & Distribution Mains												
27	Small Mains (Less than 24")		1,674,253	17,383,517	0 (g)			0		269,348	19,327,118		19,327,118
28	Large Mains (24" & Over)		614,256	6,377,727	0 (g)			0		98,819	7,090,802		7,090,802
29	Subtotal		2,288,509	23,761,244	0			0		368,167	26,417,920	0	26,417,920
30	Fire Hydrants		145,344	1,509,089	0			0		23,381	1,677,814		1,677,814
31	Meters			2,530,668	0			0		39,211	2,569,879		2,569,879
32	Total Distribution	0	2,530,818	28,797,266	0	0	0	0	0	446,282	31,774,366	0	31,774,366
33	CUSTOMER ACCT. & COLLECTION				0	6,225,171				0	6,225,171		6,225,171

34	WARRANTY PROGRAM						0				0		0
35	ADMINISTRATIVE & GENERAL										0	7,762,210	7,762,210
36	TOTAL O & M	41,403,080	17,985,609	28,797,266	0	6,225,171	0	0	0	4,803,777	99,214,903	7,762,210	106,977,113
		41,403,079	17,985,609	28,797,266	0	6,225,171	0	0	0	4,803,777	99,214,901	7,762,210	106,977,112
		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 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) Excludes 100.0% of total automotive expenses which have been included with A&G.
(f) Includes Security, Operations Admin. & a portion of Auto Maint. Total prorated on basis of all other expense excluding power & chemicals.
(g) Split Total based on Distribution allocation between large and small mains.
(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 not longer a budget cost center.

Transmission & Distribution Mains										
Small Mains (Less than 36")	1,869,602	20,175,363	0	(g)	0	312,606	22,357,571		22,357,571
Large Mains (36" & Over)	428,039	4,619,082	0	(g)	0	71,571	5,118,692		5,118,692
Subtotal	2,297,641	24,794,445	0		0	384,177	27,476,263	0	27,476,263

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Treatment Plants	Load Control	Distribution	E&SS (a)	Customer Service	Automotive Maint. (b)	Building Maint. (c)	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										
All Other Costs		290,280					0	10,429	300,709	39,239
Subtotal	0	290,280	0	0	0	0	0	10,429	300,709	39,239
All Other Treatment Plants										
Power										
All Other Costs		829,602					0	29,805	859,407	112,143
Subtotal	0	829,602	0	0	0	0	0	29,805	859,407	112,143
Subtotal	0	1,119,882	0	0	0	0	0	40,234	1,160,116	151,382
Treatment										
Purification										
Baxter Treatment Plant										
Power										
Chemicals										
All Other Costs	5,949,197					0	0	594,486	6,543,683	853,874
Subtotal	5,949,197	0	0	0	0	0	0	594,486	6,543,683	853,874
All Other Treatment Plants										
Power										
Chemicals										
All Other Costs	11,643,710					0	0	685,198	12,328,908	1,608,778
Subtotal	11,643,710	0	0	0	0	0	0	685,198	12,328,908	1,608,778
Subtotal	17,592,907	0	0	0	0	0	0	1,279,684	18,872,591	2,462,652
Treated Water Power & Pumping										
Baxter Treatment Plant - L.S.										
Power										
All Other Costs		517,491					0	18,592	536,083	69,953
Subtotal	0	517,491	0	0	0	0	0	18,592	536,083	69,953
All Other Pumping										
Power										
All Other Costs		4,426,163					0	159,018	4,585,181	598,312
Subtotal	0	4,426,163	0	0	0	0	0	159,018	4,585,181	598,312
Subtotal	0	4,943,654	0	0	0	0	0	177,610	5,121,264	668,265
Total Supply & Treatment	17,592,907	6,063,536	0	0	0	0	0	1,497,528	25,153,971	3,282,299
DISTRIBUTION										
Filtered Water Storage		76,702	947,399			0		5,306	1,029,407	134,326
High Pressure Fire System		0	0			0		29	29	4
Transmission & Distribution Mains										
Small Mains (Less than 24")		1,338,352	16,530,921			0		92,566	17,961,839	2,343,806
Large Mains (24" & Over)		491,019	6,064,924			0		33,961	6,589,904	859,905
Subtotal	0	1,829,371	22,595,845	0	0	0	0	126,527	24,551,743	3,203,711
Fire Hydrants		116,184	1,435,075			0		8,035	1,559,294	203,470
Meters			2,406,549			0		13,476	2,420,025	315,785
Total Distribution	0	2,022,257	27,384,868	0	0	0	0	153,373	29,560,498	3,857,296
CUSTOMER ACCT. & COLLECTION					1,345,531			0	1,345,531	175,576

ADMINISTRATIVE & GENERAL								0	0	0
TOTAL O & M	17,592,907	8,085,793	27,384,868	0	1,345,531	0	0	1,650,901	56,060,000	7,315,171
	17,592,907	8,085,793	27,384,868	0	1,345,531	0	0	1,650,901	56,060,000	7,315,171
	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-2

(a) Total of this column is distributed based on distribution shown in column (4), Womallo-11.
(b) Total of this column is distributed based on distribution shown in column (6), Womallo-11.
(c) Total of this column is distributed based on distribution shown in column (7), Womallo-11.
(d) Total of this column is distributed based on distribution shown in column (8), Womallo-11.

Transmission & Distribution Mains										
Small Mains (Less than 36")			19,185,838			0		107,432	19,293,270	2,517,545
Large Mains (36" & Over)			4,392,533			0		24,597	4,417,130	576,384
Subtotal	0	0	23,578,371	0	0	0	0	132,029	23,710,400	3,093,929

Scenario 1

References:	TREATMENT PLANT:			PRIOR STUDY	
	1) Allocation of Personal Services, Materials & Supplies and Equipment (excluding Power & Chemicals)				
Wpltallo-4	Bucks Max Day	0.00	mgd x 1.64	14.90	mgd x 1.64
Wpltallo-4	Baxter Max Day	140.00	mgd x 1.29	146.00	mgd x 1.30
	Bucks County Share	0.00%		12.91%	
	2) Allocation of Power and Chemicals:				
	Bucks Ave Day	0.00	mgd	14.90	
	Baxter Ave Day Prod.	140.00	mgd	146.00	
	Bucks County Share	0.00%		10.21%	
	WATER CONVEYANCE SYSTEM:				
	(Load Control)				
	1) Raw Water Pumping Power (based on annual use)				
	Bucks Ave Day	0.00	mgd	14.90	
	Baxter Ave Day Prod.	140.00	mgd	146.00	
	Bucks County Share	0.00%		10.21%	
	2) Treated Water Pumping Power				
	Bucks Ave Day	0.00	mgd	14.90	
Wpltallo-4	Baxter Low Serv. Ave Day	48.00	mgd	48.00	
	Bucks County Share	0.00%		31.04%	
	3) All Other Expense				
	Raw Water				
	Bucks Max Day	0.00	mgd x 1.64	14.90	mgd x 1.64
	Baxter Max Day	140.00	mgd x 1.29	146.00	mgd x 1.30
	Bucks County Share	0.00%		12.91%	
	Treated Water				
	Bucks Max Day	0.00	mgd x 1.64	14.90	mgd x 1.64
	Baxter L S Max Hour	48.00	mgd x 1.70	48.00	mgd x 1.70
	Bucks County Share	0.00%		30.02%	

TRANSMISSION & DISTRIBUTION MAINS
Allocation of Mains O & M - 48" Supply Main

Womallo-7	Plant Investment - 48" Main =	0
Womallo-7	Plant Investment - 24" & Over Mains =	189,136,932
	Ratio 48" to 24" & Over =	0.000%
Womallo-7	Plant Investment - 36" & Over Mains =	131,265,916
	Ratio 48" to 36" & Over =	0.000%

Scenario 2 Allocation Basis: 0 New

References:				PRIOR STUDY	
	1) Raw Water Pumping Power, Treatment Plant Power, and Treated Water Pumping Power & Chemicals.				
	Bucks Annual Use	0.00	mgd	14.90	
Wpltallo-4	Total System Annual Prod.	182.73	mgd	260.00	
	Bucks County Share	0.00%		5.73%	
	2) Raw Water & Treatment Plant O & M (excluding Power & Chemicals).				
	Bucks Max Day	0.00	mgd x 1.64	14.90	mgd x 1.64
	Total System Max Day	251.89	mgd	260.00	mgd x 1.27
	Bucks County Share	0.00%		7.42%	
	3) Treated Water Pumping O & M (excluding Power) and Filtered Water Storage.				
	Bucks Max Day	0.00	mgd x 1.64	14.90	mgd x 1.64
	Total System Max Hour	251.89	mgd	260.00	mgd x 1.74
	Bucks County Share	0.00%		5.42%	
	4) Large Water Mains O & M.				
Plant-13	Contract Capacity	0.00	mgd	35.00	
Plant-13	System Treatment Cap.	422.42	mgd	546.00	
	Bucks County Share =	0.00%		6.41%	

Line No.		(1) Total Direct Expense	(2) Inter-Departmental Charges (a)	Finance Class 200 Customer	(3) Other Finance (b)	(4) Admin. & Human Resources (c)	(5) Planning & Engineering Watersheds	(6) Planning & Engineering BLS	(7) Planning & Engineering P&R	(8) DOT (d)	(9) Public Affairs (b)	(10) Indemnities	(11) WTP Sludge (e)	(12) Total Operation & Maint.
		$	$	$	$	$	$	$	$	$	$	$	$	$
		Womallo-11	Womallo-2			Womallo-12	Womallo-15	Womallo-15	Womallo-15	Womallo-15	Womallo-2	Womallo-2		
	SUPPLY & TREATMENT													
1	Source of Supply	0				0								
	Raw Water Power & Pumping													
	Baxter Treatment Plant													
2	Power	502,662												502,662
3	All Other Costs	393,627	23,248		26,717	39,239	31,582	30,900	22,470	57,735	9,632			635,150
4	Subtotal	896,289	23,248	0	26,717	39,239	31,582	30,900	22,470	57,735	9,632	0		1,137,812
	All Other Treatment Plants													
5	Power	2,458,245												2,458,245
6	All Other Costs	1,124,958	66,441		76,354	112,143	90,260	88,311	64,267	165,002	27,527			1,815,263
7	Subtotal	3,583,203	66,441	0	76,354	112,143	90,260	88,311	64,267	165,002	27,527	0		4,273,508
8	Subtotal	4,479,492	89,689	0	103,071	151,382	121,842	119,211	86,737	222,737	37,159	0		5,411,320
	Treatment													
	Purification													
	Baxter Treatment Plant													
9	Power	756,383												756,383
10	Chemicals	8,296,160												8,296,160
11	WTP Sludge												6,133,120	6,133,120
12	All Other Costs	10,328,153	609,985		701,003	853,874	828,673	810,777	713,255	1,514,872	252,724			16,613,316
13	Subtotal	19,380,696	609,985	0	701,003	853,874	828,673	810,777	713,255	1,514,872	252,724	0	6,133,120	31,798,979
	All Other Treatment Plants													
14	Power	877,404												877,404
15	Chemicals	8,715,859												8,715,859
16	WTP Sludge												4,818,880	4,818,880
17	All Other Costs	16,152,736	953,988		1,096,334	1,608,778	1,296,004	1,268,017	844,312	2,369,187	395,248			25,984,604
18	Subtotal	25,745,999	953,988	0	1,096,334	1,608,778	1,296,004	1,268,017	844,312	2,369,187	395,248	0	4,818,880	40,396,747
19	Subtotal	45,126,695	1,563,973	0	1,797,337	2,462,652	2,124,677	2,078,794	1,557,567	3,884,059	647,972	0	10,952,000	72,195,726
	Treated Water Power & Pumping													
	Baxter Treatment Plant - L.S.													
20	Power	619,084												619,084
21	All Other Costs	701,729	41,444		47,628	69,953	56,303	55,087	40,076	102,925	17,171			1,132,316
22	Subtotal	1,320,813	41,444	0	47,628	69,953	56,303	55,087	40,076	102,925	17,171	0		1,751,400
	All Other Pumping													
23	Power	4,286,394												4,286,394
24	All Other Costs	6,001,972	354,479		407,372	598,312	481,564	471,165	343,061	880,334	146,865			9,685,124
25	Subtotal	10,288,366	354,479	0	407,372	598,312	481,564	471,165	343,061	880,334	146,865	0		13,971,518
	Subtotal	11,609,179	395,923	0	455,000	668,265	537,867	526,252	383,137	983,259	164,036	0	Womallo-16	15,722,918
26	Total Supply & Treatment	61,215,366	2,049,585	0	2,355,408	3,282,299	2,784,386	2,724,257	2,027,441	5,090,055	849,167	0	10,952,000	93,329,964
	DISTRIBUTION													
27	Filtered Water Storage	1,107,657	65,419		75,180	134,326	88,872	86,953	132,620	162,465	27,104			1,880,596
28	High Pressure Fire System	1,096	65		74	4	88	86	0	161	27			1,601
	Transmission & Distribution Mains													
29	Small Mains (Less than 24")	19,327,118	1,141,468		1,311,791	2,343,806	1,550,699	1,517,211	2,316,000	2,834,786	477,213			32,820,091
30	Large Mains (24" & Over)	7,090,802	418,786		481,274	859,905	568,926	556,640	849,887	1,040,037	173,508			12,039,765
31	Subtotal	26,417,920	1,560,254	0	1,793,065	3,203,711	2,119,625	2,073,851	3,165,887	3,874,823	650,721	0	0	44,859,856
32	Fire Hydrants	1,677,814	99,092		113,878	203,470	134,618	131,711	41,340	246,092	36,763			2,684,778

33	Meters	2,569,879	151,778		174,425	315,785	206,193	201,740	337,081	376,935	62,883			4,396,699
34	Total Distribution	31,774,366	1,876,608	0	2,156,622	3,857,296	2,549,396	2,494,341	3,676,928	4,660,476	777,498	0	0	53,823,530
35	CUSTOMER ACCT. & COLLECTION	6,225,171	11,625,599	2,097,960	422,521	175,576	499,473	488,686	0	2,414,811	1,152,306			25,102,102
36	WARRANTY PROGRAM	0												0
37	ADMINISTRATIVE & GENERAL	7,762,210	458,439		526,844	0	622,796	609,346	671,553	1,138,515	3,588,695	2,405,000	0	17,783,398
38	TOTAL O & M	106,977,113	16,010,231	2,097,960	5,461,395	7,315,171	6,456,051	6,316,630	6,375,922	13,303,857	6,367,666	2,405,000	10,952,000	190,038,995
		106,977,112	16,010,231	2,097,960	5,461,395	7,315,171	6,456,051	6,316,630	6,375,922	13,303,857	6,367,666	2,405,000		190,038,994
		Agrees with Womallo-2	Agrees with footnote (a)		Agrees with Womallo-2	Agrees with Womallo-2	Agrees with Womallo-9	Agrees with Womallo-9	Agrees with Womallo-9	Agrees with Womallo-9	Agrees with Womallo-2	Agrees with Womallo-2		Agrees with Womallo-2

(a) WRB expense 100% Customer (Line 35), 40% Public Properties to Customer (Line 35), all other prorated on basis of direct expenses excluding power & chemicals, Cust. Acc't. and Collection, and WTP Sludge (Lines 11 and 16).

	Direct	Fringe Benefits	Total	% Retail	Retail	All		
	Womallo-2	Womallo-2		Only	Only	Other		45,572,590
								55,953,103
WRB Expense	5,465,708	3,236,803	8,702,511	100%	8,702,511	0		77,561,301
All Other Expenses								179,086,994
Public Properties	6,550,156	757,564	7,307,720	40%	2,923,088	4,384,632		
All Other	0	(0)	(0)	0%	0	(0)		
			16,010,231		11,625,599	4,384,632		

(b) Prorated on basis of direct expense excluding power & chemicals and WTP Sludge (Lines 11 and 16).
(c) Prorated on basis of direct expense for Class 100 from Womallo-12.
(d) Customer billing expense 100% Customer (Line 35), all other prorated on basis of direct expense excluding power & chemicals, Cust. Acc't. and Collection, and WTP Sludge (Lines 11 and 16).
(e) Prorate Water Treatment Plant Sludge costs to the Baxter Plant and All Other Treatment Plants on the basis of average day production from Wpltallo-4.

Transmission & Distribution Mains										
Small Mains (Less than 36")	22,357,571	1,320,448		1,517,475	2,517,545	5,199,408				32,912,447
Large Mains (36" & Over)	5,118,692	302,312		347,421	576,384	1,190,387				7,535,196
Subtotal	27,476,263	1,622,760		1,864,896	3,093,929	6,389,795	0	0		40,447,643

Line No.		(1) Total O & M Expense $ Womallo-14	(2) Scenario 1 Expense Allocated to Bucks County Power $ Womallo-14	(3) Chemicals $ Womallo-14	(4) All Other $ Womallo-14	(5) Total $	(6) Scenario 2 Expense Allocated to Bucks County Power $ Womallo-14	(7) Chemicals $ Womallo-14	(8) All Other $ Womallo-14	(9) Total $	(10) Scenario 3 (a) Expense Allocated to Bucks County Power $ (2)	(11) Chemicals $ (3)	(12) All Other $ (4)	(13) Total $	(14) 100% Scenario 1 / 0% Scenario 2 / 0% Scenario 3 Expense Allocated to Bucks County Power $ (2)	(15) Chemicals $ (3)	(16) All Other $ (4)	(17) Total $
	SUPPLY & TREATMENT																	
	Raw Water Power & Pumping																	
	Baxter Treatment Plant																	
1	Power	502,662	0			0	0			0	0			0	0	0	0	0
2	All Other Costs	635,150			0	0			0	0			0	0	0	0	0	0
3	Subtotal	1,137,812	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Other Treatment Plants																	
4	Power	2,458,245				0	0			0				0	0	0	0	0
5	All Other Costs	1,815,263				0			0	0				0	0	0	0	0
6	Subtotal	4,273,508	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Subtotal	5,411,320	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Treatment																	
	Purification																	
	Baxter Treatment Plant																	
8	Power	756,383	0			0	0			0	0			0	0	0	0	0
9	Chemicals	8,296,160		0		0		0		0		0		0	0	0	0	0
10	WTP Sludge	6,133,120			0	0			0	0			0	0	0	0	0	0
11	All Other Costs	16,613,316			0	0			0	0			0	0	0	0	0	0
12	Subtotal	31,798,979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Other Treatment Plants																	
13	Power	877,404					0			0					0	0	0	0
14	Chemicals	8,715,859						0		0					0	0	0	0
15	WTP Sludge	4,818,880							0	0					0	0	0	0
16	All Other Costs	25,984,604							0	0					0	0	0	0
17	Subtotal	40,396,747	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Subtotal	72,195,726	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Treated Water Power & Pumping																	
	Baxter Treatment Plant - L.S.																	
19	Power	619,084	0			0	0			0	0			0	0	0	0	0
20	All Other Costs	1,132,316			0	0			0	0			0	0	0	0	0	0
21	Subtotal	1,751,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	All Other Pumping																	
22	Power	4,286,394					0			0					0	0	0	0
23	All Other Costs	9,685,124							0	0					0	0	0	0
24	Subtotal	13,971,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Subtotal	15,722,918	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Total Supply & Treatment	93,329,964	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DISTRIBUTION																	
27	Filtered Water Storage	1,880,596							0	0					0	0	0	0
28	High Pressure Fire System	1,601													0	0	0	0
	Transmission & Distribution Mains																	
29	Small Mains (Less than 24")	32,820,091											Womallo-13*Womallo-14		0	0	0	0
30	Large Mains (24" & Over) (a)	12,039,765			0	0			0	0			0	0	0	0	0	0
31	Subtotal	44,859,856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Fire Hydrants	2,684,778													0	0	0	0
33	Meters	4,396,699													0	0	0	0
34	Total Distribution	53,823,530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	CUSTOMER ACCT. & COLLECTION	25,102,102			0	0			0	0			0	0	0	0	0	0
36	WARRANTY PROGRAM	0																
37	ADMINISTRATIVE & GENERAL	17,783,398																
38	TOTAL O & M	190,038,995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		190,038,994																
		Agrees with Womallo-14																

(a) Scenario 3 includes large mains cost based on 36" and larger mains.
(b) Not Used.

TABLE 17

ALLOCATION OF TEST YEAR WATER OPERATION AND MAINTENANCE EXPENSE TO FUNCTIONAL COST COMPONENTS TEST YEAR 2017

Line No.	Description	(1) Test Year Operation & Maintenance Expense	(2) Base	(3) Extra Capacity: Maximum Day	(4) Extra Capacity: Maximum Hour In Excess of Maximum Day	(5) Meters	(6) Customer Costs Billing	(7) Warranty	(8) Public Fire Protection: Direct Standard Pressure	(9) Public Fire Protection: High Pressure	(10) Wholesale Direct	(11) Allocation Basis: Base	(12) Allocation Basis: Max Day	(13) Allocation Basis: Max Hour	(14) Bucks County: Total	(15) Bucks County: Proration of Deposits and Other Revenue and Income	(16) Bucks County: Prorated Total	(17) Aqua PA
		$	$	$	$	$	$	$	$	$	$				$	$	$	$
		Womallo-15									Womallo-15, Womallo-18				(10) - (17)			Womallo-18
	Raw Water Pumping																	
1	Purchased Power	2,961,000	2,773,000	146,000							42,000	95.00%	5.00%		0	0	0	42,000
2	Other	2,450,000	1,856,000	554,000							40,000	77%	23%		0	0	0	40,000
3	Total Raw Water Pumping	5,411,000	4,629,000	700,000							82,000					0		82,000
	Purification and Treatment																	
	Power and Pumping (a)																	
4	Purchased Power	4,905,000	4,352,000	242,000	242,000						69,000	90.00%	5.00%	5.00%	0	0	0	69,000
5	Other	10,817,000	6,171,000	1,489,000	2,979,000						178,000	58%	14%	28%	0	0	0	178,000
	Treatment																	
6	Purchased Power	1,634,000	1,450,000	81,000	80,000						23,000	90.00%	5.00%	5.00%	0	0	0	23,000
7	Chemicals	17,012,000	16,772,000								240,000	100.00%			0	0	0	240,000
	Other																	
	Other	42,598,000	32,260,000	9,636,000							702,000	77%	23%		0	0	0	702,000
	Water Treatment Plant Sludge	10,952,000	10,759,000								193,000	100.00%			0	0	0	193,000
8	Other (b)	53,550,000	43,019,000	9,636,000							895,000				0	0	0	895,000
9	Total Purification and Treatment	87,918,000	71,764,000	11,448,000	3,301,000						1,405,000							1,405,000
	Transmission and Distribution																	
10	Mains	44,860,000	25,937,000	6,261,000	12,521,000						141,000	58%	14%	28%	0	0	0	141,000
11	Meters	4,397,000				4,397,000					0	100% Meters			0	0	0	0
12	Hydrants	2,685,000							2,685,000		0	100% Standard Pressure Fire			0	0	0	0
13	Filtered Water Storage	1,881,000	1,078,000	260,000	521,000						22,000	58%	14%	28%	0	0	0	22,000
14	High Pressure Fire System	2,000								2,000	0	100% High Pressure Fire			0	0	0	0
15	Total Transmission and Distribution	53,825,000	27,015,000	6,521,000	13,042,000	4,397,000			2,685,000	2,000	163,000				0	0	0	163,000
16	Customer Accounting and Collection	25,102,000					25,102,000				0	100% Billing			0	0	0	0
17	Warranty Program	0						0										
18	Subtotal	172,256,000	103,408,000	18,669,000	16,343,000	4,397,000	25,102,000	0	2,685,000	2,000	1,650,000				0	0	0	1,650,000
19	Administrative and General	17,783,000	8,879,000	2,401,000	2,114,000	580,000	3,312,000	0	354,000	0	143,000	Line 17 less power, chem., treatment plant sludge			0	0	0	143,000
20	Subtotal Water Operating Expense	190,039,000	112,287,000	21,070,000	18,457,000	4,977,000	28,414,000	0	3,039,000	2,000	1,793,000				0	0	0	1,793,000
21	Residual Fund Deposit	6,071,000	3,587,000	673,000	590,000	159,000	908,000	0	97,000	0	57,000	Line 19			0			57,000
22	Deposit (from) to RSF	1,343,000	794,000	149,000	130,000	35,000	201,000	0	21,000	0	13,000	Line 19			0			13,000
23	Total Water Operating Expense	197,453,000	116,668,000	21,892,000	19,177,000	5,171,000	29,523,000	0	3,157,000	2,000	1,863,000				0			1,863,000
24	Adjustment for Wholesale Contracts	0	0	0	0	0	0	0	0	0	0	Not Required for current analysis			0			0
	Other Operating Revenue														Power & Chemicals ==>		0	
25	Miscellaneous	4,522,000	2,673,000	501,000	439,000	118,000	676,000	0	72,000	0	43,000	Line 19			0			43,000
26	All Other	7,312,435	4,362,435	818,000	717,000	193,000	1,104,000	0	118,000	0	0	Line 19 less wholesale			0			0
27	Other Operating Revenue	11,834,435	7,035,435	1,319,000	1,156,000	311,000	1,780,000	0	190,000	0	43,000				0			43,000
28	Non-Operating Income	232,000	136,000	26,000	23,000	6,000	35,000	0	4,000	0	2,000	Line 19			0			2,000
29	Total Operating Expense Less Other Operating Revenue	185,386,565	109,496,565	20,547,000	17,998,000	4,854,000	27,708,000	0	2,963,000	2,000	1,818,000				0			1,818,000
			59.1%	11.1%	9.7%	2.6%	14.9%	0.0%	1.6%	0.0%	1.0%							
															0			

(a) Includes booster pumping.
(b) Includes wastewater utility cost of treating water treatment plant sludge of $10,952,000.

Line 20 Less power, chemicals, and WTP sludge	134,792,000	67,302,000	18,200,000	16,021,000	4,397,000	25,102,000	0	2,685,000	2,000	1,083,000
PREVIOUS STUDY (FY 2008)	151,403,000	84,671,000	16,555,000	12,463,000	3,561,000	25,187,000	0	2,509,000	0	6,457,000
		55.9%	10.9%	8.2%	2.4%	16.6%	0.0%	1.7%	0.0%	4.3%

CHECK OF TOTAL O&M PRIOR TO CREDIT FOR OTHER REVENUE:

Subtotal Direct and Allocated Operations O&M from TYOME		77,561,000	Womallo-2
Subtotal Fringe Benefits from TYOME		45,573,000	Womallo-2
Subtotal Interdepartmental, Finance, A&HR, etc. from TYOME		55,953,000	Womallo-2
Plus Water Treatment Plant Sludge		10,952,000	Above
		190,039,000	Agrees with line 20
Total Power & Chemicals	26,512,000		

	Total Test Year Water Use Mcf	Average Daily Water Use Mcf/day	Maximum Day Extra Capacity: Capacity Factor %	Maximum Day Extra Capacity: Total Capacity Mcf/day	Maximum Day Extra Capacity: Extra Capacity (a) Mcf/day	Maximum Hour Extra Capacity: Capacity Factor %	Maximum Hour Extra Capacity: Total Capacity Mcf/day	Maximum Hour Extra Capacity: Extra Capacity (b) Mcf/day				Approach	Average Day mgd	Average Day w/ losses mgd	Average Day mgd	Max Day mgd	Max Day mgd	Max Hour Mcf/day	Max Hour Mcf/day
TREATMENT PLANT:																			
1) Allocation of Personal Services, Materials & Supplies and Equipment (excluding Power & Chemicals)																			
Retail	6,133,100	16,800		33,120	16,320		55,810	22,690	Units-2				125.66			247.74		417.46	
Bucks County	0	0		0	0		0	0	Womallo-13	Wpltallo-4			0.00		0.00	0.00	0.00	0.00	35.00
Aqua PA	110,000	301		555	254		663	108	Retcos-6				2.25		2.25	4.15	4.15	4.96	4.96
Total	6,243,100	17,101		33,675	16,574		56,473	22,798					127.91	182.73	250.00	251.89	314.86	422.42	546.00
	1.762%	1.760%		1.648%	1.533%		1.174%	0.474%											
		0.000%		0.000%			0.000%					Bucks	0.000%	0.000%	0.00%	0.00%	0.00%	0.00%	6.41%
2) Allocation of Power and Chemicals:												Aqua	1.762%	1.23%	0.90%	1.65%	1.32%	1.17%	0.91%
Retail	6,133,100	16,800		33,120	16,320		55,810	22,690	Units-2						36.81%		25.00%		29.26%
Bucks County	0	0							Womallo-13										
Aqua PA		1.408% See Box 2 on Retcos-6																	
WATER CONVEYANCE SYSTEM:																			
(Load Control)																			
1) Raw Water Pumping Power (based on annual use)																			
Retail	6,133,100	16,800		33,120	16,320		55,810	22,690	Units-2										
Bucks County																			
Aqua PA																			
2) Treated Water Pumping Power																			
Retail	6,133,100	16,800		33,120	16,320		55,810	22,690	Units-2										
Bucks County																			
Aqua PA																			
3) All Other Expense																			
Raw Water																			
Retail	6,133,100	16,800		33,120	16,320		55,810	22,690	Units-2										
Bucks County																			
Aqua PA																			
Treated Water																			
Retail	6,133,100	16,800		33,120	16,320		55,810	22,690	Units-2										
Bucks County																			
Aqua PA																			

AQUA PA
ALLOCATION OF TEST YEAR WATER OPERATION AND MAINTENANCE EXPENSE
TO FUNCTIONAL COST COMPONENTS
TEST YEAR 2017

Line No.	Description	(1) Test Year Operation & Maintenance Expense $	(2) Allocable	(3)	(4) Aqua PA Total $		Adjustment	(5) Aqua PA Total $	USE Aqua PA Total $
		Womallo-16		Womallo-17	(2) x (3)				
	Raw Water Pumping								
1	Purchased Power	2,961,000	2,961,000	1.41%	42,000			42,000	
2	Other	2,450,000	2,450,000	1.65%	40,000			40,000	
3	Total Raw Water Pumping	5,411,000	5,411,000	1.52%	82,000			82,000	
	Purification and Treatment								
	Power and Pumping (a)								
4	Purchased Power	4,905,000	4,905,000	1.41%	69,000			69,000	
5	Other	10,817,000	10,817,000	1.65%	178,000			178,000	
	Treatment								
6	Purchased Power	1,634,000	1,634,000	1.41%	23,000			23,000	
7	Chemicals	17,012,000	17,012,000	1.41%	240,000			240,000	
	Other								
	Other	42,598,000	42,598,000	1.65%	702,000			702,000	
	Water Treatment Plant Sludge	10,952,000	10,952,000	1.76%	193,000			193,000	
8	Other (b)	53,550,000	53,550,000	1.67%	895,000		0	895,000	0
9	Total Purification and Treatment	87,918,000	87,918,000	1.60%	1,405,000		0	1,405,000	0
	Transmission and Distribution								
10	Mains	44,860,000	12,040,000	1.17%	141,000			141,000	
11	Meters	4,397,000	-					0	
12	Hydrants	2,685,000	-					0	
13	Filtered Water Storage	1,881,000	1,881,000	1.17%	22,000			22,000	
14	High Pressure Fire System	2,000	-					0	
15	Total Transmission and Distribution	53,825,000	13,921,000	1.17%	163,000		0	163,000	0
16	Customer Accounting and Collection	25,102,000						0	
17	Warranty Program	0							
18	Subtotal	172,256,000	107,250,000	1.54%	1,650,000		0	1,650,000	0
19	Administrative and General	17,783,000	9,207,000	1.55%	143,000			143,000	
20	Subtotal Water Operating Expense	190,039,000	116,457,000	1.54%	1,793,000		0	1,793,000	0
21	Adjustment for Wholesale Contracts	0	0		0			0	
22	Residual Fund Deposit	6,071,000	3,720,000	1.54%	57,000			57,000	
23	Deposit (from) to RSF	1,343,000	823,000	1.54%	13,000			13,000	
24	Total Water Operating Expense	197,453,000	121,000,000	1.54%	1,863,000		0	1,863,000	0
	Other Operating Revenue								
	Miscellaneous	4,522,000	4,522,000	0.95%	43,000	Womallo-16		43,000	
	All Other	7,312,435	7,312,435	0.00%	0	Womallo-16		0	
25	Other Operating Revenue	11,834,435	11,834,435	0.36%	43,000		0	43,000	0
26	Non-Operating Income	232,000	232,000	0.86%	2,000	Womallo-16		2,000	
27	Total Operating Expense Less Other Operating Revenue	185,386,565	108,933,565	1.67%	1,818,000		0	1,818,000	0
		151,403,000	PREVIOUS STUDY		2,124,000				

(a) Includes booster pumping.
(b) Includes wastewater utility cost of treating water treatment plant sludge of $10,952,000.0.

Line 18	Less power, chemicals, and WTP sludge	134,792,000	69,786,000	1.55%	1,083,000			1,083,000

WCOS15_17.XLS

RETCOS

Philadelphia Water Department (PWD)
Water Utility Financial Planning & Rate Design

Description of Worksheet:
This worksheet allocates the retail cost of service to retail customer classes.

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
RetcInd	Index	Retcos-1	
UCOS	Unit Cost of Service	Retcos-2	TABLE W-15
ACOS	Allocated Cost of Service to Customer Types	Retcos-3	TABLE W-16
ADJCOS	Adjusted Cost of Service to Customer Types	Retcos-4	TABLE W-17
BCPC	Bucks County Proposed Charges	Retcos-5	
PSWCRate	Aqua PA Proposed Rates	Retcos-6	TABLE W-13

TABLE 18

TEST YEAR UNIT COSTS OF WATER SERVICE FOR RETAIL CUSTOMERS
TEST YEAR 2017

Reference	Line No.	Description	(1) Total Test Year Retail Costs $	(2) Base	(3) Extra Capacity: Maximum Day	(4) Extra Capacity: Max Hour In Excess of Max Day	(5) Customer Costs: Meters	(6) Customer Costs: Billing	(7) Warranty Program	(8) Direct Public Fire Protection
		Total Retail Customer Units of Service								
Units-2	1	Number		6,133,100	16,320	22,690	617,831	6,304,745	476,036	
	2	Units		Mcf	Mcf/day	Mcf/day	Equiv. Meters	Equiv. Bills	Eq. Services	Total
		Operating Expense								
Womallo-16	3	Total Expense - $	183,568,565	109,496,565	20,547,000	17,998,000	4,854,000	27,708,000	0	2,965,000
Line 4 / Line 1	4	Unit Expense - $/Unit		17.8534	1,259.0074	793.2129	7.8565	4.3948	0.0000	
		Depreciation Expense								
Wpltallo-5	5	Total Expense - $	33,538,000	17,967,000	4,693,000	5,128,000	5,491,000			259,000
Line 5 / Line 1	6	Unit Expense - $/Unit		2.9295	287.5613	226.0026	8.8875			
		Plant Investment								
Wpltallo-2	7	Total Investment - $	1,413,859,000	845,468,000	219,708,000	254,608,000	83,791,000			10,284,000
Line 6 / Line 1	8	Unit Investment - $/Unit		137.8533	13,462.5000	11,221.1547	135.6212			
		Unit Return on Investment								
Line 10 x Line 1	9	Total Return - $	47,101,000	28,166,000	7,319,000	8,482,000	2,791,000			343,000
Line 8 x 3.3314%	10	Inside City - $/Unit (a)		4.5924	448.4897	373.8215	4.5181			
		Total Unit Costs of Service								
Lines 4 + 6 + 10	11	Inside City - $/Unit		25.3753	1,995.0584	1,393.0370	21.2621	4.3948	0.0000	
		Total Unit Costs of Service								
		Inside City - $/Unit/Bill		25.3753	1,995.0584	1,393.0370	1.7718	4.3948	0.0000	
	12	Total Retail Cost of Service	264,207,565	155,629,565	32,559,000	31,608,000	13,136,000	27,708,000	0	3,567,000

(a) Retail rate of return = Box 1 3.3314%

Mcf - thousand cubic feet

BOX 1 - INSIDE CITY RATE OF RETURN		$	
Total Test Year Capital Costs		81,891,086	
Less Total Test Year Depr. Expense	41.3%	33,826,000	Wpltallo-5
Less Wholesale Return	1.2%	964,000	Retcos-4
Inside City Return	57.5%	47,101,086	
Investment Allocated to Retail Customers		1,413,859,000	Wpltallo-2
INSIDE CITY RATE OF RETURN: ($47,101,086 / $1,413,859,000) =		3.3314%	

CALCULATION OF UNIT COSTS FOR FIRE PROTECTION:

		Total Private Fire Customer Units of Service							
Units-2	13	Number		11,100	190	310	5,335	454,321	
	14	Units		Mcf	Mcf/day	Mcf/day	Eq. Meters	Eq. Bills	
Line 11	15	$/Unit		25.3753	1995.0584	1393.0370	21.2621	4.3948	
Line 12 x Line 14	16	Total Expense		281,666	379,061	431,841	113,433	1,996,650	3,202,652
Retcos-4	17	Multiplied by Adjustment Factor							2.32%
	18	Total Cost		288,208	387,866	441,872	116,068	2,043,028	3,277,042
		Total Cost per equiv 6" meter			72.70	82.83	21.76	4.50	614.2534
		Total Cost per equiv 6" meter per bill			6.06	6.90	1.81	31.48	51.19

945,806
177.28
14.77

TABLE 19

ALLOCATED COST OF SERVICE TO RETAIL CUSTOMER CLASSES
TEST YEAR 2017

Reference	Line No.	Description	(1) Total Allocated Cost of Service $	(2) Base $	(3) Extra Capacity: Max Day $	(4) Extra Capacity: Max Hour In Excess of Max Day $	(5) Customer Costs: Meters $	(6) Customer Costs: Billing $	(7) Customer Costs: Warranty Program $	(8) Direct Public Fire Protection $			
Retcos-2	1	Total Retail Unit Costs of Service		25.3753	1,995.0584	1,393.0370	21.2621	4.3948	0.0000				
		Residential											
Units-2	2	Units of Service		3,169,700	8,680	13,890	431,503	4,928,471	409,808				
Line 1 x Line 2	3	Allocated Cost of Service -	147,936,000	80,435,000	17,317,000	19,349,000	9,175,000	21,660,000	0				
		CHECK	147,936,000	80,432,088									
		Senior Citizens											
Units-2	4	Units of Service		111,700	310	500	20,208	242,316	20,194				
Line 1 x Line 4	5	Allocated Cost of Service -	5,644,000	2,834,000	618,000	697,000	430,000	1,065,000	0		373,750	1,037,250	1,411,000
		Commercial											
Units-2	6	Units of Service		1,264,700	2,770	3,110	90,839	478,441	35,310				
Line 1 x Line 6	7	Allocated Cost of Service -	45,984,000	32,092,000	5,526,000	4,332,000	1,931,000	2,103,000	0				
		Industrial											
Units-2	8	Units of Service		91,200	150	100	5,413	17,793	1,152				
Line 1 x Line 8	9	Allocated Cost of Service -	2,945,000	2,314,000	299,000	139,000	115,000	78,000	0				
		Public Utilities											
Units-2	10	Units of Service		9,700	20	10	1,193	2,781	130				
Line 1 x Line 10	11	Allocated Cost of Service -	337,000	246,000	40,000	14,000	25,000	12,000	0				
		Housing Authority											
Units-2	12	Units of Service		171,000	420	590	9,514	75,275	5,876				
Line 1 x Line 15	13	Allocated Cost of Service -	6,532,000	4,339,000	838,000	822,000	202,000	331,000	0		26,650	299,950	326,600
		Charities & Schools											
		Charities & Schools											
Units-2	14	Units of Service		199,700	440	500	21,984	55,858	2,293				
Line 1 x Line 16	15	Allocated Cost of Service -	7,354,000	5,067,000	878,000	697,000	467,000	245,000	0		178,000	1,660,500	1,838,500
		Hospital/University											
Units-2	16	Units of Service		291,200	640	440	11,460	20,742	244				
Line 1 x Line 18	17	Allocated Cost of Service -	9,614,000	7,389,000	1,277,000	613,000	244,000	91,000	0		83,750	2,319,750	2,403,500
		Hand Billed											
	18	Units of Service		567,000	1,240	1,400	6,346	12	0				
	19	Allocated Cost of Service -	18,947,000	14,388,000	2,474,000	1,950,000	135,000	0	0				
		Scheduled (Flat Rate)											
Units-2	20	Units of Service		0	0	0	2	24	2				
Line 1 x Line 20	21	Allocated Cost of Service -	0	0	0	0	0	0	0				
		City Leased Properties											
Units-2	22	Units of Service		8,600	20	10	1,126	2,200	60				
Line 1 x Line 22	23	Allocated Cost of Service -	306,000	218,000	40,000	14,000	24,000	10,000	0				
		City											
Units-2	18	Units of Service		237,500	520	360	12,908	26,511	968				
Line 1 x Line 24	19	Allocated Cost of Service -	7,956,000	6,027,000	1,037,000	501,000	274,000	117,000	0				
		Public Fire Protection											
		Standard Pressure											
Units-2	20	Units of Service		0	920	1,470	0	0	0				
Line 1 x Line 26	21	Allocated Cost of Service -	7,448,000	0	1,835,000	2,048,000	0	0	0	3,565,000			
		High Pressure											
	22	Units of Service											
Line 1 x Line 28	23	Allocated Cost of Service -	2,000	0	0	0	0	0	0	2,000			

		Private Fire Protection															
Units-2	24	Units of Service		11,100	190	310	5,335	454,321	0								
Line 1 x Line 30	25	Allocated Cost of Service -	3,203,000	282,000	379,000	432,000	113,000	1,997,000	0								
	26	Total Retail Cost of Service -	264,207,565	141,243,000	30,084,000	29,658,000	13,000,000	27,709,000	0	3,567,000	662,150	5,317,450	5,979,600				
			Agrees with Retcos-2								40,709,000	223,498,565	264,207,565	1.6265%	2.3792%	2.26%	
		CHECK	245,261,000	245,261,000							40,046,850	218,181,115	258,227,965	1.6534%	2.4372%	2.32%	

Housing Authority discount: 0.05
Senior Citizens, "6 cent" charities, "N" charities discount: 0.25

TABLE W-17

WATER: TEST YEAR ADJUSTED COST OF SERVICE
TEST YEAR 2017

Line No.	Customer Class	(1) Allocated Cost of Service $	(2) Reallocation of HP Fire System $	(3) Discount $	(4) Cost of Service w Discount $	(5) Recovery of Discount $	(6) Adjusted Cost of Service $	(7) Percent Change %	Recovery of Discount: Residential $	Non-Res $	All $	Total $	Adjusted Cost of Service $	Percent Change %
		Retcos-3		((1)+(2)) x 25.009	(1) - (2)		(2)+(3)+(4)	[(5)-(1)]/(1)						
1	Residential	147,936,000	2,000		147,938,000	3,426,000	151,364,000	2.32%			995,699	995,699	148,933,699	0.67%
2	Senior Citizens	5,644,000	0	1,411,000	4,233,000	98,000	4,331,000	-23.26%			28,490	28,490	4,261,490	-24.50%
3	Commercial	45,984,000	0		45,984,000	1,065,000	47,049,000	2.32%		1,839,690	309,496	2,149,185	48,133,185	4.67%
4	Industrial	2,945,000	0		2,945,000	68,000	3,013,000	2.31%		117,821	19,821	137,642	3,082,642	4.67%
5	Public Utilities	337,000			337,000	8,000	345,000	2.37%		13,482	2,268	15,751	352,751	4.67%
6	Housing Authority	6,532,000	0	327,000	6,205,000	144,000	6,349,000	-2.80%		248,244	41,763	290,007	6,495,007	-0.57%
	Charities and Schools													
7	Charities & Schools	7,354,000	0	1,839,000	5,515,000	128,000	5,643,000	-23.27%		220,640	37,119	257,758	5,772,758	-21.50%
8	Hospital/University	9,614,000	0	2,404,000	7,210,000	167,000	7,377,000	-23.27%		288,452	48,527	336,979	7,546,979	-21.50%
9	Subtotal Charities and Schools	16,968,000	0	4,243,000	12,725,000	295,000	13,020,000	-23.27%	0	509,091	85,646	594,737	13,319,737	-21.50%
10	Hand Billed	18,947,000			18,947,000	439,000	19,386,000			758,016	127,523	885,539	19,832,539	4.67%
11	Scheduled (Flat Rate)	0			0	0	0	0.00%		0	0	0	0	0.00%
12	City Leased Properties	306,000			306,000	7,000	313,000	2.29%		12,242	2,060	14,302	320,302	4.67%
13	City	7,956,000	0		7,956,000	184,000	8,140,000	2.31%		318,297	53,548	371,845	8,327,845	4.67%
	Fire Protection													
14	Private	3,203,000			3,203,000	74,000	3,277,000	2.31%		128,143	21,558	149,701	3,352,701	4.67%
	Public													
15	Standard Pressure	7,448,000			7,448,000	173,000	7,621,000	2.32%		297,973	50,129	348,102	7,796,102	4.67%
16	High Pressure (a)	2,000	(2,000)		0	0	0	-100.00%		0	0	0	0	-100.00%
17	Subtotal Public Fire Protection	7,450,000	(2,000)	0	7,448,000	173,000	7,621,000	2.30%	0	297,973	50,129	348,102	7,796,102	4.65%
18	Subtotal Retail Service	264,208,000	0	5,981,000	258,227,000	5,981,000	264,208,000	0.00%	0	4,243,000	1,738,000	5,981,000	264,208,000	0.00%
19	Wholesale	3,070,000			3,070,000		3,070,000	0.00%						
20	Total System	267,278,000	0	5,981,000	261,297,000	5,981,000	267,278,000	0.00%	0	4,243,000	1,738,000	5,981,000	264,208,000	

Cost of Service Check 267,277,338
Difference (662) Agrees with total system above

(a) O&M costs reallocated to Retail customers.

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

BOX 1 - BUCKS COUNTY COS

Reference:		TY $	TY $/mgd	Aqua PA
	Operating Expense	Womallo-16		
Womallo-16	Commodity Charge - Based on Avg.	0	0	
	Demand Charge - Based on Max. Day	0	0	
Womallo-16	Customer Cost	0		
Womallo-16	Main Maintenance	0		
Womallo-16	A&G (included in Demand Charge)			
Womallo-16	Water Treatment Plant Sludge	0		Womallo-18
Womallo-16	Subtotal	0		1,818,000
	Capital Costs	Wpltallo-5		Wpltallo-5
Wpltallo-5	Depreciation Expense			288,000
	Return on Investment			Wpltallo-2
Wpltallo-2	Allocated Investment Wpltallo-2==>			12,857,000
Plant-15	Return @ #DIV/0! Plant-15==>	0		964,000
Total Allocated Cost of Service		0	0	3,070,000

TABLE 20

SUMMARY OF TEST YEAR COSTS OF WATER SERVICE
ALLOCATED TO BUCKS COUNTY
AND PROPOSED RATES
TEST YEAR 2017

COST OF SERVICE	
Operating Expense	0
Depreciation Expense	0
Return on Investment (a)	0
Total Allocated Cost of Service	0

PROPOSED RATES

Commodity Charge ($/Mcf)	#DIV/0!
Demand Charge ($/Mgd of maximum demand)	0
Lump Sum Payment ($/year)	0

#VALUE!

Mcf - thousand cubic feet
Mgd - thousand gallons per day

Proposed rates are inflated 0.00 % due to new rates being in place 1.0 months of an effective 1.0 month test year.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				TY Rates			
Fiscal Year	Annual Usage Mcf Wpltallo-4	Annual Usage Mgd Col. (1)	Max. Hr. Usage Mgd Wpltallo-4	Fixed Charge $ Retcos-4	Commodity Charge $ Col. (2)* $0 /mgd	Demand Charge $ Col. (3)* $0 /mgd	Total Charge $
2013	535,749	11.0	0.0	0	0	0	0
2014	535,000	11.0	0.0	0	0	0	0
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

Aqua PA Rate

Raw Water Pumping Purchased Power	42,000
Purification & Treatment Power & Pump Purchased Powe	69,000
Treatment Purchased Power	23,000
Chemicals	240,000
Total Variable O&M	374,000
Volume - mgd	2.3
Volume (1,000 gal)	822,856
Commodity Charge	0.455
Total O&M	1,818,000
Variable O&M	(374,000)
Fixed O&M	1,444,000
Capital	
Depr	287,000
Return	964,000
Demand - mgd	4.15
Total Fixed - $/yr	2,695,000
Total Fixed - $/mo	224,583
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

	FY 2016	FY 2017	FY 2018	FY 2019
	1	2	3	4
Average Day - mgd	6.50	6.50	6.50	6.50
Max Day - mgd	9.50	9.50	9.50	9.50
Max Hour - mgd	11.25	11.25	11.25	11.25

Aqua PA Use and Demand Assumptions
Projected Demand (Current Use)

	FY 2016	FY 2017	FY 2018	FY 2019
	1	2	3	4
Average Day - mgd	2.25	2.25	2.25	2.25
Max Day - mgd	4.15	4.15	4.15	4.15
Max Hour - mgd	4.96	4.96	4.96	4.96

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 & Chemicals	26,512,000	
Total Metered Water Usage	127.92	mgd
Water Loss allowance	20%	
Commodity Charge =	0.454	

WCOS15_17.XLS

RATES

Philadelphia Water Department (PWD)

Water Utility dinancial Planning & Rate Design

Description of Worksheet:
This worksheet develops retail water volume COS rates.

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	

TEST YEAR ADJUSTED COS BY CLASS

	TY Adjusted COS $ Retcos-4	TY Usage Mcf Units-2
Residential	151,364,000	3,169,700
Senior Citizens	4,331,000	111,700
Commercial	47,049,000	1,264,700
Industrial	3,013,000	91,200
Public Utilties	345,000	9,700
Housing Authority	6,349,000	171,000
Charities and Schools	5,643,000	199,700
Hospital/University	7,377,000	291,200
Hand Billed	19,386,000	567,000
Scheduled (Flat Rate)	0	0
City Leased	313,000	8,600
City	8,140,000	237,500
Private Fire Protection	3,277,000	11,100
Public Fire Protection	7,621,000	0
Total	264,208,000	6,133,100

CHOOSE OPTION 1

TEST YEAR UNIT CUSTOMER COSTS-USED

	COS Unit Cost $ Retcos-2	Adjust. Factor (1) % Retcos-4	Adjusted Unit Cost $
Non-Subsidized Residential Customers			
Cost per Equiv Meter per Bill	1.7718	2.3172	1.8129
Cost per Equiv Bill	4.3948	2.3172	4.4966
Cost per Equiv Service	0.0000	2.3172	0.0000
Non-Subsidized Non-Residential Customers			
Cost per Equiv Meter per Bill	1.7718	2.3160	1.8128
Cost per Equiv Bill	4.3948	2.3160	4.4966
Cost per Equiv Service	0.0000	2.3160	0.0000
Subsidized Residential Customers - Senior Citizens			
Cost per Equiv Meter per Bill	1.7718	(23.2636)	1.3596
Cost per Equiv Bill	4.3948	(23.2636)	3.3724
Cost per Equiv Service	0.0000	(23.2636)	0.0000
Subsidized Non-Res Customers - Hospitals & Charities			
Cost per Equiv Meter per Bill	1.7718	(23.2673)	1.3595
Cost per Equiv Bill	4.3948	(23.2673)	3.3722
Cost per Equiv Service	0.0000	(23.2673)	0.0000
Subsidized Customers - PHA			
Cost per Equiv Meter per Bill	1.7718	(2.8016)	1.7222
Cost per Equiv Bill	4.3948	(2.8016)	4.2717
Cost per Equiv Service	0.0000	(2.8016)	0.0000
Fire Meters (Private)			
$/Equiv 6" Meter/Bill	51.1900	<-- Includes Adj. Factor	
Cost per Equiv Bill	17.9864	<-- Includes Adj. Factor	
All Other Costs/Equiv Meter/Bill	0.0000	<-- Includes Adj. Factor	

(1) To account for Senior Citizens and Charities and Schools paying 75 % of COS rates.

EXISTING DISCOUNT RECOVERY -SPREAD ACROSS ALL CLASSES

	Adjust. Factor (1) % Retcos-4
Non-Subsidized Residential Customers	
Cost per Equiv Meter per Bill	2.3172
Cost per Equiv Bill	2.3172
Cost per Equiv Service	2.3172
Non-Subsidized Non-Residential Customers	
Cost per Equiv Meter per Bill	2.3160
Cost per Equiv Bill	2.3160
Cost per Equiv Service	2.3160
Subsidized Residential Customers - Senior Citizens	
Cost per Equiv Meter per Bill	(23.2636)
Cost per Equiv Bill	(23.2636)
Cost per Equiv Service	(23.2636)
Subsidized Non-Res Customers - Hospitals & Charities	
Cost per Equiv Meter per Bill	(23.2673)
Cost per Equiv Bill	(23.2673)
Cost per Equiv Service	(23.2673)
Subsidized Customers - PHA	
Cost per Equiv Meter per Bill	(2.8016)
Cost per Equiv Bill	(2.8016)
Cost per Equiv Service	(2.8016)

ALTERNATIVE DISCOUNT RECOVERY-CLASS SPECIFIC

	Adjust. Factor (2) % Retcos-4
Non-Subsidized Residential Customers	
Cost per Equiv Meter per Bill	0.6744
Cost per Equiv Bill	0.6744
Cost per Equiv Service	0.6744
Non-Subsidized Non-Residential Customers	
Cost per Equiv Meter per Bill	4.6738
Cost per Equiv Bill	4.6738
Cost per Equiv Service	4.6738
Subsidized Residential Customers - Senior Citizens	
Cost per Equiv Meter per Bill	(24.4952)
Cost per Equiv Bill	(24.4952)
Cost per Equiv Service	(24.4952)
Subsidized Non-Res Customers - Hospitals & Charities	
Cost per Equiv Meter per Bill	(21.5008)
Cost per Equiv Bill	(21.5008)
Cost per Equiv Service	(21.5008)
Subsidized Customers - PHA	
Cost per Equiv Meter per Bill	(0.5663)
Cost per Equiv Bill	(0.5663)
Cost per Equiv Service	(0.5663)

EQUIV. PRIVATE FIRE METER AND BILL FACTORS (6" BASE):

		5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"
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	0.2	0.3	0.6	1.0	1.4	2.1	2.9	3.3

Line No.	Customer Class	Meter Size	TY COS $ Rates-2	TY Bills Units-3	COS Monthly Service Charge $ Rates-2 Units-3 Units-4	USE $	Service Charge Revenue $ (3) x (5)	Balance of COS to be Recovered through Volume Charge $ (2) - (6)	Volume Charge / Usage: Rate Block 0 - 2	Rate Block 3 - 100	Rate Block 101 - 2,000	Rate Block >2,000	Total Rates-2	Total Billings $ (6) + (13)	Percent Billings of COS $ (14) / (2)
									39.05	31.54	28.95	21.98			
	GENERAL SERVICE RATES								Rate Block Volume Charge $/Mcf	39.70	34.66	26.97	26.19		
1	Residential	R = 5/8		4,855,422	6.31	6.31	30,637,713		Percent of Total Usage in Each Block						
2		Z = 3/4		402	7.22	7.22	2,902		%	84.70%	14.11%	1.19%	0.00%		
3		Q = 1		27,852	9.48	9.48	264,037								
4		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block						
5		P = 1-1/2		7,534	14.46	14.46	108,942		Mcf	2,684,878	447,241	37,581	0	3,169,700	
6		X = 2		10,561	21.25	21.25	224,421								
7		O = 3		1,798	36.19	36.19	65,070		Total Usage Charge Billings in Each Block						
8		W = 4		982	63.31	63.31	62,170		$	106,589,657	15,501,373	1,013,560	0	123,104,590	
9		N = 6		899	122.12	122.12	109,786								
10		V = 8		331	190.00	190.00	62,890								
11		E = 10		35	275.93	275.93	9,658								
12		T = 12		12	479.71	479.71	5,757								
13		H = 14			511.32	511.32	0								
14	Total		151,364,000	4,905,828			31,553,346	119,810,654						154,657,936	102.18%
	Goal						31,263,650				Bill tab adjustment		99.50%	153,884,646	101.67%
											Adjusted to = COS projection		100.000	153,884,646	101.67%
15	Senior Citizens	R = 5/8		242,243	4.73	4.73	1,145,809		Percent of Total Usage in Each Block						
16		Z = 3/4		0	5.41	5.42	0		%	92.92%	7.03%	0.05%	0.00%		
17		Q = 1		37	7.11	7.11	263								
18		Y = 1-1/4		0	9.21	9.21	0		Total Usage in Each Block						
19		P = 1-1/2		12	10.84	10.85	130		Mcf	103,792	7,854	54	0	111,700	
20		X = 2		12	15.94	15.94	191								
21		O = 3		0	27.14	27.14	0		Total Usage Charge Billings in Each Block						
22		W = 4		0	47.48	47.48	0		$	3,090,407	204,165	1,092	0	3,295,664	
23		N = 6		0	91.59	91.59	0								
24		V = 8		0	142.49	142.50	0								
25		E = 10		0	206.94	206.95	0								
26		T = 12		0	359.76	359.78	0								
27		H = 14			383.48	383.49	0								
28	Total		4,331,000	242,304			1,146,393	3,184,607						4,442,057	102.56%
	Goal						1,136,837				Bill tab adjustment		99.50%	4,419,847	102.05%
											Adjusted to = COS projection		100.000	4,419,847	102.05%
29	Commercial	R = 5/8		336,791	6.31	6.31	2,125,151		Percent of Total Usage in Each Block						
30		Z = 3/4		169	7.22	7.22	1,220		%	25.70%	59.24%	14.87%	0.19%		
31		Q = 1		30,841	9.48	9.48	292,373								
32		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block						
33		P = 1-1/2		12,760	14.46	14.46	184,510		Mcf	324,966	749,257	188,038	2,439	1,264,700	
34		X = 2		17,864	21.25	21.25	379,610								
35		O = 3		6,079	36.19	36.19	219,999		Total Usage Charge Billings in Each Block						
36		W = 4		4,442	63.31	63.31	281,223		$	12,901,150	25,969,248	5,071,385	63,877	44,005,660	
37		N = 6		3,046	122.12	122.12	371,978								
38		V = 8		1,132	189.99	189.99	215,069								
39		E = 10		144	275.92	275.92	39,732								
40		T = 12		36	479.68	479.68	17,268		Non-Residential Rate Block Volume Charge						
41		H = 14			511.30	511.30	0		$/Mcf	39.70	34.66	26.97	26.19		
42	Total		47,049,000	413,304			4,128,133	42,920,867						48,133,793	102.31%
	Goal						4,090,078				Bill tab adjustment		99.50%	47,893,124	101.79%
											Adjusted to = COS projection		100.000	47,893,124	101.79%

43	Industrial	R = 5/8		6,396	6.31	6.31	40,359		Percent of Total Usage in Each Block							
44		Z = 3/4		0	7.22	7.22	0		%	11.91%	43.57%	44.52%	0.00%			
45		Q = 1		3,038	9.48	9.48	28,800									
46		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block							
47		P = 1-1/2		1,013	14.46	14.46	14,648		Mcf	10,865	39,732	40,603	0	91,200		
48		X = 2		1,370	21.25	21.25	29,113									
49		O = 3		596	36.19	36.19	21,569		Total Usage Charge Billings in Each Block							
50		W = 4		226	63.31	63.31	14,308		$	431,341	1,377,111	1,095,063	0	2,903,515		
51		N = 6		214	122.12	122.12	26,134									
52		V = 8		83	189.99	189.99	15,769									
53		E = 10		24	275.92	275.92	6,622									
54		T = 12		0	479.68	479.68	0									
55		H = 14			511.30	511.30	0									
56	Total		3,013,000	12,960			197,322	2,815,678							3,100,837	102.92%
	Goal						195,683				Bill tab adjustment			99.50%	3,085,333	102.40%
														100.000	3,085,333	102.40%
57	Public Utilities	R = 5/8		474	6.31	6.31	2,991		Percent of Total Usage in Each Block							
58		Z = 3/4		0	7.22	7.22	0		%	14.65%	77.55%	7.79%	0.00%			
59		Q = 1		359	9.48	9.48	3,403									
60		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block							
61		P = 1-1/2		128	14.46	14.46	1,851		Mcf	1,421	7,523	756	0	9,700		
62		X = 2		256	21.25	21.25	5,440									
63		O = 3		166	36.19	36.19	6,008		Total Usage Charge Billings in Each Block							
64		W = 4		51	63.31	63.31	3,229		$	56,414	260,747	20,389	0	337,550		
65		N = 6		64	122.12	122.12	7,816									
66		V = 8		13	189.99	189.99	2,470									
67		E = 10		0	275.92	275.92	0									
68		T = 12		13	479.68	479.68	6,236									
69		H = 14			511.30	511.30	0									
70	Total		345,000	1,524			39,444	305,556							376,994	109.27%
	Goal						37,514				Bill tab adjustment			99.50%	375,109	12.45%
											Adjusted to = COS projection			100.0000	375,109	12.45%
71	TOTAL GENERAL SERVICE		206,102,000	5,575,920			37,064,638	169,037,362							210,711,617	102.24%
	Goal						36,723,763				Adjusted				209,658,059	101.73%
											Adjusted to = COS projection				209,658,059	101.73%
	ALL OTHER CLASSES															
					5% discount											
72	Housing Authority	R = 5/8		67,984	5.99	5.99	407,224		Percent of Total Usage in Each Block							
73		Z = 3/4		0	6.86	6.86	0		%	35.91%	38.20%	25.89%	0.00%			
74		Q = 1		781	9.00	9.01	7,037									
75		Y = 1-1/4		0	11.67	11.67	0		Total Usage in Each Block							
76		P = 1-1/2		95	13.74	13.74	1,305		Mcf	61,406	65,321	44,273	0	171,000		
77		X = 2		745	20.19	20.19	15,042									
78		O = 3		438	34.38	34.38	15,058		Total Usage Charge Billings in Each Block							
79		W = 4		319	60.14	60.14	19,185		$	2,315,927	2,150,825	1,134,341	0	5,601,093		
80		N = 6		284	116.01	116.01	32,947									
81		V = 8		106	180.49	180.50	19,133									
82		E = 10		0	262.13	262.13	0									
83		T = 12		0	455.71	455.72	0									
84		H = 14			485.74	485.75	0									
85	Total		6,349,000	70,752			516,931	5,832,069							6,118,024	96.36%
	Goal						513,389				Bill tab adjustment			99.50%	6,087,434	95.88%
											Adjusted to = COS projection			100.000	6,087,434	95.88%

86	Charities & Schools	R = 5/8		14,698	4.73	4.73	69,522		Percent of Total Usage in Each Block							
87		Z = 3/4		0	5.41	5.41	0		%	17.97%	71.53%	10.51%	0.00%			
88		Q = 1		3,883	7.11	7.11	27,608									
89		Y = 1-1/4		0	9.21	9.21	0		Total Usage in Each Block							
90		P = 1-1/2		1,913	10.84	10.84	20,737		Mcf	35,878	142,841	20,981	0	199,700		
91		X = 2		2,978	15.93	15.93	47,440									
92		O = 3		2,852	27.14	27.14	77,403		Total Usage Charge Billings in Each Block							
93		W = 4		3,723	47.48	47.48	176,768		$	1,068,267	3,713,152	424,393	0	5,205,812		
94		N = 6		985	91.58	91.58	90,206									
95		V = 8		229	142.48	142.48	32,628									
96		E = 10		23	206.93	206.93	4,759									
97		T = 12		0	359.74	359.74	0									
98		H = 14			383.45	383.45	0									
99	Total		5,643,000	31,284			547,071	5,095,929							5,752,883	101.95%
	Goal						541,423					Bill tab adjustment		99.50%	5,724,119	101.44%
												Adjusted to = COS projection		100.000	5,724,119	101.44%
100	Hospital/University	R = 5/8		663	4.73	4.73	3,136		Percent of Total Usage in Each Block							
101		Z = 3/4		0	5.41	5.41	0		%	2.75%	51.92%	45.34%	0.00%			
102		Q = 1		395	7.11	7.11	2,808									
103		Y = 1-1/4		0	9.21	9.21	0		Total Usage in Each Block							
104		P = 1-1/2		183	10.84	10.84	1,984		Mcf	7,997	151,187	132,016	0	291,200		
105		X = 2		762	15.93	15.93	12,139									
106		O = 3		1,270	27.14	27.14	34,468		Total Usage Charge Billings in Each Block							
107		W = 4		1,425	47.48	47.48	67,659		$	238,111	3,930,106	2,670,354	0	6,838,571		
108		N = 6		1,143	91.58	91.58	104,676									
109		V = 8		141	142.48	142.48	20,090									
110		E = 10		42	206.93	206.93	8,691									
111		T = 12		0	359.74	359.74	0									
112		H = 14			383.45	383.45	0									
113	Total		7,377,000	6,024			255,651	7,121,349							7,094,222	96.17%
	Goal						254,743					Bill tab adjustment		99.50%	7,058,751	95.69%
												Adjusted to = COS projection		100.000	7,058,751	95.69%
114	Hand Billed	R = 5/8		142	6.31	6.31	896		Percent of Total Usage in Each Block							
115		Z = 3/4		0	7.22	7.22	0		%	0.95%	27.65%	51.42%	19.97%			
116		Q = 1		179	9.48	9.48	1,697									
117		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block							
118		P = 1-1/2		131	14.46	14.46	1,894		Mcf	5,413	156,799	291,577	113,211	567,000		
119		X = 2		441	21.25	21.25	9,371									
120		O = 3		846	36.19	36.19	30,617		Total Usage Charge Billings in Each Block							
121		W = 4		929	63.31	63.31	58,815		$	214,896	5,434,653	7,863,832	2,964,996	16,478,377		
122		N = 6		393	122.12	122.12	47,993									
123		V = 8		143	189.99	189.99	27,169									
124		E = 10		36	275.92	275.92	9,933									
125		T = 12		0	479.68	479.68	0									
126		H = 14			511.30	511.30	0									
127	Total		19,386,000	3,240			188,385	19,197,615							16,666,762	85.97%
	Goal						136,877					Bill tab adjustment		99.50%	16,583,428	85.54%
												Adjusted to = COS projection		100.000	16,583,428	85.54%
128	Scheduled (Flat Rate)	R = 5/8		24	6.31	6.31	151		Percent of Total Usage in Each Block							
129		Z = 3/4		0	7.22	7.22	0		%	100.00%	0.00%	0.00%	0.00%			
130		Q = 1		0	9.48	9.48	0									
131		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block							
132		P = 1-1/2		0	14.46	14.46	0		Mcf	0	0	0	0	0		
133		X = 2		0	21.25	21.25	0									
134		O = 3		0	36.19	36.19	0		Total Usage Charge Billings in Each Block							
135		W = 4		0	63.31	63.31	0		$	0	0	0	0	0		
136		N = 6		0	122.12	122.12	0									
137		V = 8		0	189.99	189.99	0									
138		E = 10		0	275.92	275.92	0									
139		T = 12		0	479.68	479.68	0									
140		H = 14			511.30	511.30	0									
141	Total		0	24			151	(151)							151	#DIV/0!
	Goal						0					Bill tab adjustment		99.50%	150	#DIV/0!
												Adjusted to = COS projection		100.000	150	#DIV/0!

142	City Leased Property	R = 5/8		198	6.31	6.31	1,249		Percent of Total Usage in Each Block							
143		Z = 3/4		0	7.22	7.22	0		%	5.47%	39.84%	14.11%	40.58%			
144		Q = 1		93	9.48	9.48	882									
145		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block							
146		P = 1-1/2		70	14.46	14.46	1,012		Mcf	470	3,426	1,214	3,490	8,600		
147		X = 2		152	21.25	21.25	3,230									
148		O = 3		82	36.19	36.19	2,968		Total Usage Charge Billings in Each Block							
149		W = 4		152	63.31	63.31	9,623		$	18,659	118,745	32,742	91,403	261,549		
150		N = 6		58	122.12	122.12	7,083									
151		V = 8		23	189.99	189.99	4,370									
152		E = 10		12	275.92	275.92	3,311									
153		T = 12		0	479.68	479.68	0									
154		H = 14			511.30	511.30	0									
155	Total		313,000	840			33,728	279,272							295,277	94.34%
	Goal						34,473				Bill tab adjustment			99.50%	293,801	93.87%
											Adjusted to = COS projection			100.000	293,801	93.87%
156	City	R = 5/8		2,659	6.31	6.31	16,778		Percent of Total Usage in Each Block							
157		Z = 3/4		63	7.22	7.22	455		%	5.47%	33.76%	55.84%	4.93%			
158		Q = 1		1,494	9.48	9.48	14,163									
159		Y = 1-1/4		0	12.28	12.28	0		Total Usage in Each Block							
160		P = 1-1/2		887	14.46	14.46	12,826		Mcf	12,991	80,169	132,623	11,717	237,500		
161		X = 2		2,938	21.25	21.25	62,433									
162		O = 3		1,583	36.19	36.19	57,289		Total Usage Charge Billings in Each Block							
163		W = 4		925	63.31	63.31	58,562		$	515,743	2,778,658	3,576,842	306,868	7,178,111		
164		N = 6		722	122.12	122.12	88,171									
165		V = 8		228	189.99	189.99	43,318									
166		E = 10		165	275.92	275.92	45,527									
167		T = 12		0	479.68	479.68	0									
168		H = 14			511.30	511.30	0									
169	Total		8,140,000	11,664			399,522	7,740,478		7					7,577,633	93.09%
	Goal						396,435				Bill tab adjustment			99.50%	7,539,745	92.63%
											Adjusted to = COS projection			100.0000	7,539,745	92.63%
170	Fire Protect. (Private)	R = 5/8		1,228	4.50	24.38	29,939		Percent of Total Usage in Each Block							
171		Z = 3/4		161	4.94	24.38	3,925		%	7.94%	33.28%	58.78%	0.00%			
172		Q = 1		5,578	5.69	24.38	135,992									
173		Y = 1-1/4		0	6.52	24.38	0		Total Usage in Each Block							
174		P = 1-1/2		1,273	6.87	24.38	31,036		Mcf	881	3,694	6,525	0	11,100		
175		X = 2		17,379	9.11	24.38	423,700									
176		O = 3		3,487	13.43	24.38	85,013		Total Usage Charge Billings in Each Block							
177		W = 4		19,082	25.37	24.38	465,219		$	34,976	128,034	175,979	0	338,989		
178		N = 6		30,416	46.25	44.45	1,351,991									
179		V = 8		9,738	68.61	65.93	642,026									
180		E = 10		1,403	101.43	97.47	136,750									
181		T = 12		228	153.46	147.48	33,625									
182		H = 14			169.91	163.28	0									
183	Total		3,277,000	89,973			3,339,216	(62,216)							3,678,205	112.24%
	Goal				Factor	0.9610	2,139,332							99.50%	3,659,814	111.68%
							3,502,838	(65,265)						100.0000	3,659,814	111.68%

184	Fire Protect. (Public)	R = 5/8			Annual		Percent of Total Usage in Each Block							
185		Z = 3/4			Svc. Charge		%	7.94%	33.28%	58.78%	0.00%			
186		Q = 1			Equals COS									
187		Y = 1-1/4			Less Vol.		Total Usage in Each Block							
188		P = 1-1/2			Charges		Mcf	0	0	0	0	0		
189		X = 2												
190		O = 3					Total Usage Charge Billings in Each Block							
191		W = 4					$	0	0	0	0	0		
192		N = 6												
193		V = 8												
194		E = 10												
195		T = 12												
196		H = 14												
197	Total		7,621,000	0	7,621,000	0							7,621,000	100.00%
	Goal				7,553,566				Bill tab adjustment			100.00%	7,621,000	100.00%
198	TOTAL EXCLUDING GENERAL SERVICE		58,106,000	213,801	12,901,655	45,204,345							54,804,157	94.32%
	Goal				11,570,237				Adjusted				54,568,242	93.91%
199	TOTAL ALL CLASSES		264,208,000	5,789,721	49,966,293	214,241,707							265,515,774	100.49%
	Goal				48,294,000				Adjusted				264,226,301	100.01%
					103.46%				Adjusted to = COS projection				264,226,301	100.01%

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 % (4) / (2)	(7) Volume Charge % 1 - (6)
1	Residential	3,169,700	153,884,646	48.5486	31,395,579	122,489,067	20.40%	79.60%
2	Senior Citizens	111,700	4,419,847	39.5689	1,140,661	3,279,186	25.81%	74.19%
3	Commercial	1,264,700	47,893,124	37.8692	4,107,492	43,785,632	8.58%	91.42%
4	Industrial	91,200	3,085,333	33.8304	196,335	2,888,998	6.36%	93.64%
5	Public Utilities	9,700	375,109	38.6710	39,247	335,862	10.46%	89.54%
6	Subtotal General Service	4,647,000	209,658,059	45.1169	36,879,314	172,778,745	17.59%	82.41%
7	Housing Authority	171,000	6,087,434	35.5990	514,346	5,573,088	8.45%	91.55%
8	Charities & Schools	199,700	5,724,119	28.6636	544,336	5,179,783	9.51%	90.49%
9	Hospital/University	291,200	7,058,751	24.2402	254,373	6,804,378	3.60%	96.40%
10	Hand Bills	567,000	16,583,428	29.2477	187,443	16,395,985	1.13%	98.87%
11	Scheduled (Flat Rate)	0	150	0.0000	150	0	100.00%	0.00%
12	City Leased Properties	8,600	293,801	34.1629	33,559	260,242	11.42%	88.58%
13	City	237,500	7,539,745	31.7463	397,524	7,142,221	5.27%	94.73%
14	Fire Protect. (Private)	11,100	3,678,205	40.8812	3,339,216	338,989	90.78%	9.22%
15	Fire Protect. (Public)	0	7,621,000	7,621,000	7,621,000	0	100.00%	0.00%
16	Total	6,133,100	264,244,692	43.0850	49,771,261	214,473,431	18.84%	81.16%

(1) Public and Private Fire Protection Unit Billings = $/Bill.

WCOS15_17.XLS

LAGRATE

Philadelphia Water Department (PWD)

Water Utility Financial Planning & Rate Design

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-18
CPRATES	Water & Wastewater Proposed Rates	LagRate-12	
WPRATES	Water Proposed Rates	LagRate-13	TABLE W-19 and TABLE W-20
BTAB	BillTab Billing Percentages	LagRate-14	
WSERVCHG	Components of Water Service Charges	LagRate-15	
WSERVCHG	Summary of Components Water Service Charges	LagRate-16	

References: 0
0

TEST YEAR COS RATES
TEST YEAR 2017
Effective July 1, 2017
(Prior to Application of Lag Factor Adjustment)

Meter Size inches	Meter Code	Gen Svc Residential Service Charge $/Bill Rates-3	Discount Senior Citizen Service Charge (a) $/Bill Rates-3
5/8	R	6.31	4.73
3/4	Z	7.22	5.42
1	Q	9.48	7.11
1 1/4	Y	12.28	9.21
1 1/2	P	14.46	10.85
2	X	21.25	15.94
3	O	36.19	27.14
4	W	63.31	47.48
6	N	122.12	91.59
8	V	190.00	142.50
10	E	275.93	206.95
12	T	479.71	359.78
14	H	511.32	383.49

	First Block 0 - 2 Mcf $/Mcf Rates-3	Second Block 3 - 100 Mcf $/Mcf Rates-3	Third Block 101 - 2,000 Mcf $/Mcf Rates-3	Fourth Block >2,000 Mcf $/Mcf Rates-3
General Service Volume Cha	39.70	34.66	26.97	26.19
Discount Volume Charge (a)	29.78	26.00	20.23	19.64

EXISTING RATES
(Effective Jul 1, 2014)

Meter Size inches	Meter Code	General Service Service Charge $/Bill Ref. A	Other (a) Service Charge $/Bill
5/8	R	6.46	4.85
3/4	Z	7.49	5.62
1	Q	9.98	7.49
1 1/4	Y	13.10	9.83
1 1/2	P	15.56	11.67
2	X	23.05	17.29
3	O	39.64	29.73
4	W	69.00	51.75
6	N	133.60	100.20
8	V	208.47	156.35
10	E	302.43	226.82
12	T	530.00	397.50
14	H		0.00

	First 2 Mcf $/Mcf Ref. B	Next 98 Mcf $/Mcf Ref. B	Next 1,900 Mcf $/Mcf Ref. B	Over 2,000 Mcf $/Mcf Ref. B
General Service Volume Charge	39.05	31.54	28.95	21.98
Discount Volume Charge (a)	29.29	23.66	21.71	16.49

Meter Size inches	Meter Code	Gen Svc Non Res Service Charge $/Bill Rates-3	Discount Service Charge (a) $/Bill Rates-3
5/8	R	6.31	4.73
3/4	Z	7.22	5.41
1	Q	9.48	7.11
1 1/4	Y	12.28	9.21
1 1/2	P	14.46	10.84
2	X	21.25	15.93
3	O	36.19	27.14
4	W	63.31	47.48
6	N	122.12	91.58
8	V	189.99	142.48
10	E	275.92	206.93
12	T	479.68	359.74
14	H	511.30	383.45

	First Block 0 - 2 Mcf $/Mcf Rates-3	Second Block 3 - 100 Mcf $/Mcf Rates-3	Third Block 101 - 2,000 Mcf $/Mcf Rates-3	Fourth Block >2,000 Mcf $/Mcf Rates-3
General Service Volume Cha	39.70	34.66	26.97	26.19
Discount Volume Charge (a)	29.78	26.00	20.23	19.64

Meter Size inches	Meter Code	General Service Service Charge $/Bill Ref. A	Other (a) Service Charge $/Bill
5/8	R	6.46	4.85
3/4	Z	7.49	5.62
1	Q	9.98	7.49
1 1/4	Y	13.10	9.83
1 1/2	P	15.56	11.67
2	X	23.05	17.29
3	O	39.64	29.73
4	W	69.00	51.75
6	N	133.60	100.20
8	V	208.47	156.35
10	E	302.43	226.82
12	T	530.00	397.50
14	H		0.00

	First 0 $/Mcf Ref. B	Next 0 $/Mcf Ref. B	Next 0 $/Mcf Ref. B	Over 0 $/Mcf Ref. B
General Service Volume Charge	39.05	31.54	28.95	21.98
Discount Volume Charge (a)	29.29	23.66	21.71	16.49

(a) Discount rate applies to Senior Citizens and Charities.

Projected Number of Accounts
"Water and Sewer" plus "Water Only"

	Fiscal Year Ending June 30										Test Year
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017
General Service											
5/8" (excl Senior Citizens)	438,702	439,088	432,455	432,455	432,455	432,455	432,455	432,455	432,455	432,455	432,455
>5/8" (excl Senior Citizens)	10,106	11,269	12,013	12,013	12,013	12,013	12,013	12,013	12,013	12,013	12,013
Senior Citizens (5/8")	19,230	19,518	20,188	20,188	20,188	20,188	20,188	20,188	20,188	20,188	20,188
Senior Citizens (>5/8")	5	5	4	4	4	4	4	4	4	4	4
Housing Authority	6,023	5,981	5,896	5,896	5,896	5,896	5,896	5,896	5,896	5,896	5,896
Charities & Schools	2,701	2,731	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607
Hospital/University	409	427	502	502	502	502	502	502	502	502	502
Scheduled (Flat Rate)	2	2	2	2	2	2	2	2	2	2	2
Fire Meters	5,567	6,528	7,498	7,498	7,498	7,498	7,498	7,498	7,498	7,498	7,498
City Properties Leased to Others (821)	72	69	70	70	70	70	70	70	70	70	70
City (820)	935	921	972	972	972	972	972	972	972	972	972
Total	483,752	486,539	482,207	482,207	482,207	482,207	482,207	482,207	482,207	482,207	482,207

Projected Number of Bills
"Water and Sewer" plus "Water Only"
(Number of Accounts x 12)

	Fiscal Year Ending June 30										Test Year
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017
General Service											
5/8" (excl Senior Citizens)	5,264,424	5,269,056	5,189,460	5,189,460	5,189,460	5,189,460	5,189,460	5,189,460	5,189,460	5,189,460	5,189,460
>5/8" (excl Senior Citizens)	121,272	135,228	144,156	144,156	144,156	144,156	144,156	144,156	144,156	144,156	144,156
Senior Citizens (5/8")	230,760	234,216	242,256	242,256	242,256	242,256	242,256	242,256	242,256	242,256	242,256
Senior Citizens (>5/8")	60	60	48	48	48	48	48	48	48	48	48
Housing Authority	72,276	71,772	70,752	70,752	70,752	70,752	70,752	70,752	70,752	70,752	70,752
"N" Charities	32,412	32,772	31,284	31,284	31,284	31,284	31,284	31,284	31,284	31,284	31,284
"6 Cent" Charities	4,908	5,124	6,024	6,024	6,024	6,024	6,024	6,024	6,024	6,024	6,024
Scheduled (Flat Rate)	24	24	24	24	24	24	24	24	24	24	24
Fire Meters	66,804	78,336	89,976	89,976	89,976	89,976	89,976	89,976	89,976	89,976	89,976
City Properties Leased to Others (821)	864	828	840	840	840	840	840	840	840	840	840
City (820)	11,220	11,052	11,664	11,664	11,664	11,664	11,664	11,664	11,664	11,664	11,664
Total	5,805,024	5,838,468	5,786,484	5,786,484	5,786,484	5,786,484	5,786,484	5,786,484	5,786,484	5,786,484	5,786,484

Projected Consumption
"Water and Sewer" plus "Water Only"

	Fiscal Year Ending June 30										Test Year
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017
Senior Citizens	110,129	109,963	115,954	113,288	111,673	110,058	108,443	106,828	105,213	103,598	111,673
Residential (excl SC)	3,400,216	3,268,227	3,220,713	3,210,064	3,169,665	3,129,266	3,093,760	3,062,880	3,031,781	2,995,842	3,169,665
Commercial	1,241,882	1,224,586	1,296,058	1,269,435	1,264,697	1,260,238	1,258,455	1,258,687	1,258,093	1,255,237	1,264,697
Industrial	91,663	96,076	90,683	91,341	91,248	91,160	91,272	91,524	91,728	91,745	91,248
Public Utilities	8,934	8,508	10,712	9,697	9,690	9,684	9,677	9,671	9,665	9,658	9,690
Housing Authority	166,971	165,984	178,327	170,984	170,984	170,984	170,984	170,984	170,984	170,984	170,984
Charities & Schools ("N" Charities)	216,268	217,250	192,057	199,696	199,696	199,696	199,696	199,696	199,696	199,696	199,696
Hospital & University("6 Cent" Charities)	261,941	262,373	272,764	291,160	291,160	291,160	291,160	291,160	291,160	291,160	291,160
Hand Bill	566,551	562,496	573,950	567,000	567,000	567,000	567,000	567,000	567,000	567,000	567,000
Scheduled (Flat Rate)	16	22	21	21	21	21	21	21	21	21	21
Fire Meters	15,986	9,277	11,569	11,081	11,081	11,081	11,081	11,081	11,081	11,081	11,081
City Properties Leased to Others (821)	6,813	8,095	8,984	8,610	8,610	8,610	8,610	8,610	8,610	8,610	8,610
City (820)	233,283	219,674	243,041	237,460	237,460	237,460	237,460	237,460	237,460	237,460	237,460
Total	6,320,652	6,152,531	6,214,832	6,179,837	6,132,985	6,086,417	6,047,619	6,015,602	5,982,491	5,942,091	6,132,985
Bucks County	535,749	535,000	0	0	0	0	0	0	0	0	0
Total	6,856,401	6,687,531	6,214,832	6,179,837	6,132,985	6,086,417	6,047,619	6,015,602	5,982,491	5,942,091	6,132,985

(a) Included with General Service for this update.

Reference: RReq13.xls - Wrev-6

PROJECTED WATER RECEIPTS UNDER EXISTING RATES

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
	Billings															Receipts							
																B&V Calculate	Actual						
																General Servic	General Service						
																		City					
Fiscal Year Ending June 30	Senior Citizens	Residential Excluding SC	Commercial	Industrial	Public Utilities	Housing Authority	Charities & Schools	Hospitals & Universities	Hand Bill	City Leased Properties	Scheduled (Flat Rate)	Subtotal (b)	Bucks County	Aqua PA	Total Billings	Total Receipts (d)	Total Receipts	Water Sales	Fire Protection	Misc. City	Total (e)	Private Fire Protection	Total Receipts
	$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	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
															x								(10)+(15)+(16)
2013	3,861	144,103	39,849	2,696	288	5,180	5,205	5,462	14,209	200	1	221,053	6,415	3,489	230,957	211,482	221,394	6,515	7,391	0	13,906	2,717	228,105
2014	4,148	150,280	42,910	3,079	303	5,580	5,687	5,971	15,395	250	1	233,604	7,813	3,665	245,082	222,500	234,037	6,692	7,874	0	14,566	3,027	240,093
2015	4,517	154,175	47,174	3,039	388	6,212	5,281	6,522	16,458	285	1	244,052	0	3,756	247,807	235,321	0	7,720	8,162	0	15,882	2,727	253,930
2016	4,425	153,248	46,143	3,050	354	5,959	5,449	6,920	16,211	274	1	242,034	0	3,692	245,726	233,112	0	7,528	8,162	0	15,690	3,505	252,307
2017	4,378	151,726	45,987	3,047	354	5,959	5,449	6,920	16,211	274	1	240,306	0	3,692	243,998	231,662	0	7,528	8,162	0	15,690	3,505	250,858
2018	4,332	150,204	45,840	3,045	353	5,959	5,449	6,920	16,211	274	1	238,588	0	3,692	242,280	230,001	0	7,528	8,162	0	15,690	3,505	249,196
2019	4,285	148,866	45,781	3,048	353	5,959	5,449	6,920	16,211	274	1	237,148	0	3,692	240,840	228,580	0	7,528	8,162	0	15,690	3,505	247,776
2020	4,239	147,702	45,789	3,056	353	5,959	5,449	6,920	16,211	274	1	235,953	0	3,692	239,645	227,395	0	7,528	8,162	0	15,690	3,505	246,590
2021	4,193	146,530	45,770	3,062	353	5,959	5,449	6,920	16,211	274	1	234,721	0	3,692	238,414	226,208	0	7,528	8,162	0	15,690	3,505	245,404
2022	4,146	145,176	45,676	3,063	353	5,959	5,449	6,920	16,211	274	1	233,227	0	3,692	236,919	224,802	0	7,528	8,162	0	15,690	3,505	243,997
2023	4,100	143,654	45,538	3,060	352	5,959	5,449	6,920	16,211	274	1	231,518	0	3,692	235,210	223,187	0	7,528	8,162	0	15,690	3,505	242,382
2024	4,053	142,284	45,402	3,058	352	5,959	5,449	6,920	16,211	274	1	229,963	0	3,692	233,656	221,675	0	7,528	8,162	0	15,690	3,505	240,871
2025	4,013	140,914	45,264	3,055	352	5,959	5,449	6,920	16,211	274	1	228,412	0	3,692	232,105	220,178	0	7,528	8,162	0	15,690	3,505	239,374
2026	3,972	139,544	45,127	3,053	352	5,959	5,449	6,920	16,211	274	1	226,861	0	3,692	230,554	218,685	0	7,528	8,162	0	15,690	3,505	237,880
TY 2017	4,378	151,726	45,987	3,047	354	5,959	5,449	6,920	16,211	274	1	240,306	0	3,692	243,998	231,662		7,528	8,162	0	15,690	3,505	250,858

(a) Includes Residential, Commercial, and Industrial.
(b) 2015 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 Pior 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.

Reference: Financial Planning Model - Customer/Link

Gross Billing Adjustment Factor = 0.00

	(1)	(2)	(3)	(4)	(5)
	Percent Volume Charge % Ref. A	Percent Service Charge % Ref. A	TY 2017 Billings Under Existing Rates $ LagRate-4	Volume Charge Billings $ (1) x (3)	Service Charge Billings $ (2) x (3)
Senior Citizens	73.31%	26.69%	4,378,207	3,209,854	1,168,353
Residential (Exlcuding SC)	78.72%	21.28%	151,726,046	119,436,918	32,289,128
Commercial	90.46%	9.54%	45,986,799	41,598,425	4,388,374
Industrial	93.20%	6.80%	3,047,232	2,840,105	207,127
Public Utilities	88.46%	11.54%	353,546	312,761	40,785
Housing Authority	91.04%	8.96%	5,959,262	5,425,071	534,191
Charities & Schools	89.20%	10.80%	5,449,034	4,860,715	588,319
Hospitals & University	95.99%	4.01%	6,920,369	6,642,641	277,728
Hand Bill	98.74%	1.26%	16,210,548	16,005,915	204,633
City Leased Properties	86.67%	13.33%	273,859	237,356	36,503
Scheduled (Flat Rate)	84.35%	15.65%	986	831	154
City	94.26%	5.74%	7,528,147	7,095,930	432,217
Private Fire	9.63%	90.37%	3,505,201	337,532	3,167,669
Public Fire	0.00%	100.00%	8,162,000	0	8,162,000
Total	80.16%	19.84%	259,501,235	208,004,055	51,497,180
Total less City	79.73%	20.27%	251,973,088	200,908,125	51,064,963
Total less City & Fire	83.12%	16.88%	232,777,741	193,474,663	39,303,077

(a) Includes Residential, Commercial, Industrial, Public Utilities, and Miscellaneous.

		Senior Citizens	Residential	Commercial	Industrial	Public Utilities	Housing Authority	Charities & Schools	Hospitals & Universities	Hand Bill	Scheduled (Flat Rate)	City Leased	City	Private Fire Protection	Public Fire Protection	Total	Total less City	Total less City and Fire
Test Year Unit Billings - $/M	Rates-4	39.5689	48.5486	37.8692	33.8304	38.6710	35.5990	28.6636	24.2402	29.2477	0.0000	34.1629	31.7463	40.8812	7,621,000			
Test Year Percent Service Cl	Rates-4	25.81%	20.40%	8.58%	6.36%	10.46%	8.45%	9.51%	3.60%	1.13%	100.00%	11.42%	5.27%	90.78%	100.00%			
Test Year Percent Volume Cl	Rates-4	74.19%	79.60%	91.42%	93.64%	89.54%	91.55%	90.49%	96.40%	98.87%	0.00%	88.58%	94.73%	9.22%	0.00%			
2015														89,976				
Billed Volume	LagRate-3	115,954	3,220,713	1,296,058	90,683	10,712	178,327	192,057	272,764	573,950	21	8,984	243,041	(b)		6,203,264	5,960,222	5,960,222
Service Charge Billings		1,184,000	31,898,000	4,211,000	195,000	43,000	536,000	524,000	238,000	190,000	0	35,000	407,000	3,182,000	8,162,000	50,805,000	50,398,000	39,054,000
Volume Charge Billings		3,404,000	124,463,000	44,870,000	2,873,000	371,000	5,812,000	4,981,000	6,374,000	16,597,000	0	272,000	7,309,000	323,000	0	217,649,000	210,340,000	210,017,000
Total Billings		4,588,000	156,361,000	49,081,000	3,068,000	414,000	6,348,000	5,505,000	6,612,000	16,787,000	0	307,000	7,716,000	3,505,000	8,162,000	268,454,000	260,738,000	249,071,000
2016														89,976				
Billed Volume	LagRate-3	113,288	3,210,064	1,269,435	91,341	9,697	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		6,168,756	5,931,296	5,931,296
Service Charge Billings		1,157,000	31,792,000	4,125,000	197,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	50,200,000	49,803,000	38,843,000
Volume Charge Billings		3,326,000	124,052,000	43,948,000	2,893,000	336,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	216,248,000	209,107,000	208,768,000
Total Billings		4,483,000	155,844,000	48,073,000	3,090,000	375,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	266,448,000	258,910,000	247,611,000
		x				x		x				x						
2017														89,976				
Billed Volume	LagRate-3	111,673	3,169,665	1,264,697	91,248	9,690	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		6,121,904	5,884,444	5,884,444
Service Charge Billings		1,141,000	31,392,000	4,109,000	196,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	49,767,000	49,370,000	38,410,000
Volume Charge Billings		3,278,000	122,491,000	43,784,000	2,891,000	336,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	214,473,000	207,332,000	206,993,000
Total Billings		4,419,000	153,883,000	47,893,000	3,087,000	375,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	264,240,000	256,702,000	245,403,000
2018														89,976				
Billed Volume	LagRate-3	110,058	3,129,266	1,260,238	91,160	9,684	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		6,075,336	5,837,876	5,837,876
Service Charge Billings		1,124,000	30,992,000	4,095,000	196,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	49,336,000	48,939,000	37,979,000
Volume Charge Billings		3,231,000	120,929,000	43,629,000	2,888,000	335,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	212,705,000	205,564,000	205,225,000
Total Billings		4,355,000	151,921,000	47,724,000	3,084,000	374,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	262,041,000	254,503,000	243,204,000
2019														89,976				
Billed Volume	LagRate-3	108,443	3,093,760	1,258,455	91,272	9,677	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		6,036,538	5,799,079	5,799,079
Service Charge Billings		1,108,000	30,640,000	4,089,000	196,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	48,962,000	48,565,000	37,605,000
Volume Charge Billings		3,183,000	119,558,000	43,568,000	2,892,000	335,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	211,229,000	204,088,000	203,749,000
Total Billings		4,291,000	150,198,000	47,657,000	3,088,000	374,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	260,191,000	252,653,000	241,354,000
2020														89,976				
Billed Volume	LagRate-3	106,828	3,062,880	1,258,687	91,524	9,671	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		6,004,521	5,767,062	5,767,062
Service Charge Billings		1,091,000	30,335,000	4,090,000	197,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	48,642,000	48,245,000	37,285,000
Volume Charge Billings		3,136,000	118,364,000	43,575,000	2,899,000	335,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	210,002,000	202,861,000	202,522,000
Total Billings		4,227,000	148,699,000	47,665,000	3,096,000	374,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	258,644,000	251,106,000	239,807,000
2021														89,976				
Billed Volume	LagRate-3	105,213	3,031,781	1,258,093	91,728	9,665	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		5,971,411	5,733,951	5,733,951
Service Charge Billings		1,074,000	30,027,000	4,088,000	197,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	48,315,000	47,918,000	36,958,000
Volume Charge Billings		3,089,000	117,162,000	43,555,000	2,906,000	335,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	208,740,000	201,599,000	201,260,000
Total Billings		4,163,000	147,189,000	47,643,000	3,103,000	374,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	257,055,000	249,517,000	238,218,000
2022														89,976				
Billed Volume	LagRate-3	103,598	2,995,842	1,255,237	91,745	9,658	170,984	199,696	291,160	567,000	21	8,610	237,460	(b)		5,931,011	5,693,551	5,693,551
Service Charge Billings		1,058,000	29,671,000	4,079,000	197,000	39,000	514,000	544,000	254,000	187,000	0	34,000	397,000	3,339,000	7,621,000	47,934,000	47,537,000	36,577,000
Volume Charge Billings		3,041,000	115,773,000	43,456,000	2,907,000	335,000	5,573,000	5,180,000	6,804,000	16,396,000	0	260,000	7,141,000	339,000	0	207,205,000	200,064,000	199,725,000
Total Billings		4,099,000	145,444,000	47,535,000	3,104,000	374,000	6,087,000	5,724,000	7,058,000	16,583,000	0	294,000	7,538,000	3,678,000	7,621,000	255,139,000	247,601,000	236,302,000

(a) Combined Residential, Commercial, Industrial unit billing rate and percent service and volume charge calculated as follows:

	Billed Volume Mcf Rates-4	Billings $ Rates-4	Unit Billings $/Mcf	Service Charge $ Rates-4	Volume Charge $ Rates-4	Percent Service Charge %	Percent Volume Charge %
Residential	3,169,700	153,884,646		31,395,579	122,489,067	20.40%	79.60%
Commercial	1,264,700	47,893,124		4,107,492	43,785,632	8.58%	91.42%
Industrial	91,200	3,085,333		196,335	2,888,998	6.36%	93.64%
Public Utilities	9,700	375,109		39,247	335,862	10.46%	89.54%
	4,535,300	205,238,212	45.2535	35,738,653	169,499,559	17.41%	82.59%

(b) Total projected billings are equal to test year billings under existing rates.

Reference: LagRate-6

SERVICE CHARGE BILLINGS

	2015	2016	2017	2018	2019	2020	2021	2022
Senior Citizens	1,184,000	1,157,000	1,141,000	1,124,000	1,108,000	1,091,000	1,074,000	1,058,000
Residential	31,898,000	31,792,000	31,392,000	30,992,000	30,640,000	30,335,000	30,027,000	29,671,000
Commercial	4,211,000	4,125,000	4,109,000	4,095,000	4,089,000	4,090,000	4,088,000	4,079,000
Industrial	195,000	197,000	196,000	196,000	196,000	197,000	197,000	197,000
Public Utilities	43,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Subtotal	37,531,000	37,310,000	36,877,000	36,446,000	36,072,000	35,752,000	35,425,000	35,044,000
Housing Authority	536,000	514,000	514,000	514,000	514,000	514,000	514,000	514,000
Charities & Schools	524,000	544,000	544,000	544,000	544,000	544,000	544,000	544,000
Hospitals & Universities	238,000	254,000	254,000	254,000	254,000	254,000	254,000	254,000
Hand Billed	190,000	187,000	187,000	187,000	187,000	187,000	187,000	187,000
Scheduled (Flat Rate)	0	0	0	0	0	0	0	0
City Leased	35,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000
City	407,000	397,000	397,000	397,000	397,000	397,000	397,000	397,000
Fire Protect. (Private)	3,182,000	3,339,000	3,339,000	3,339,000	3,339,000	3,339,000	3,339,000	3,339,000
Fire Protect. (Public)	8,162,000	7,621,000	7,621,000	7,621,000	7,621,000	7,621,000	7,621,000	7,621,000
Total	50,805,000	50,200,000	49,767,000	49,336,000	48,962,000	48,642,000	48,315,000	47,934,000
Total Less City	50,398,000	49,803,000	49,370,000	48,939,000	48,565,000	48,245,000	47,918,000	47,537,000
Total Less City & Public and Private Fire	39,054,000	38,843,000	38,410,000	37,979,000	37,605,000	37,285,000	36,958,000	36,577,000

VOLUME CHARGE BILLINGS

	2015	2016	2017	2018	2019	2020	2021	2022
Senior Citizens	3,404,000	3,326,000	3,278,000	3,231,000	3,183,000	3,136,000	3,089,000	3,041,000
Residential	124,463,000	124,052,000	122,491,000	120,929,000	119,558,000	118,364,000	117,162,000	115,773,000
Commercial	44,870,000	43,948,000	43,784,000	43,629,000	43,568,000	43,575,000	43,555,000	43,456,000
Industrial	2,873,000	2,893,000	2,891,000	2,888,000	2,892,000	2,899,000	2,906,000	2,907,000
Public Utilities	371,000	336,000	336,000	335,000	335,000	335,000	335,000	335,000
Subtotal	175,981,000	174,555,000	172,780,000	171,012,000	169,536,000	168,309,000	167,047,000	165,512,000
Housing Authority	5,812,000	5,573,000	5,573,000	5,573,000	5,573,000	5,573,000	5,573,000	5,573,000
Charities & Schools	4,981,000	5,180,000	5,180,000	5,180,000	5,180,000	5,180,000	5,180,000	5,180,000
Hospitals & Universities	6,374,000	6,804,000	6,804,000	6,804,000	6,804,000	6,804,000	6,804,000	6,804,000
Hand Billed	16,597,000	16,396,000	16,396,000	16,396,000	16,396,000	16,396,000	16,396,000	16,396,000
Scheduled (Flat Rate)	0	0	0	0	0	0	0	0
City Leased	272,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000
City	7,309,000	7,141,000	7,141,000	7,141,000	7,141,000	7,141,000	7,141,000	7,141,000
Fire Protect. (Private)	323,000	339,000	339,000	339,000	339,000	339,000	339,000	339,000
Fire Protect. (Public)	0	0	0	0	0	0	0	0
Total	217,649,000	216,248,000	214,473,000	212,705,000	211,229,000	210,002,000	208,740,000	207,205,000
Total Less City	210,340,000	209,107,000	207,332,000	205,564,000	204,088,000	202,861,000	201,599,000	200,064,000
Total Less City & Public and Private Fire	210,017,000	208,768,000	206,993,000	205,225,000	203,749,000	202,522,000	201,260,000	199,725,000

Fiscal Year	Proposed Increase	Months Effective	Cumulative Increase 2015 - 2022	Cumulative Increase 2018 - 2022								
	Financial Planning Model											
2015	0.00%	6	100.00%		256,441,000	216,179,000	25,644,000	5,129,000				
2016	0.00%	12	100.00%			84.3%	10.0%	2.0%				
2017	5.00%	12	105.00%									
2018	5.00%	12	110.25%	105.00%								
2019	4.00%	12	114.66%	109.20%	40,292,000	33,966,000	4,029,000	806,000				
2020	4.00%	12	119.25%	113.57%		84.3%	10.0%	2.0%				
2021	5.50%	12	125.80%	119.81%	216,149,000	182,213,000	21,615,000	4,323,000				
2022	5.50%	12	132.72%	126.40%		84.3%	10.0%	2.0%				

Line No.		(1) Number of months at Existing Rates	(2) Number of months at COS Rates	Billings (a) LagRate-5 LagRate-7	(4) Cumulative Percent Increase (b)	(5) FY 2017 COS Rate Adjustment LagRate-9	FY 2018 COS Rate Adjustment	FY 2019 COS Rate Adjustment	FY 2020 COS Rate Adjustment	(6) Adjusted Billings (c) $		(7) Receipts Factor (d) FY 2017 (e) %	FY 2018 %	FY 2019 %	FY 2020 %	(8) Receipts FY 2017 $ (6) x (7)	FY 2018 $	FY 2019 $	FY 2020 $
	SERVICE CHARGE																		
	All classes less City and fire																		
	Existing Rates																		
1	FY 2017	0.0		39,303,077	100.00%					0		84.30	10.00	2.00		0	0	0	
	Adjusted COS Rates Effective July 1, 2016																		
2	FY 2017		12.0	38,410,000	100.00%	104.90%				40,292,000	104.9%	84.30	10.00	2.00		33,966,000	4,029,000	806,000	
	FY 2018		12.0	37,979,000	105.00%	104.90%	104.90%			43,882,000	115.5%		84.30	10.00	2.00		36,993,000	4,388,000	878,000
	FY 2019		12.0	37,605,000	109.20%	104.90%	104.90%	#N/A		#N/A	#N/A			84.30	10.00			#N/A	#N/A
	FY 2020		12.0	37,285,000	113.57%	104.90%	104.90%	#N/A	#N/A	#N/A	#N/A				84.30				#N/A
	Increase in service charge deposit due to rate increase (f)																		
	City and Fire																		
	Existing Rates																		
3	FY 2017	0.0		3,599,886	100.00%					0		100.00	0.00	0.00		0			
	Adjusted COS Rates Effective July 1, 2016																		
4	FY 2017		12.0	3,736,000	100.00%	104.90%				3,919,000		100.00	0.00	0.00		3,919,000			
	FY 2018		12.0	3,736,000	105.00%	104.90%	104.90%			4,317,000			100.00	0.00	0.00		4,317,000		
	FY 2019		12.0	3,736,000	109.20%	104.90%	104.90%	#N/A		#N/A				100.00	0.00			#N/A	
	FY 2020		12.0	3,736,000	113.57%	104.90%	104.90%	#N/A	#N/A	#N/A					100.00				#N/A
	Increase in City service charge deposit due to rate increase																		
	VOLUME CHARGE																		
	All classes less City and fire																		
	Existing Rates																		
5	FY 2017	0.5		193,474,663	100.00%					8,061,000		84.30	10.00	2.00		6,795,000	806,000	161,000	
	Adjusted COS Rates Effective July 1, 2016																		
6	FY 2017		11.5	206,993,000	100.00%	104.90%				208,088,000		84.30	10.00	2.00		175,418,000	20,809,000	4,162,000	
	FY 2018	0.5	11.5	205,225,000	105.00%	104.90%	104.90%			236,211,000			84.30	10.00	2.00		199,126,000	23,621,000	4,724,000
	FY 2019	0.5	11.5	203,749,000	109.20%	104.90%	104.90%	#N/A		#N/A				84.30	10.00			#N/A	#N/A
	FY 2020	0.5	11.5	202,522,000	113.57%	104.90%	104.90%	#N/A	#N/A	#N/A					84.30				#N/A
	City and fire																		
	Existing Rates																		
7	FY 2017	0.5		7,433,462	100.00%					310,000		100.00	0.00	0.00		310,000			
	Adjusted COS Rates Effective July 1, 2016																		
8	FY 2017		11.5	7,480,000	100.00%	104.90%				7,520,000		100.00	0.00	0.00		7,520,000			
	FY 2018	0.5	11.5	7,480,000	105.00%	104.90%	104.90%			8,609,000			100.00	0.00	0.00		8,609,000		
	FY 2019	0.5	11.5	7,480,000	109.20%	104.90%	104.90%	#N/A		#N/A				100.00	0.00			#N/A	
	FY 2020	0.5	11.5	7,480,000	113.57%	104.90%	104.90%	#N/A	#N/A	#N/A					100.00				#N/A

	SURCHARGE RATES														
	Existing Rates														
9	FY 2017	0.0	na	100.00%		0	84.30	10.00	2.00		0	0	0	
	Adjusted COS Rates Effective July 1, 2016														
10	FY 2017	12.0	na	100.00%	104.90%	0	84.30	10.00	2.00		0	0	0	
	FY 2018	12.0	na	105.00%	104.90%	0		84.30	10.00	2.00		0	0	0
	FY 2019	12.0	na	109.20%	104.90%	0			84.30	10.00			0	0
	FY 2020	12.0	na	113.57%	104.90%	0				84.30				0
11	FY 2015 Billings (LagRate-4)		244,051,612	100.00%		244,052,000	2.00				4,881,000			
12	FY 2016 Billings (LagRate-4)		242,033,601	100.00%		242,034,000	10.00	2.00			24,203,000	4,841,000		
13	Total Receipts										257,012,000	279,530,000	#N/A	#N/A
												108.76%	#N/A	#N/A

(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. 245,263,000

(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. 11,749,000

(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.

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. 257,012,000

Adjusted billings for FY 2015 and FY 2016 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.

NOT USED IN CURRENT ANALYSIS

	Percent Increase in Rates Required:	0.998346	0.984816	#N/A	#N/A
	USE:	1.049000	1.04900	#N/A	#N/A
Reference		FY 2017 $	FY 2018 $	FY 2019 $	FY 2020 $
LagRate-8	Total Retail Receipts less Public Fire	257,012,000	271,586,000	#N/A	#N/A
	Requirements:	Retcos-4	CF Data	CF Data	CF Data
	COS	267,278,000	278,809,158	288,333,292	298,452,960 x
	Less Wholesale (Including Mgmt Fee)	(3,377,000)	(3,403,000)	#N/A	#N/A
	Net Retail COS	264,208,000	275,406,158	#N/A	#N/A
	Less Public Fire Protection				
LagRate-5	Under Old Rates				
LagRate-8	Under New Rates	7,621,000	7,944,000	#N/A	#N/A
	Less Monthly Billing Incr. in Volume Charges				
	Total Requirements	256,587,000	267,462,158	#N/A	#N/A
	Revenue Surplus/(Deficiency)	425,000	4,123,842	#N/A	#N/A
LagRate-8	Total Increasable Receipts	220,823,000	265,939,000	#N/A	#N/A
	ADJUSTMENT FACTOR REQUIRED	-0.1654%	-1.5184%	#N/A	#N/A
		0.19%			
	%Rate Adjustment		10.15%	#N/A	#N/A

Input from Model Application for FY 2018 , FY 2019 and FY 2020

		FY 2017 $	FY 2018 $	FY 2019 $	FY 2020 $
Bucks County			Retcos-4	Retcos-4	Retcos-4
Rate Billings		0	0	#N/A	#N/A
Mgmt Fee	12.0%	0	0	#N/A	#N/A
Total Bucks	Retcos-4	0	0	#N/A	#N/A
Aqua PA					
Rate Billings	LagRate-11	3,070,000	3,094,000	#N/A	#N/A
Mgmt Fee	10.0%	307,000	309,000	#N/A	#N/A
Carrying					
Total Aqua PA		3,377,000	3,403,000	#N/A	#N/A
Total Wholesale w/Mgmt Fee		3,377,000	3,403,000	#N/A	#N/A
		263,901,000			

		Test Year 2017 Receipts of Test Year 2017 Billings
	General Customers	$
LagRate-8	Service Charge	33,966,000
LagRate-8	Volume Charge	182,213,000
	Total General Customers	216,179,000
	City	
LagRate-8	Service Charge	3,919,000
LagRate-8	Volume Charge	7,830,000
	Total City	11,749,000
LagRate-8	Surcharge	0
	Total	227,928,000

		FY 2017 Receipts (a)	FY 2017 Billings (a)	Percent	FY 2018 Receipts (a)	FY 2018 Billings (a)	Percent	FY 2019 Billings (a)	FY 2020 Billings (a)
LagRate-8	Current Year	216,179,000	256,441,000	84.30%	236,119,000	280,093,000	84.30%	#N/A	#N/A
LagRate-8	First Prior Year	24,203,000	242,034,000	10.00%	25,644,000	256,441,000	10.00%		
LagRate-8	Second Prior Year	4,881,000	244,052,000	2.00%	4,841,000	242,034,000	2.00%		
		245,263,000			266,604,000				

(a) Excludes wholesale

(1)	(2)	(3)	(4)	(5)
Meter Size inches	Meter Code	Adjustment Factor % LagRate-9	Gen Svc Residential Service Charge $/Bill LagRate-2 x Col. (3)	Discount Residential Service Charge (a) $/Bill LagRate-2 x Col. (3)
5/8	R	104.9%	6.62	5.00
3/4	Z	104.9%	7.57	5.70
1	Q	104.9%	9.94	7.50
1 1/4	Y	104.9%	12.88	9.70
1 1/2	P	104.9%	15.17	11.40
2	X	104.9%	22.29	16.70
3	O	104.9%	37.96	28.50
4	W	104.9%	66.41	49.80
6	N	104.9%	128.10	96.10
8	V	104.9%	199.31	149.50
10	E	104.9%	289.45	217.10
12	T	104.9%	503.22	377.40
14	H	104.9%	536.37	402.30

	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
		LagRate-2 x Column (3)		
General Service Volume Cha	41.65	36.36	28.29	27.47
Discount Volume Charge (a)	31.23	27.27	21.22	20.60

Meter Size inches	Meter Code	Adjustment Factor % LagRate-9	Gen Svc Non Res Service Charge $/Bill LagRate-2 x Col. (3)	Discount Non-Res Service Charge (a) $/Bill LagRate-2 x Col. (3)
5/8	R	104.9%	6.62	5.00
3/4	Z	104.9%	7.57	5.70
1	Q	104.9%	9.94	7.50
1 1/4	Y	104.9%	12.88	9.70
1 1/2	P	104.9%	15.17	11.40
2	X	104.9%	22.29	16.70
3	O	104.9%	37.96	28.50
4	W	104.9%	66.41	49.80
6	N	104.9%	128.10	96.10
8	V	104.9%	199.30	149.50
10	E	104.9%	289.44	217.10
12	T	104.9%	503.18	377.40
14	H	104.9%	536.35	402.20

	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
		LagRate-2 x Column (3)		
General Service Volume Cha	41.65	36.36	28.29	27.47
Discount Volume Charge (a)	31.23	27.27	21.22	20.60

Fire Protection

Connection Size	Monthly Service Charge
Up Through 4	25.57
6	46.63
8	69.16
10	102.25
12	154.71

(a) Discount rate applies to Senior Citizens, and Charities.
A 5% discount applies to the Housing Authority.

TABLE 23

COMPARISON OF TEST YEAR COSTS OF SERVICE AND ADJUSTED COST OF SERVICE WITH REVENUES UNDER EXISTING RATES TEST YEAR 2017

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	4,223,632	5,644,000	4,331,000	2.5%
2	Residential	146,313,385	147,936,000	151,364,000	3.5%
3	Commercial	44,324,619	45,984,000	47,049,000	6.1%
4	Industrial	2,934,619	2,945,000	3,013,000	2.7%
5	Public Utilities	341,172	337,000	345,000	1.1%
6	Subtotal General Service	198,137,427	202,846,000	206,102,000	4.0%
7	Housing Authority	5,743,830	6,532,000	6,349,000	10.5%
8	Charities & Schools	5,244,056	7,354,000	5,643,000	7.6%
9	Hospitals & University	6,656,340	9,614,000	7,377,000	10.8%
10	Hand Billed	15,615,702	18,947,000	19,386,000	24.1%
11	City Leased	263,952	306,000	313,000	18.6%
12	Scheduled (Flat Rate)	949	0	0	-100.0%
13	City	7,528,147	7,956,000	8,140,000	8.1%
	Fire Protection				
14	Private	3,359,951	3,203,000	3,277,000	-2.5%
	Public				
15	Standard Pressure	8,162,000	7,448,000	7,621,000	-6.6%
16	High Pressure (b)	0	2,000	0	NA
17	Subtotal Public Fire Protection	8,162,000	7,450,000	7,621,000	-6.6%
18	Subtotal Retail Service	250,712,354	264,206,000	264,208,000	5.4%
19	Bucks County Wholesale Service	0	0	0	#DIV/0!
20	Aqua PA	3,556,897	3,070,000	3,070,000	-13.7%
21	Total Wholesale	3,556,897	3,070,000	3,070,000	-13.7%
22	Total System	254,269,251	267,276,000	267,278,000	5.1%

(a) Revenue Under Existing Rates calculation:

(b) Reflects gradual decommissioning of the system.

	Fiscal Year Ending June 30							
	2015 Billings $1,000 LagRate-4	2015 Adjusted Billings (1) $1,000	2016 Billings $1,000 LagRate-4	2016 Adjusted Billings (1) $1,000	2,017 Billings $1,000 LagRate-4	2017 Adjusted Billings (1) $1,000	2017 Receipts $1,000	
Test Year Revenues under existing rates:		2.00%		10.00%		84.30%		
Senior Citizens	4,517	4,517	4,425	4,425	4,378	4,378	4,224	
Residential	154,175	154,175	153,248	153,248	151,726	151,726	146,313	
Commercial	47,174	47,174	46,143	46,143	45,987	45,987	44,325	
Industrial	3,039	3,039	3,050	3,050	3,047	3,047	2,935	
Public Utilities	388	388	354	354	354	354	341	
Housing Authority	6,212	6,212	5,959	5,959	5,959	5,959	5,744	
Charities & Schools	5,281	5,281	5,449	5,449	5,449	5,449	5,244	
Hospitals & Universities	6,522	6,522	6,920	6,920	6,920	6,920	6,656	
Hand Billed	16,458	16,458	16,211	16,211	16,211	16,211	15,616	
City Leased Property	285	285	274	274	274	274	264	
Scheduled (Flat Rate)	1	1	1	1	1	1	1	
City	7,720	7,720	7,528	7,528	7,528	7,528	7,528	No Lag
Public Fire Protection	8,162	8,162	8,162	8,162	8,162	8,162	8,162	No Lag
Private Fire Protection	2,727	2,727	3,505	3,505	3,505	3,505	3,505	No Lag
Subtotal	262,661	262,661	261,229	261,229	259,501	259,501	250,858	
Bucks County	0	0	0	0	0	0	0	0.08333 factor - One month lag
Aqua PA	3,756	3,756	3,692	3,692	3,692	3,692	3,692	0.08333 factor - One month lag
Total	266,416	266,416	264,921	264,921	263,193	263,193	254,550	

(1) Adjusted billings after 2014 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.

Reference A: Financial Planning Model - Customer
Reference B: SCOS Lagrate-25

FY 2017 PROPOSED RATES FOR GENERAL SERVICE

Service Charges

Meter Size inches	Existing Rates Water $/month	Existing Rates Wastewater $/month	Existing Rates Total Existing $/month	Proposed Rates Water $/month	Proposed Rates Wastewater $/month	Proposed Rates Total Proposed $/month
	LagRate-2	REF. A		LagRate-10	REF. B	
5/8	6.46	6.55	13.01	6.62	7.22	13.84
3/4	7.49	8.04	15.53	7.57	8.81	16.38
1	9.98	11.39	21.37	9.94	12.41	22.35
1 1/4	13.10	15.64	28.74	12.88	16.98	29.86
1 1/2	15.56	19.24	34.80	15.17	20.81	35.98
2	23.05	29.31	52.36	22.29	31.62	53.91
3	39.64	52.07	91.71	37.96	56.02	93.98
4	69.00	89.15	158.15	66.41	96.05	162.46
6	133.60	174.77	308.37	128.10	188.08	316.18
8	208.47	275.38	483.85	199.31	296.11	495.42
10	302.43	398.07	700.50	289.45	428.16	717.61
12	530.00	715.77	1,245.77	503.22	768.19	1,271.41

Quantity Charges

Water Usage		Existing $/Mcf LagRate-2	Proposed $/Mcf LagRate-10
First	2 Mcf	39.05	41.65
Next	98 Mcf	31.54	36.36
Next	1,900 Mcf	28.95	28.29
Over	2,000 Mcf	21.98	27.47
Wastewater Usage			
Per Mcf		28.07	30.99

Surcharge Rates

BOD ($/lb in excess of 250 mg/l)	0.350	0.354
SS ($/lb in excess of 350 mg/l)	0.332	0.377

TABLE 24

PROPOSED WATER RATES

Service Charge

ASSUMES ACROSS THE BOARD INCREASE

Meter Size inches	Monthly Charge $ LagRate-12	FY 2018		FY 2019		FY 2020	
5/8	6.62	7.29	110.12%	#N/A	#N/A	#N/A	#N/A
3/4	7.57	8.34	110.17%	#N/A	#N/A	#N/A	#N/A
1	9.94	10.95	110.16%	#N/A	#N/A	#N/A	#N/A
1 1/4	12.88	14.19	110.17%	#N/A	#N/A	#N/A	#N/A
1 1/2	15.17	16.71	110.15%	#N/A	#N/A	#N/A	#N/A
2	22.29	24.55	110.14%	#N/A	#N/A	#N/A	#N/A
3	37.96	41.81	110.14%	#N/A	#N/A	#N/A	#N/A
4	66.41	73.15	110.15%	#N/A	#N/A	#N/A	#N/A
6	128.10	141.10	110.15%	#N/A	#N/A	#N/A	#N/A
8	199.31	219.53	110.15%	#N/A	#N/A	#N/A	#N/A
10	289.45	318.81	110.14%	#N/A	#N/A	#N/A	#N/A
12	503.22	554.27	110.14%	#N/A	#N/A	#N/A	#N/A

Quantity Charge

Monthly Water Usage		Charge Per Mcf $ LagRate-12						
First	2 Mcf	41.65	45.88	110.16%	#N/A	#N/A	#N/A	#N/A
Next	98 Mcf	36.36	40.05	110.15%	#N/A	#N/A	#N/A	#N/A
Next	1,900 Mcf	28.29	31.16	110.14%	#N/A	#N/A	#N/A	#N/A
Over	2,000 Mcf	27.47	30.26	110.16%	#N/A	#N/A	#N/A	#N/A

Private Fire Service

Size of Meter or Connection:	Monthly Charge $	Rates-3	Proposed *		Proposed * 1.1015		#VALUE!	
	Rates-3*1.049(LagRate-9)		1.1015(LagRate-9)		#VALUE!		#VALUE!	
4" or less	25.57	24.38	28.16	110.13%	#N/A	#N/A	#N/A	#N/A
6"	46.63	44.45	51.36	110.14%	#N/A	#N/A	#N/A	#N/A
8"	69.16	65.93	76.18	110.15%	#N/A	#N/A	#N/A	#N/A
10"	102.25	97.47	112.62	110.14%	#N/A	#N/A	#N/A	#N/A
12"	154.71	147.48	170.41	110.15%	#N/A	#N/A	#N/A	#N/A

Public Fire Protection

Standard Pressure:	$7,621,000	Annually	LagRate-11	8,002,000	105.00%	8,402,000	105.00%	8,738,000	104.00%
High Pressure:	$0	Annually	LagRate-11	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!

Mcf - thousand cubic feet

Reference: LINKS - WREV11 PROJECTED CHECK 20111219.XLS

	(1)	(2)	(3)	(4)	(5)	(6)
	Total Water Service Charges $	Total Water Volume Charges $	Total Water Billings $ (1)+(2)	Percent of Total Billings %	Total Water Billings Excluding Senior Citizens $ (1)+(2)	Percent of Total Billings Excluding Senior Citizens %
Senior Citizens	1,141,000	3,278,000	4,419,000	1.67%	-	0.00%
Residential	31,392,000	122,491,000	153,883,000	58.24%	153,883,000	72.61%
Commercial	4,109,000	43,784,000	47,893,000	18.12%	47,893,000	22.60%
Industrial	196,000	2,891,000	3,087,000	1.17%	3,087,000	1.46%
Public Utilities	39,000	336,000	375,000	0.14%		
Housing Authority	514,000	5,573,000	6,087,000	2.30%		
Charities & Schools	544,000	5,180,000	5,724,000	2.17%		
Hospitals & Universities	254,000	6,804,000	7,058,000	2.67%	7,058,000	3.33%
Hand Billed	187,000	16,396,000	16,583,000	6.28%		
Scheduled (Flat Rate)	0	0	0	0.00%		
City Leased	34,000	260,000	294,000	0.11%		
City	397,000	7,141,000	7,538,000	2.85%		
Fire Protection (Private)	3,339,000	339,000	3,678,000	1.39%		
Fire Protection (Public)	7,621,000	0	7,621,000	2.88%		
	49,767,000	214,473,000	264,240,000		211,921,000	

File: Copy of WCOS15_17_Philadelphia Water Department (PWD) **P.N. 135647.0100** **DRAFT - for Discussion Only** **Test Year 2017** **Budget Yr 2015** **Ver. 1a**
WSERVCHGS - Components of Water Service Charges **December 17, 2015 11:40 a.m.** **LagRate-15**

					FY 2016 Water Service Charge				FY 2017 Water Service Charge				FY 2018 Water Service Charge				FY 2019 Water Service Charge			
		Equivalent Bills	Equivalent Meters	Equivalent Services	Billing Costs $	Metering Costs $	Warranty Costs $	Total Costs $	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	Rates-2				4.4966	1.8129	0.0000													
Units	Rates-2				$/equiv bill	$/equiv mtr/bill	$/equiv srv/bill													
		Units-3	Units-4	Units-4												LagRate-13				LagRate-13
5/8 Inch Mete	2016 COS Service Charge	1.0	1.0	1.0	4.4966	1.8129	0.0000		4.4966	1.8129	0.0000		4.4966	1.8129	0.0000		4.4966	1.8129	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9 (a)				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				4.72	1.90	0.00	6.62	5.20	2.09	0.00	7.29	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				3.54	1.43	0.00	4.97	3.90	1.57	0.00	5.47	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
3/4 Inch Mete	2016 COS Service Charge	1.0	1.5	1.0	4.4966	2.7194	0.0000		4.4966	2.7194	0.0000		4.4966	2.7194	0.0000		4.4966	2.7194	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				4.72	2.85	0.00	7.57	5.20	3.14	0.00	8.34	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				3.54	2.14	0.00	5.68	3.90	2.36	0.00	6.26	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
1 Inch Meter:	2016 COS Service Charge	1.1	2.5	1.1	4.9463	4.5323	0.0000		4.9463	4.5323	0.0000		4.9463	4.5323	0.0000		4.9463	4.5323	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				5.19	4.75	0.00	9.94	5.71	5.24	0.00	10.95	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				3.90	3.56	0.00	7.46	4.28	3.93	0.00	8.21	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
1-1/4 Inch Me	2016 COS Service Charge	1.2	3.8	1.2	5.3959	6.8890	0.0000		5.3959	6.8890	0.0000		5.3959	6.8890	0.0000		5.3959	6.8890	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				5.65	7.23	0.00	12.88	6.23	7.96	0.00	14.19	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				4.24	5.42	0.00	9.66	4.67	5.97	0.00	10.64	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
1-1/2 Inch Me	2016 COS Service Charge	1.2	5.0	1.2	5.3959	9.0645	0.0000		5.3959	9.0645	0.0000		5.3959	9.0645	0.0000		5.3959	9.0645	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				5.66	9.51	0.00	15.17	6.24	10.47	0.00	16.71	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				4.25	7.13	0.00	11.38	4.68	7.85	0.00	12.53	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
2 Inch Meter:	2016 COS Service Charge	1.5	8.0	2.1	6.7449	14.5032	0.0000		6.7449	14.5032	0.0000		6.7449	14.5032	0.0000		6.7449	14.5032	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				7.08	15.21	0.00	22.29	7.79	16.76	0.00	24.55	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				5.31	11.41	0.00	16.72	5.84	12.57	0.00	18.41	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
3 Inch Meter:	2016 COS Service Charge	2.0	15.0		8.9932	27.1935	0.0000		8.9932	27.1935	0.0000		8.9932	27.1935	0.0000		8.9932	27.1935	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				9.43	28.53	0.00	37.96	10.39	31.42	0.00	41.81	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				7.07	21.40	0.00	28.47	7.79	23.57	0.00	31.36	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
4 Inch Meter:	2016 COS Service Charge	4.0	25.0		17.9864	45.3225	0.0000		17.9864	45.3225	0.0000		17.9864	45.3225	0.0000		17.9864	45.3225	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				18.87	47.54	0.00	66.41	20.78	52.37	0.00	73.15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				14.15	35.66	0.00	49.81	15.58	39.28	0.00	54.86	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
6 Inch Meter:	2016 COS Service Charge	7.0	50.0		31.4762	90.6450	0.0000		31.4762	90.6450	0.0000		31.4762	90.6450	0.0000		31.4762	90.6450	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				33.01	95.09	0.00	128.10	36.37	104.73	0.00	141.10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				24.76	71.32	0.00	96.08	27.28	78.55	0.00	105.83	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
8 Inch Meter:	2016 COS Service Charge	10.0	80.0		44.9660	145.0320	0.0000		44.9660	145.0320	0.0000		44.9660	145.0320	0.0000		44.9660	145.0320	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				47.17	152.14	0.00	199.31	51.96	167.57	0.00	219.53	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				35.37	114.11	0.00	149.48	38.97	125.68	0.00	164.65	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
10 Inch Meter	2016 COS Service Charge	15.0	115.0		67.4490	208.4835	0.0000		67.4490	208.4835	0.0000		67.4490	208.4835	0.0000		67.4490	208.4835	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				70.75	218.70	0.00	289.45	77.93	240.88	0.00	318.81	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				53.06	164.03	0.00	217.09	58.45	180.66	0.00	239.11	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
																LagRate-13				LagRate-13
12 Inch Meter	2016 COS Service Charge	20.0	215.0		89.9320	389.7735	0.0000		89.9320	389.7735	0.0000		89.9320	389.7735	0.0000		89.9320	389.7735	0.0000	
	Times Combined Rate Increase and Lag Facto Calc from LagRate-9				1.0490	1.0490	1.0490		1.1554	1.1554	1.1554		#N/A	#N/A	#N/A		#N/A	#N/A	#N/A	
	Adjusted COS Service Charge (Rounded)				94.35	408.87	0.00	503.22	103.93	450.34	0.00	554.27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Times (100%-25%) Charities Discount Retcos-4				70.77	306.65	0.00	377.42	77.94	337.76	0.00	415.70	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

(a) Reference: LagRate-9 #VALUE!

Rate Components of Water Service Charges

Black & Veatch	Regular Rates Metering Costs $/bill	Regular Rates Billing Costs $/bill	Regular Rates Warranty Costs $/bill	Regular Rates Total $/bill	Discount Rates Metering Costs $/bill	Discount Rates Billing Costs $/bill	Discount Rates Warranty Costs $/bill	Discount Rates Total $/bill	Reference
FY 2016 Service Charges									
5/8 Inch Meter:	1.90	4.72	0.00	6.62	1.43	3.54	0.00	4.97	LagRate-15
3/4 Inch Meter:	2.85	4.72	0.00	7.57	2.14	3.54	0.00	5.68	LagRate-15
1 Inch Meter:	4.75	5.19	0.00	9.94	3.56	3.90	0.00	7.46	LagRate-15
1-1/4 Inch Meter:	7.23	5.65	0.00	12.88	5.42	4.24	0.00	9.66	LagRate-15
1-1/2 Inch Meter:	9.51	5.66	0.00	15.17	7.13	4.25	0.00	11.38	LagRate-15
2 Inch Meter:	15.21	7.08	0.00	22.29	11.41	5.31	0.00	16.72	LagRate-15
3 Inch Meter:	28.53	9.43	0.00	37.96	21.40	7.07	0.00	28.47	LagRate-15
4 Inch Meter:	47.54	18.87	0.00	66.41	35.66	14.15	0.00	49.81	LagRate-15
6 Inch Meter:	95.09	33.01	0.00	128.10	71.32	24.76	0.00	96.08	LagRate-15
8 Inch Meter:	152.14	47.17	0.00	199.31	114.11	35.37	0.00	149.48	LagRate-15
10 Inch Meter:	218.70	70.75	0.00	289.45	164.03	53.06	0.00	217.09	LagRate-15
12 Inch Meter:	408.87	94.35	0.00	503.22	306.65	70.77	0.00	377.42	LagRate-15
FY 2017 Service Charges									
5/8 Inch Meter:	2.09	5.20	0.00	7.29	1.57	3.90	0.00	5.47	LagRate-15
3/4 Inch Meter:	3.14	5.20	0.00	8.34	2.36	3.90	0.00	6.26	LagRate-15
1 Inch Meter:	5.24	5.71	0.00	10.95	3.93	4.28	0.00	8.21	LagRate-15
1-1/4 Inch Meter:	7.96	6.23	0.00	14.19	5.97	4.67	0.00	10.64	LagRate-15
1-1/2 Inch Meter:	10.47	6.24	0.00	16.71	7.85	4.68	0.00	12.53	LagRate-15
2 Inch Meter:	16.76	7.79	0.00	24.55	12.57	5.84	0.00	18.41	LagRate-15
3 Inch Meter:	31.42	10.39	0.00	41.81	23.57	7.79	0.00	31.36	LagRate-15
4 Inch Meter:	52.37	20.78	0.00	73.15	39.28	15.58	0.00	54.86	LagRate-15
6 Inch Meter:	104.73	36.37	0.00	141.10	78.55	27.28	0.00	105.83	LagRate-15
8 Inch Meter:	167.57	51.96	0.00	219.53	125.68	38.97	0.00	164.65	LagRate-15
10 Inch Meter:	240.88	77.93	0.00	318.81	180.66	58.45	0.00	239.11	LagRate-15
12 Inch Meter:	450.34	103.93	0.00	554.27	337.76	77.94	0.00	415.70	LagRate-15
FY 2018 Service Charges									
5/8 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
3/4 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
1 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
1-1/4 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
1-1/2 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
2 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
3 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
4 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
6 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
8 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
10 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
12 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
FY 2019 Service Charges									
5/8 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
3/4 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
1 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
1-1/4 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
1-1/2 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
2 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
3 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
4 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
6 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
8 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
10 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15
12 Inch Meter:	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	LagRate-15