RESPONSE TO PUBLIC ADVOCATE'S INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS

PA-ADV-1. PLEASE EXPLAIN THE MAJOR REASONS FOR ANY PROPOSED RATE INCREASE, INCLUDING THE PERCENTAGE INCREASE IN REVENUE REQUIREMENTS ATTRIBUTABLE TO EACH COST FACTOR LISTED.

RESPONSE:

In addition to normal inflationary pressures, there are several major factors driving the Philadelphia Water Department's (PWD or Water Department) required revenue adjustments:

- Rising workforce costs including:
 - o An increase in personnel cost of approximately \$4 million per year.
 - Additional costs pressures associated with personnel-related increases in pensions and benefits.
- Shifts of cost components from capital to operating:
 - In accordance with City Policy, fringes for personnel associated with the Capital Improvement Program moved from capital to operating equating to approximately \$12.5 million shift in Fiscal Year 2018.
- Continued costs related to the Consent Order Agreement (COA):
 - The Stormwater Management Incentive Program (SMIP) / Greened Acre
 Retrofit Program (GARP) funding is being increased by \$5 million in Fiscal
 Year 2018 and \$10 million per year thereafter.
 - This is due to the success of the program which helps PWD meet the requirements of the COA; and
 - The lower cost associated with SMIP/GARP projects versus the cost of public greened acres costs.

- In order to support ongoing green stormwater infrastructure (GSI)
 implementation and maintenance, PWD is also expanding its green GSI
 capabilities and capacity by increasing staff in planning, environmental service,
 and maintenance.
- Decreased operating revenues due to the following:
 - Decline in General Service Customer consumption resulting in approximately \$11.3 million decrease in revenue over the rate period (FY 2019 to FY 2021);
 and
 - Reduced revenues resulting from increased stormwater credits of approximately \$0.2 million in FY 2019, \$1.1 million in FY 2020, and \$2.2 million in FY 2021 (or a total of \$3.5 million over the rate period).

PWD examines its revenue requirements on a holistic basis and they reflect the overall needs of the Water Department over Fiscal Years 2019, 2020 and 2021 (the Rate Period). As such, the Water Department did not consider the individual impact of each driver above.

As detailed in PWD Statement No. 9A, PWD is proposing the following overall percentage increase in revenue requirements for the Rate Period:

Fiscal Year	Revenue Adjustment
2019	1.60%
2020	4.50%
2021	4.50%

Note: the above revenue adjustments are only effective for 10 months during the associated fiscal year.

RESPONSE PROVIDED BY: Black & Veatch Management Consulting, LLC

1	PA-ADV-2.	PLEASE PROVIDE COPIES OF ALL WATER, WASTEWATER,
2		AND STORM WATER COST OF SERVICE STUDIES TO BE
3		INCLUDED IN THE PWD'S APPLICATION IN MICROSOFT
4		EXCEL FORMAT WITH ALL FORMULAS INTACT. ALSO
5		INCLUDE ALL SUPPORTING SCHEDULES AND WORKPAPERS
6		IN EXCEL FORMAT WITH ALL FORMULAS INTACT.
7	RESPONSE:	
8	The Microsoft Excel	based Computer Models included in PWD's application will be made
9	available to Participa	nts that execute a confidentially agreement. The Excel-based models,
10	which include the fo	lowing Black & Veatch Management Consulting, LLC (Black & Veatch)
11	Cost of Service Wor	a papers (PWD Exhibit 6) are as follows:
12	1. Financial Plan	(Finplan17.xlsm)
13	2. Wastewater C	ost of Service (SCOS17_19.xlsm)
14	3. Water Cost of	Service (WCOS17_19.xlsm)
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16		
17	RESPONSE PROVID	ED BY: Black & Veatch Management Consulting, LLC
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PA-ADV-6. PLEASE PROVIDE CALCULATIONS OF ACTUAL CURRENT YEAR COLLECTION FACTORS FOR EACH FISCAL YEAR FY 2015 TO DATE.

RESPONSE:

The annual report generated by RFC, called Report 4-Payment Patterns, addresses this request. The billings and collections for fiscal years 2015 and 2016 are shown below, and can be found in the enclosed PDF document, PA-ADV-6 Attachment.

				Billing Year		Billing year +1	Billing year +2 and beyond	
Fiscal Year	Туре	Billings	Payments (All)	FY2	016 (Payments <=12 Months)	FY2017 (Payments 13-24 Months)	FY2018 and beyond (Payments 25 and greater)	
FY16	Total*	\$ 612,315,212.94	\$527,702,482.84	\$	527,196,433.22			
FY16	Non-SWO*	\$ 593,155,610.61	\$515,609,813.75	\$	515,110,139.47			
FY16	SWO*	\$ 19,159,602.33	\$ 12,092,669.09	\$	12,086,293.75			
FY16	Total percent collected**		86.18%		86.10%			
FY16	Non-SWO collected**		86.93%		86.84%		1.51	
FY16	SWO collected**		63.12%		63.08%		(2)	
FY16	Percent of Remainder Collected						1.50	

*includes City, less PWD, **assumes City 100%, excludes PWD

				Billing Year	Billing year +1	Billing year +2 and beyond
Fiscal Year	Туре	Billings	Payments (All)	FY2015 (Payments <=12 Months)	FY2016 (Payments 13-24 Months)	FY 2017 and beyond (Payments 25 and greater)
FY15	Total*	\$ 614,256,985.07	\$579,607,855.73	\$ 529,025,536.86	\$ 50,582,318.88	
FY15	Non-SWO*	\$ 594,133,652.95	\$566,005,717.06	\$ 517,049,680.84	\$ 48,956,036.23	
FY15	SWO*	\$ 20,123,332.12	\$ 13,602,138.67	\$ 11,975,856.02	\$ 1,626,282.65	
FY15	Total percent collected**		94.36%	86.12%	8.23%	
FY15	Non-SWO collected**		95.27%	87.03%	8.24%	
FY15	SWO collected**		67.59%	59.51%	8.08%	120
FY15	Percent of Remainder Collected			-	59.35%	

PUBLIC ADVOCATE ADV SET #1 - 7

*includes City, less PWD, **assumes City 100%, excludes PWD

RESPONSE PROVIDED BY: Raftelis Financial Consultants, Inc.

1	PA-ADV-8.	PLEASE PROVIDE AN UPDATE TO PA-EXE-43 FROM THE 2016 RATE
2		PROCEEDING REGARDING "THE DEPARTMENT'S APPROVED BUDGET
3		DETAIL" FOR THE LAST THREE FISCAL YEARS ENDED AND THE
4		CURRENT FISCAL YEAR.
5		
6	RESPONSE:	
7	For inform	ation regarding the City of Philadelphia, Philadelphia Water Department approved
8	budget deta	ail please reference the following website: http://www.phila.gov/finance/reports-
9	BudgetDet	<u>ail.html</u> .
10		
11	RESPONSE	PROVIDED BY: Melissa LaBuda, Philadelphia Water Department
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PA-ADV-10. PLEASE PROVIDE A SCHEDULE SIMILAR TO THE REPLY TO PA-EXE-45 IN THE 2016 RATE PROCEEDING REGARDING "RATE PROCESS EXPENSES" FOR THE PROPOSED RATE CASE.

RESPONSE:

Rate Process Budgeted Expenses	
Water Rate Board	Budget (\$)
City Provided Lawyer	120,000
Public Advocate, Community Legal Services	325,000
Hearing Officer, Nancy Brockway	61,980
Financial Consulting, Amawalk Consulting Group	76,180
Court Reporting, TBD	25,000
Remaining Budget - TBD	361,840
sub-total	970,000
Water Department Consultants and Experts	Budget (\$)
Cost of Service, Black & Veatch	1,043,000
Cost of Service Reporting, RFC	200,000
Legal Services, Andre C Dasent, PC	150,000
sub-total	1,393,000
Total	2,363,000

RESPONSE PROVIDED BY: Melissa LaBuda, Philadelphia Water Department

PA-ADV-14. PLEASE PROVIDE A "BRINGDOWN" OF THE 2016 RATE PROCEEDING FINANCIAL PLAN SIMILAR TO THE REPLY TO PA-EXE-103 IN THE 2016 RATE PROCEEDING, SETTING FORTH PWD'S ASSUMPTIONS, ACTUAL RESULTS, AND CALCULATED DIFFERENCES, FOR FY 2016 AND FY 2017. IN RESPONDING TO THIS REQUEST: (1) UTILIZE PWD'S ASSUMPTIONS FOR FY 2016 SET FORTH IN PWD'S FILED FINANCIAL PLAN AS ORIGINALLY SUBMITTED TO THE BOARD ON FEBRUARY 6, 2016; AND, (2) UTILIZE THE ASSUMPTIONS FOR FY 2017 SET FORTH IN APPENDIX A, TABLE C-1 OF THE REPORT OF THE BOARD ON PWD PROPOSED RATE CHANGES, FY 17, FY 18, DATED AS OF JUNE 7, 2016.

RESPONSE:

Attachment PA-ADV-14.pdf presents the requested "BRINGDOWN."

RESPONSE PROVIDED BY: Black & Veatch Management Consulting, LLC

PA-ADV-15. PLEASE PROVIDE THE ACTUAL AND BUDGETED FRINGE BENEFITS EXPENSE DATA FOR THE LAST THREE FISCAL YEARS AND THE CURRENT FISCAL YEAR TO DATE BROKEN DOWN BY TYPE OF BENEFIT.

RESPONSE:

Please see table provided below. Documentation regarding City of Philadelphia, Bill No. 170958 has been provided in response attachment PA ADV 13.

Water Fund								
32-020								
Operating		FY2015	FY 2016	FY2016	FY 2017	FY 2017	FY 2018	FY 2018
							QCMR (Original	
						Preliminary	Budget Plus Transfer	Year To Date
Fringe	Sobj	Actual	Budget	Actual	Budget	Final	Ordinance)	(2018 Jan. 12)
							Í	· ·
Flex Cash	0186	29,595	30,000	26,548	35,000	31,161	39,400	33,081
WC-Disability	0187	1,859,758	2,400,000	1,771,007	2,400,000	2,172,410	2,813,300	1,458,486
WC-Medical	0188	1,756,884	2,000,000	2,018,262	2,000,000	1,897,752	2,475,700	1,362,965
Medicare	0189	1,640,330	1,800,000	1,646,071	1,900,000	1,815,972	2,202,300	1,042,216
Pens Obligation Bond	0190	11,415,451	12,100,000	12,468,686	12,093,775	13,362,362	14,038,400	5,467,469
Pension	0191	40,861,335	45,700,000	46,646,526	52,384,383	55,552,438	61,513,775	59,098,158
FICA	0192	7,002,249	7,250,053	7,025,657	7,600,000	6,929,697	8,809,000	4,451,959
Health-Medical	0193	35,231,175	38,717,895	33,970,838	38,862,895	38,950,187	44,466,348	20,513,458
Life	0194	141,612	153,768	175,674	178,768	182,702	218,300	125,335
Legal	0195	298,656	328,546	331,275	348,546	343,560	407,400	218,883
Unemployment Compensation Ins.	0196	275,522	375,000	253,870	375,000	269,982	375,000	-
Tool Allow	0197	57,350	60,000	56,800	65,000	58,500	73,000	-
Sick Pay	0199	205,013	-	230,530	34,917	351,696		298,867
Total	Total	100,774,930	110,915,262	106,621,744	118,278,284	121,918,419	137,438,148	94,070,877

RESPONSE PROVIDED BY: Melissa LaBuda, Philadelphia Water Department

PA-ADV-17. PLEASE PROVIDE AN ANALYSIS SHOWING THE ACTUAL AND BUDGETED CAPITAL IMPROVEMENT PROGRAM EXPENDITURES FOR THE THREE MOST RECENT FISCAL YEARS ENDED AND THE CURRENT FISCAL YEAR TO DATE.

RESPONSE:

Please see table below for forecasted and actual capital program expenditures.

		Rate Case	Capital Project
Fiscal Year		Projection	Expenses
2015	\$	(174,109,000)	\$ (175,671,572)
2016	\$	(242,553,000)	\$ (178,695,801)
2017 1	\$	(282,000,000)	\$ (239,750,047)
2018 2,3	\$	(300,000,000)	\$ (123,729,229)
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- (1) Fiscal year 2017 project expense data is preliminary.
- (2) Fiscal year 2018 capital expense as of 01/12/2018.
- (3) Fiscal year 2018 outstanding encumbrances total approximately \$570 million.

RESPONSE PROVIDED BY: Melissa LaBuda, Philadelphia Water Department

PA-ADV-18. PLEASE PROVIDE A SCHEDULE SHOWING ACTUAL FISCAL YEAR-END RESIDUAL FUND BALANCES FOR FY 2015, FY 2016, FY 2017 AND THE BUDGETED/FORECASTED BALANCES FOR THE SAME TIME PERIOD. PROVIDE AN EXPLANATION OF THE REASONS FOR ANY ACTUAL TO BUDGET VARIANCE EXCEEDING 20 PERCENT.

RESPONSE:

Please see table below for forecasted and year-end balances.

		Rate Case		Year-End			
Fiscal Year		Projection		Balance			
2015	\$	15,172,000	\$	14,993,329			
2016	\$	15,255,000	\$	15,188,580			
2017 1	\$	15,129,000	\$	15,262,261			
(1) Fiscal year 2017 balance is preliminary.							

RESPONSE:

PA-ADV-19. PLEASE PROVIDE A SCHEDULE COMPARING ACTUAL FISCAL YEAR-END BALANCES FOR THE RATE STABILIZATION FUND FOR FY 2015, FY 2016, FY 2017 AND THE BUDGETED/FORECASTED BALANCES FOR THE SAME TIME PERIOD. PROVIDE AN EXPLANATION OF THE REASONS FOR ANY ACTUAL TO BUDGET VARIANCE EXCEEDING 20 PERCENT.

Rate Case Projection Balance
2015 \$ 206,206,000 \$ 206,446,966
2016 \$ 169,306,000 \$ 205,760,628
2017 \$ 153,706,000 \$ 201,759,397

(1) Fiscal year 2017 balance is preliminary.

Note - the variance of the fund balance represent the cumulative impact of variances in revenues, operating expenses, debt service payments, transfers, etc. With each subsequent fiscal year, any variance from the previous period will contribute to the variance in the current period. In addition, interest earnings associated from the Rate Stabilization Fund (RSF) further contribute to the difference between projected and actual year-end balances.

The annual variances, not including interest earnings associated with the RSF, for FY 2016 and FY 2017 are detailed in response attachment PA-ADV-14.pdf. Please refer to the "IMPACT TO PROJECTED RATE STABILIZATION FUND TRANSFER BY COMPONENT" presented on page 3 of the PDF file. The variance in annual RSF Transfer is presented along with the estimated interest earnings in the table below.

Fiscal Year RSF Transfer Variance*		ance* RSF - Estimated Interest Earnings		Total		
2016	\$	35,270,668	\$	942,994	\$	36,213,662
2017	\$	11,036,608	\$	562,161	\$	11,598,769
*From PA-ADV-14.PDF						

1	RESPONSE PROVIDED BY:	Melissa LaBuda,	Philadelphia	Water Depart	tment and B	lack &
2	Veatch Management Consulting, LL	C.				
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PA-ADV-25. REGARDING PAYROLL EXPENSES, PLEASE PROVIDE:

- A. THE CURRENT FISCAL YEAR NUMBER OF AUTHORIZED

 POSITIONS FUNDED BY THE DEPARTMENT'S OPERATING FUND

 (VACANT AND FILLED);
- B. THE PLAN BY PWD AND WRB TO FILL ANY VACANT POSITIONS;
 AND
- C. THE NUMBER OF EMPLOYEES FOR EACH MONTH FOR THE THREE MOST RECENT FISCAL YEARS ENDED THROUGH THE MOST RECENT DATE AVAILABLE.

RESPONSE:

- A. Authorized positions funded by the Water Operating Fund in Fiscal Year 2018 total 2,494. As of September 30th, 2017, filled positions totaled 2,242.
- B. PWD would like to have very few vacancies on any given month. Due to the extremely long time period required to fill a vacancy in the Civil Service system (up to 6 months), reaching a vacancy number below 100 is unlikely now or in the immediate future. What we have done over the past few years and will continue to do is to work with the City's Office of Human Resources to align civil service test schedules with our anticipated vacancies. On any given date we may have 75-100 vacancies for which there are no eligible lists to hire from. We have also worked with OHR to amend job specifications to better align them with the current labor pool. Additionally, we are working with organizations such as Community College of Philadelphia to assist with training to provide qualified candidates for some of our difficult to fill positions such as electronic and instrumentation techs.

C. Below please find the three most recent fiscal years and the first quarter of FY 2018.Monthly data is not available.

Water Fund								
Full Time Position Summary								
Operating	F	Y18	FY1	7	F	/16	F)	/15
	9/30/2017	Budget	Year-End	Budget	Year-End	Budget	Year-End	Budget
Office of Innovation & technology	85	97	81	85	73	86	72	81
Office of Fleet Management	49	58	52	55	47	55	44	55
Water Department	1,832	2,073	1,823	1,985	1,787	1,959	1,758	1,947
Revenue	245	232	244	254	230	247	231	251
Procurement	2	2	2	2	2	2	2	2
Law	29	32	29	31	26	27	23	32
Mayor's Office of Transportation	-	-	-	-	2	2	2	-
sub-total	2,242	2,494	2,231	2,412	2,167	2,378	2,132	2,368
Captial	F	Y18	FY1	7	F	FY16		/15
sub-total	258	337	244	310	220	304	218	289
Total	2,500	2,831	2,475	2,722	2,387	2,682	2,350	2,657

RESPONSE PROVIDED BY: Melissa LaBuda and Gerald Leatherman, Philadelphia Water Department

PA-ADV-27. PLEASE PROVIDE A SCHEDULE DETAILING PWD'S RATING HISTORY AND THE MOST RECENT RATING AGENCY REPORTS FOR THE DEPARTMENT.

RESPONSE:

The most recent rating agency reports are located on the following web-page:

<u>http://www.phila.gov/investor/Pages/bondRatings.aspx</u>. The reports for the most recent issuance are also provided in response attachment's ADV 26.

The ratings for the three most recent debt issuances are provided in the table below.

Debt Issuance	Moody's	S&P	Fitch
The City of Philadelphia, Water and Wastewater Revenue Refunding Bonds, Series 2017B	A1	A+	A+
The City of Philadelphia, Water and Wastewater Revenue Bonds, Series 2017A	A1	A+	A+
The City of Philadelphia, Water and Wastewater Revenue Bonds, Series 2016	A1	A+	A+
The City of Philadelphia, Water and Wastewater Revenue Bonds, Series 2015	A1	A	A+

PA-ADV-28. PLEASE PROVIDE A SCHEDULE DETAILING ACTUAL RATE

STABILIZATION FUND TRANSFERS FOR THE THREE MOST RECENT FISCAL YEARS.

RESPONSE:

Please see table provided below.

	Transfers from/ to Rate Stabilization		Deposit or
Fiscal Year		Fund	Withdrawal
2015	\$	21,456,000	Deposit
2016	\$	(1,629,000)	Withdrawal
2017 1	\$	(4,563,000)	Withdrawal
(1) Fiscal year 2017 is preliminary.			

PA-ADV-29. PLEASE PROVIDE AN UPDATE TO PA-EXE-73 IN THE 2016 RATE PROCEEDING REGARDING "CAPITAL ACCOUNT DEPOSITS".

RESPONSE:

Please see table below.

	Rate Case - Projected Contribution to Capital Account from Revenues (i.e Pay Go)	Net Property Plant and	Additional Year-End Transfer to Capital Account	Actual Total Transfer	
	(1)	(2)	(3)	(2) + (3)	
FY2015	\$ 57,397,000	\$ 20,704,920	\$ 18,211,080	\$ 38,916,00	00
FY2016	\$ 53,015,000	\$ 21,496,800	\$ 31,000,000	\$ 52,496,80	00
FY2017	\$ 52,145,000	\$ 22,302,330	\$ 31,300,606	\$ 53,602,93	36

PA-ADV-30. PLEASE PROVIDE A SCHEDULE DETAILING THE ACTUAL SENIOR

DEBT SERVICE REQUIREMENTS FOR FY 2018. YOUR RESPONSE

SHOULD PROVIDE, BUT NOT BE LIMITED TO, THE DEBT BALANCES,

STATED INTEREST RATE, INTEREST EXPENSE, AMORTIZATION OF

DEBT PREMIUM OR DISCOUNT, AND THE EFFECTIVE INTEREST RATE.

RESPONSE:

The projected senior debt service requirements reflected in the financial plan of the cost of service study are summarized in the table provided below.

FY 2018 DEBT SERVICE REQUIREMENTS (in thousands of dollars)			
Line			
No.	Description		<u>2018</u>
	SENIOR DEBT SERVICE		
	Revenue Bonds		
1	Outstanding Bonds		(185,756)
2	Pennvest Parity Bonds		(11,500)
3	Projected Future Bonds		(22,770)
4	Total Senior Debt Service (2)		(220,026)

Detailed debt service information is provided as part of the Excel-based financial plan model (Finplan17.xlsm) and included in the Black &Veatch Management Consulting, LLC Cost of Service Work papers DS-1 through DS-9. Please refer to PWD Exhibit 6 beginning on page 344. Note – principal and interest payments are presented in total.

The debt service reflects a cash based estimate of required debt service payments and does not include amortization of premiums or discounts. Any premiums and discounts received on actual bond issues are reflected in the proceeds deposited to the construction fund upon execution of the transaction.

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1	Note: Actual debt service payments for FY 2018 will not be available until after the end of the
2	fiscal year (June 30, 2018).
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4	RESPONSE PROVIDED BY: Black & Veatch Management Consulting, LLC
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PA-ADV-32. PLEASE EXPLAIN IN DETAIL HOW PWD PLANS TO FUND ITS CAPITAL PROGRAM OVER THE NEXT THREE YEARS.

RESPONSE:

The table below illustrates the projected flow of funds for PWD's construction fund over the next three fiscal years and shows both the source and applications of funds needed to fund PWD's capital program. Note – this table is an excerpt of Table C-8 which is provided in PWD Statement No. 9A Schedule BV-E1.

PROJECTED FLOW OF FUNDS - CAPITAL IMPROVEMENTS FUND (in thousands of dollars)

Line		Fiscal Year Ending June 30,		
No.	<u>Description</u>	2018	<u>2019</u>	2020
	Disposition of Bond Proceeds			
1	Proceeds From Sale of Bonds	-	285,000	295,000
	Transfers:			
2	Debt Reserve Fund (a)	-	-	7,953
3	Cost of Bond Issuance (b)	-	2,850	2,950
4	Construction Fund (c)	-	282,150	284,097
5	Total Issue	-	285,000	295,000
	Construction Fund			
6	Beginning Balance	392,111	136,329	146,699
7	Transfer From Bond Proceeds	-	282,150	284,097
8	Capital Account Deposit	23,061	35,767	36,983
9	Penn Vest Loan	-	-	-
10	Transfer from Residual Fund	38,500	20,200	25,700
11	Interest Income on Construction Fund	949	509	543
12	Total Available	454,621	474,954	494,022
13	Net Cash Financing Required	318,292	328,255	338,518
14	Ending Balance	136,329	146,699	155,504
	Debt Reserve Fund			
15	Beginning Balance	219,505	200,505	200,505
16	Transfer From Bond Proceeds	-	-	7,953
17	Debt Service Reserve Release	(19,000)	-	-
18	Ending Balance	200,505	200,505	208,458
19	Interest Income on Debt Reserve Fund	756	722	736

- (a) Amount of Debt Reserve Fund estimated based on outstanding and proposed debt service payments.
- (b) Cost of bonds issuance assumed at 1.0 percent of issue amount.
- (c) Deposits equal proceeds from sale of bonds less transfers to Debt Reserve Fund and Costs of Issuance.

As illustrated above, the Water Department expects that the Capital Improvement Program costs will be predominantly debt funded.

PA-ADV-34. PLEASE EXPLAIN IN DETAIL ANY CHANGES IN THE COST

ALLOCATION AND RATE DESIGN METHODOLOGIES SINCE THE 2016

RATE PROCEEDING.

RESPONSE:

The following changes since the 2016 rate proceeding are reflected in the cost allocation and rate design methodologies supporting the FY 2019 to FY 2021 rate request:

- Gas costs are isolated from Class 200 costs. Gas costs are allocated to functional cost
 centers based on historical cost data. Historically these costs were included as part of the
 class 200 costs excluding electric and SMIP/GARP costs and were allocated to functional
 cost centers based on the distribution of budgeted expenses.
- Adjustments were made to the allocation of operating costs to reflect the establishment of
 the Green Infrastructure Implementation unit within Planning & Environmental Services
 Division and the Green Infrastructure Maintenance unit within the Operations Division.
 The costs associated with the Green Infrastructure Implementation and Green Infrastructure
 Maintenance units are allocated to the Wastewater Utility as a capacity cost associated with
 the collection system.
- Public Fire Protection costs are no longer funded by the City's General Fund. The cost
 allocation and rate design of the proposed rates reflect the allocation of Public Fire
 Protection costs to customer types based on equivalent capacity meters and are recovered
 by the proposed water service charges.

PUBLIC ADVOCATE ADV SET #1 - 39

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PA-ADV-35. PLEASE EXPLAIN IN DETAIL THE BASIS FOR ANY CHANGES IN THE WATER CUSTOMER CLASS DEMAND FACTORS COMPARED TO THE 2016 RATE PROCEEDING.

RESPONSE:

The following water customer demand factors were changed since the last rate case:

Commercial – the peaking factors for the commercial customer type were revised to
reflect the inclusion of City and City leased properties. The following table provides the
basis for the consolidated commercial customer type peaking factors.

		Maximum Day		Maximum Hour	
	Average Daily	Capacity		Capacity	
Customer Type	Water Use	Factor	Total Capacity	Factor	Total Capacity
	Mcf/Day		Mcf/Day		Mcf/Day
Commercial	3,470	180	6,250	270	9,370
City Leased	20	180	40	235	50
City	650	180	1,170	235	1,530
Total	4,140	180	7,460	264	10,950
USE		180		265	

• Fire Protection. Consistent with prior cost of service and rate proceedings, we used a maximum day fire demand of 1,110 thousand cubic feet per day (Mcf/Day) and a maximum hour fire demand of 2,890 Mcf/Day. These system wide fire protection demands reflect two simultaneous fires, one requiring 10,000 gallons per minute (gpm) fire flow demand for 10 hours and the second requiring 5,000 gpm for 8 hours. These demands are allocated between standard pressure public fire service and private fire service based upon equivalent 6-inch connections for each of the two fire service classes. The following table provides the basis of the allocation of fire protection capacity to public and private fire protection.

			Maximum	Maximum
	Equivalent		Day	Hour
Customer Type	6" Meters	Distribution	Capacity	Capacity
			Mcf/Day	Mcf/Day
Public Fire Protection	25,364	88.1%	980	2,550
Private Fire Protection	3,410	11.9%	130	340
Total Fire Protection	28,776	100.0%	1,110	2,890

The Private Fire Capacity is further adjusted to include the average day metered demand. The following table provides the total maximum day and maximm hour capacities and extra capacities.

		Maximum	Maximum	Maximum	Maximum
	Average	Day	Day Extra	Hour	Hour Extra
Private Fire Meter Demand	Daily Use	Capacity	Capacity	Capacity	Capacity
	Mcf/Day	Mcf/Day	Mcf/Day	Mcf/Day	Mcf/Day
Private Fire Protection		130	130	340	210
Metered Demand	30	30	0	30	0
Total Fire Protection	30	160	130	370	210

PA-ADV-36. PLEASE EXPLAIN IN DETAIL THE BASIS FOR ANY CHANGES TO THE NON-RESIDENTIAL GA AND IA UNITS OF SERVICE SINCE THE 2016 RATE PROCEEDING.

RESPONSE:

The non-residential gross area (GA) and impervious area (IA) units of service were developed based on the same methodology used during the previous proceeding and have been updated to reflect PWD's experience since the last proceeding including changes due to the following:

- 1. <u>Routine Stormwater Billing Data Maintenance</u>: The PWD actively maintains stormwater billing data including GA and IA information for each parcel within the City.
- 2. <u>Appeals:</u> Reductions in GA and IA units of service reflect customer driven appeals related to GA and IA data inaccuracies.
- 3. Reductions due to Impervious Area Reduction (IAR) Practices and Credits:
 - o IAR Practices:
 - Reductions in GA and IA units of service reflect parcels currently receiving IAR.
 - IAR practices refer to stormwater management conditions that occur as a result of existing property conditions and sometimes as a result of the installation of stormwater management practices. IAR conditions recognized by the PWD include rooftop disconnections, pavement disconnections, tree canopy coverage, green roof and porous pavement.

o Credits:

 Reductions in GA and IA units of service include credits resulting from GA/IA management practices and the SMIP/GARP program.

- Reductions in GA and IA units of service reflect parcels currently receiving credits.
- GA/IA Management practices include Impervious Area Managed, Open
 Space and NPDES credits resulting from development and redevelopment activity.
- SMIP/GARP credits reflect verified and completed projects as of June 30, 2017.
- 4. <u>Community Gardens:</u> As a result of the Rate Board's determination on December 22, 2016, eligible community gardens may receive a 100 percent discount on their monthly stormwater service charge. Refer to the following website for additional information on 2016 Special Rates Filing: http://www.phila.gov/water/rateboard/Pages/2016Special.aspx
 - During the proceeding, a total of 1,121,000 square feet of GA and 102,000 square feet of IA was estimated to be associated with potential community gardens parcels.
 - o For projections purposes as part of the current proceeding:
 - The GA and IA associated with approved parcels designated as community gardens properties as of June 30, 2017 is not included in the initial IA and GA units of service. Black & Veatch assumed that the remaining GA and IA would be designated as community gardens in FY 2018 for the purposes of estimating the impacts to the GA and IA units of service.

PA-ADV-42. PLEASE EXPLAIN IN DETAIL HOW THE MAXIMUM DAY AND MAXIMUM HOUR CAPACITY FACTOR FOR EACH CLASS IN THE WATER CLASS COST OF SERVICE STUDY WAS DETERMINED (INCLUDING PUBLIC AND PRIVATE FIRE). INCLUDE SUPPORTING CALCULATIONS AND DOCUMENTATION.

RESPONSE:

The customer type extra capacity factors were determined based on previous cost of service studies and rate proceedings. To review and verify the reasonableness of the capacity factors, Black & Veatch performed a capacity factor analysis according to the methodology outlined in Appendix A of AWWA Manual M-1: Principles of Water Rates, Fees, and Charges. Accordingly, Black & Veatch used the FY 2016 monthly customer billing data, and system historical peak demands, and weekly and hourly usage adjustments to derive an estimate of capacity factors for each customer type.

PA-ADV-43. PLEASE IDENTIFY THE ANNUAL QUANTITIES OF LOST AND UNACCOUNTED-FOR WATER (LUFW) FOR THE MOST RECENT FIVE-YEAR PERIOD AVAILABLE. ALSO IDENTIFY ANNUAL WATER PRODUCTION FOR THE SAME FIVE ANNUAL PERIODS.

RESPONSE:

The American Water Works Associated (AWWA) recognizes that accounting for Non-Revenue Water (NRW) is an industry best practice. The Department no longer utilizes the matrix of Unaccounted-for water for tracking water losses. The major difference between LUFW and NRW is that NRW includes authorized unbilled consumption, such as the water used for firefighting. Attachment response PA-ADV-43 is the standard International Water Association / AWWA water balance for the Department for the last five years with key definitions. A detailed description of the water balance can be found in the AWWA M36 Manual.

RESPONSE PROVIDED BY: Donna Schwartz, Philadelphia Water Department

PA-ADV-44. PLEASE IDENTIFY THE CAUSES OF LUFW ON THE PWD SYSTEM.

PROVIDE COPIES OF ANY STUDIES OR ANALYSES CONDUCTED IN THE
LAST THREE YEARS THAT EVALUATE THE CAUSES OF LUFG ON THE
PWD SYSTEM.

RESPONSE:

The causes of Non-revenue water include the following.

Authorized Consumption	Avg. Volume, MGD
Unbilled metered	0.0
Apparent Losses	
Customer Meter Inaccuracies	5.8
Unauthorized Consumption	6.5
Systematic Data Handling Error	3.4
Real Losses	
Tank Overflows / Operator Error	0.0
Reported & Unreported Leakage	
Transmission Main Breaks & Leaks	14.4
Distribution Main Breaks & Leaks	0.3
Customer Service Lines	41.0
Hydrant & Valve Leaks	0.1
Measured Leakage (DMAs)	0.3
Background Leakage	14.8
Leakage Liability Costs	\$515,954

^{*}Data obtained from FY 2016 IWA/AWWA water balance for the Department

Also, see attachment response PA-ADV-43 for the standard International Water Association / American Water Works Association ("AWWA") water balance analysis for the Department for the last five years with key definitions. A detailed description of the water balance can be found in the AWWA M36 Manual.

RESPONSE PROVIDED BY: Donna Schwartz, Philadelphia Water Department

PA-ADV-45. PLEASE PROVIDE A DETAILED EXPLANATION OF THE PWD'S EFFORTS AND PROGRAMS TO REDUCE LUFW OVER THE LAST THREE YEARS. IDENTIFY THE SUCCESS OF THOSE EFFORTS.

RESPONSE:

year.

The Water Department, Revenue Department and Water Revenue Bureau have organized a group known as The Water Accountability Committee. The Water Accountability Committee's goal is to promote a high level of efficiency in the water delivery and billing processes and perform the strategic planning necessary to implement lasting improvements in water and revenue loss reduction. This group has been meeting since 1994. Some efforts which committee members have lead include the PWD Revenue Protection Program and Reinspection Program. These groups work to reduce apparent water loss by investigating water-consuming accounts suspected to be unbilled, or under-billed; and have recovered over \$45 million since FY 2000.

Efforts to reduce real water losses are performed using leak detection technology during routine leak detection surveys. PWD has continued its successful use of the Sahara® inline transmission main leak detection technology provided by the Pure Technologies in a program that was launched in FY 2007. Large diameter transmission pipelines have historically been difficult to survey for leaks, however the PWD leak detection program has been successful using newer technology. Any observed leaks are scheduled for repairs to reduce non-revenue water. The PWD distribution system has 3,028 miles of pipeline, and as presented in the table below, PWD leak detection surveys a significant portion of the total distribution system each

Fiscal Year	Miles of Pipe Surveyed For Leaks
2017	1,053
2016	799
2015	637

1	RESPONSE PROVIDED BY:	Donna Schwartz, Philadelphia Water Department
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PA-ADV-46. PLEASE IDENTIFY THE ANNUAL QUANTITIES OF NON-REVENUE
WATER FOR THE MOST RECENT FIVE-YEAR PERIOD AVAILABLE.
INCLUDE A DETAILED BREAKDOWN OF NON-REVENUE WATER BY
COMPONENT/TYPE.

RESPONSE:

Please see the below table that presents the volume of non-revenue water (NRW) and the number of main breaks. Many factors contribute to the presence of NRW. The winter of 2014 was a severe winter which led to an increase in main breaks and therefore an increase in NRW. The Water Department, Revenue Department and Water Revenue Bureau work to keep NRW at an economical level and are continually refining techniques to help reduce it.

Fiscal Year	NRW, MGD	Main Breaks
2017	N/A	669
2016	90.2	687
2015	94.2	916
2014	92.2	920
2013	86.3	823

Note: The NRW shown is not exclusive to water main breaks but is the total system NRW.

RESPONSE PROVIDED BY: Donna Schwartz, Philadelphia Water Department

- PA-ADV-47. REFERENCE THE PWD'S RATES AND CHARGES, SECTION 6.0

 MISCELLANEOUS WATER CHARGES. FOR EACH OF THE CHARGES

 IDENTIFIED IN THIS SECTION, PLEASE:
 - A. STATE WHEN THE CURRENT CHARGE WAS APPROVED;
 - B. EXPLAIN HOW THE CURRENT CHARGE WAS CALCULATED OR DETERMINED;
 - C. DEMONSTRATE THAT THE CHARGE IS COST BASED; AND
 - D. IDENTIFY THE REVENUES COLLECTED PURSUANT TO THE CHARGE FOR THE MOST RECENT ANNUAL PERIOD AVAILABLE.

RESPONSE:

Attachment PA-ADV-47-48-49 Response.xls presents a summary of the current miscellaneous water charges contained in Section 6.0 of PWD's rates and charges. The miscellaneous fees are presented by their corresponding section in the PWD's regulations, specific section references are provided in Column 1 and the current charges are listed in Column 2.

Note: For the Fiscal Year 2019 through Fiscal Year 2021 Rate proceedings, the Water Department performed a Miscellaneous Charges Study based on the cost of service guidelines outlined in the American Water Works Association (AWWA) manual M-1: *Principles of Water Rates, Fees, and Charges (M1 Manual)*. The Water Department is proposing to gradually adjust the fees to better track cost of service.

A. The Rate Board approved the charges during the last rate proceeding with the exception of the discontinuance charge which was adopted by City Council and has not been updated since.

- B. The current miscellaneous charges were initially approved as part of prior proceedings; however, a complete record detailing the derivation of each of these current charges is not available.
 - Note PWD completed a review of all miscellaneous fees as part of the current rate proceeding and the proposed charges are included in the official Fiscal Year 2019 to Fiscal Year 2021 Rate Proceeding Filing (Please refer to PWD Statement No. 9A Schedule BV-E4).
- C. Based upon discussions with PWD staff the charges were based on a review of estimated costs associated with each service at the time of implementation; however, a complete record of all calculations used in developing the current fees is not available.
- D. The City's revenue codes do not identify each individual miscellaneous charge; therefore, Black & Veatch could not delineate individual revenues from each charge. Based on the overall magnitude of the miscellaneous charges revenues and the proposed level of adjustments, the Water Department believes that impacts from proposed miscellaneous fee updates will be minimal.

Note - PWD completed a review of all miscellaneous fees as part of the current rate proceeding. The proposed charges are included in the official FY 2019 to FY 2021 Rate Proceeding Filing (Please refer to PWD Statement No. 9A – Schedule BV-E4).

- C. Based upon discussions with PWD staff the charges were based on a review of estimated costs associated with each service at the time of implementation; however, a complete record of all calculations used in developing the current fees is not available.
- D. The City's revenue codes do not identify each individual miscellaneous charge; therefore, Black & Veatch could not delineate individual revenues from each charge. Based on the overall magnitude of the miscellaneous charges revenues and the proposed level of adjustments, the Water Department believes that impacts from proposed miscellaneous fee updates will be minimal.

Note - PWD completed a review of all miscellaneous fees as part of the current rate proceeding and the proposed charges are included in the official Fiscal Year 2019 to Fiscal Year 2021 Rate Proceeding Filing (Please refer to PWD Statement No. 9A – Schedule BV-E4).

- C. Based upon discussions with PWD staff the charges were based on a review of estimated costs associated with each service at the time of implementation; however, a complete record of all calculations used in developing the current fees is not available.
- D. The current miscellaneous charges were initially approved as part of prior proceedings; however, a complete record detailing the derivation of each of these current charges is not available.

- PA-ADV-50. PLEASE IDENTIFY EACH FEE, CHARGE OR ASSESSMENT AUTHORIZED UNDER PWD REGULATIONS (CHAPTERS 1-6) WHICH WAS MODIFIED, ADDED, MADE EFFECTIVE, OR IMPLEMENTED ON OR AFTER JANUARY 1, 2016. WITH RESPECT TO EACH SUCH FEE, CHARGE, OR ASSESSMENT, PLEASE:
 - A. STATE WHEN THE CURRENT FEE, CHARGE OR ASSESSMENT WAS APPROVED;
 - B. EXPLAIN HOW THE CURRENT FEE, CHARGE OR ASSESSMENT WAS CALCULATED OR DETERMINED;
 - C. DEMONSTRATE THAT THE FEE, CHARGE OR ASSESSMENT IS COST BASED; AND
 - D. IDENTIFY THE REVENUES COLLECTED PURSUANT TO THE FEE, CHARGE OR ASSESSMENT FOR THE MOST RECENT ANNUAL PERIOD AVAILABLE.

RESPONSE:

Commissioner.

The current fees, charges and assessments authorized under PWD Regulations (Chapters 1-6) are summarized in response attachment PA-ADV-50.xls with the exception of the miscellaneous fees (Chapter 3 Attachment A – Sections 6 through 8) which are summarized in response attachment - PA-ADV-47-48-49 Response.xls.

A. The Rate Board approved the charges during the last rate proceeding with the exception of the new sewer connection fees in Chapter 5 – Sewer & Wastewater Control, added in September 2017. Note the fee added to Chapter 5 are not part of PWD's Rates and Charges and are therefore not the purview of the Water, Sewer and Stormwater Rate Hearing Board; these fees are implemented and adjusted at the discretion of the Water

- B. The current fees, charges and assessment were the subject of the previous Fiscal Year 2017 to Fiscal Year 2018 rate proceeding and determined as part of the associated financial plan and cost of service analysis. The adopted rates and charges reflect the Water, Sewer and Stormwater Rate Board's decisions. For an explanation of miscellaneous fees, please refer to the responses for PA-ADV 47, 48 and 49. Black & Veatch developed the Sewer Connection Fees adopted in September 2017 as part of Miscellaneous Charges Study based on the cost of service guidelines outlined in the AWWA manual M-1: *Principles of Water Rates, Fees, and Charges* and the Water Environment Federation (WEF) Manual of Practice 27 (MoP 27): *Financing and Charges for Wastewater Systems*.
- C. As described in the Fiscal Year 2017 to Fiscal Year 2018 rate proceeding record, the fees, charges and assessments are based upon a cost of service analysis conducted in conjunction with the proceeding. For an explanation of miscellaneous fees, please refer to the responses for PA-ADV 47, 48 and 49. Black & Veatch developed the Sewer Connection Fees adopted in September 2017 as part of Miscellaneous Charges Study based on the cost of service guidelines outlined in the AWWA manual M-1: *Principles of Water Rates, Fees, and Charges* and the WEF Manual of Practice 27: *Financing and Charges for Wastewater Systems*.
- D. The City's revenue codes do not identify each individual miscellaneous charge; therefore, Black & Veatch could not delineate individual revenues from each charge.

PA-ADV-51. PLEASE IDENTIFY EACH CREDIT, REBATE, REWARD OR OTHER FINANCIAL INCENTIVE AUTHORIZED UNDER PWD REGULATIONS (CHAPTERS 1-6) WHICH WAS MODIFIED, ADDED, MADE EFFECTIVE, OR IMPLEMENTED ON OR AFTER JANUARY 1, 2016. WITH RESPECT TO EACH SUCH CREDIT, REBATE, REWARD OR OTHER FINANCIAL INCENTIVE, PLEASE:

- A. STATE WHEN THE CURRENT CREDIT, REBATE, REWARD OR OTHER FINANCIAL INCENTIVE WAS APPROVED;
- B. EXPLAIN HOW THE CURRENT CREDIT, REBATE, REWARD OR OTHER FINANCIAL INCENTIVE WAS CALCULATED OR DETERMINED;
- C. DEMONSTRATE THAT THE CREDIT, REBATE, REWARD OR OTHER FINANCIAL INCENTIVE IS COST BASED; AND
- D. IDENTIFY THE REVENUES UTILIZED TO PROVIDE SUCH CREDIT, REBATE, REWARD OR OTHER FINANCIAL INCENTIVE FOR THE MOST RECENT ANNUAL PERIOD AVAILABLE.

RESPONSE:

In Fiscal Year 2017, the Water Department began offering a \$50 credit to customer who successfully complete the regulatory lead sampling program in accordance with the U.S. EPA requirements for such sampling. The credit was approved by regulation effective on May 5, 2016. The amount of the credit was determined based on a review of similar credits offered by other municipal utilities and a consideration of the amount deemed necessary to incentivize a sufficient number of customers in Tier 1 homes (homes with lead pipes or lead solder) to successfully complete the sampling program in accordance with U.S. EPA requirements for the minimum number of Tier 1 sampling locations (50 Tier 1 sites). A total of 68 Tier 1 sampling locations completed the sampling in Fiscal Year 2017, and an additional 89 Tier 1 sampling locations completed the sampling in Fiscal Year 2018.

1	RESPONSE PROVIDED BY:	Deb McCarty, Philadelphia Water Department
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PA-ADV-52. SINCE THE 2016 RATE PROCEEDING, HAS THE PWD CONDUCTED A COMPREHENSIVE HOLISTIC REVIEW OF ITS RATE STRUCTURE FOR WATER SERVICE UNDER WHICH SEPARATE RATE SCHEDULES WERE CONSIDERED FOR CERTAIN CUSTOMER CLASSES? IF NO, WHY NOT? IF YES, PLEASE DESCRIBE THIS REVIEW IN DETAIL AND PRESENT ALL RESULTS AND FINDINGS OF THE REVIEW.

RESPONSE:

No, the Department has not completed such review. PWD launched a new rate structure for TAP customers on July 1, 2017, pursuant to the Rate Board 's Decision in the 2016 rate proceeding, and is proposing a rate rider or surcharge for TAP as part of the current rate proceeding. PWD has not yet conducted a review of the TAP rate structure given that this program is still in the first year of implementation. Since the 2016 Rate Proceeding, PWD also has reviewed written comments submitted to the Pennsylvania Public Utility Commission (PUC) in a proceeding involving a broad review of potential alternative rate methodologies. This proceeding has included a discussion of cost tracking methodologies such as surcharges and riders, as well as the reasonableness an efficacy of water and wastewater utilities utilizing alternative rate methodologies in a manner that addresses the costs associated with replacing aging infrastructure and meeting increasing environmental regulations. Parties in the PUC proceeding have expressed various views on whether alternative rate making methodologies are just and reasonable and in the public interest. Based on the Department's review of written comment in the PUC proceeding, it does not appear that there is a consensus as this time on the need to advance alternative rate making mechanisms. See PUC Docket No. M-2015-2518883.

RESPONSE PROVIDED BY: Melissa LaBuda, Philadelphia Water Department

PA-ADV-54. PLEASE PROVIDE A USAGE DISTRIBUTION BY MONTH FOR THE MOST RECENT 36 MONTHS AVAILABLE, INCLUDING WITHIN EACH DISTRIBUTION RANGE: (A) THE NUMBER OF ACCOUNTS; (B) THE AGGREGATE CONSUMPTION WITHIN THAT RANGE; (C) THE AVERAGE CONSUMPTION WITHIN THAT RANGE; AND (D) THE AVERAGE BILL WITHIN THAT RANGE.

RESPONSE:

The tiered usage reports for FY 2015, 2016, & 2017 are provided. They show the number of bills, volume of water usage, and total water usage charges within each tier of the current rate structure. Monthly data are not available; however, we are providing these annualized data to address the request above. Average consumption and water usage charges within each tier are calculable based on these totals. We are also providing electronic workbooks of these tiered usage reports, entitled PA-ADV-54-1-2015, PA-ADV-54-2-2016, and PA-ADV-54-3-2017. Note: The Hand Billed customer line is made up of customers coded "H" in the billing system. The "H" type accounts are for surcharge and sewer credit accounts, reference Regulation Section 3.4 and 3.5. These accounts can also be referred to as "special handling" accounts.

	2015						
Description 20,000+ CCF Count 20,000+ CCF Usage 20,000+ CCF Charges							
General Service	1	3,654,200	\$ 105,644.44				
Residential	-	-	\$ -				
Commercial	1	3,654,200	\$ 105,644.44				
Industrial	-	-	\$ -				
Public Utilities	-	-	\$ -				
РНА	1	4,346,800	\$ 120,849.46				
Charities and Schools	-	-	\$ -				
Senior Citizens	-	-	\$ -				
Hand Bill	38	197,726,300	\$ 4,885,764.32				
City Leased	-	-	\$ -				
Hospital/University	3	7,392,800	\$ 164,014.10				
Scheduled	-	-	\$ -				
Fire Service	-	-	\$ -				
City Government	46	237,414,100	\$ 5,936,341.94				
PWD	44	229,096,700	\$ 5,702,892.71				
City Government Less PWD	2	8,317,400	\$ 233,449.23				

2016					
Description	0 CCF Count	0 CCF Usage	0 CCF Charges		
General Service	778,396	-	\$ -		
Residential	697,482	-	\$ -		
Commercial	78,040	-	\$ -		
Industrial	2,535	-	\$ -		
Public Utilities	339	-	\$ -		
РНА	8,125	-	\$ -		
Charities and Schools	2,841	-	\$ - \$ -		
Senior Citizens	21,038	-	\$ -		
Hand Bill	212	-	\$ -		
City Leased	122	-	\$ -		
Hospital/University	541	-	\$ -		
Scheduled	24	-	\$ -		
Fire Service	1,163	-	\$ -		
City Government	5,398	_	\$ -		
PWD	92	-	\$ -		
City Government Less PWD	5,306	-	\$ -		
	2016	I			
Description	.01 to 20 CCF Count	.01 to 20 CCF Usage	.01 to 20 CCF Charges		
General Service	4,611,683	2,628,689,000	\$ 102,627,151.71		
Residential	4,340,989	2,441,593,600	\$ 95,332,689.13		
Commercial	263,459	182,438,500	\$ 7,113,770.26		
Industrial	6,384	4,151,500	\$ 160,956.05		
Public Utilities	851	505,400	\$ 19,736.73		
РНА	52,358	40,979,200	\$ 1,520,278.67		
Charities and Schools	16,072	12,625,200	\$ 369,896.47		
Senior Citizens	243,540	108,283,300	\$ 3,243,314.16		
Hand Bill	358	269,300	\$ 9,823.64		
City Leased	123	68,400	\$ 2,671.35		
Hospital/University	1,059	768,600	\$ 22,511.63		
Scheduled	26	15,800	\$ 617.07		
Fire Service	651	416,300	\$ 16,258.14		
City Government	4,368	3,399,100	\$ 132,733.16		
PWD	107	66,300	\$ 2,584.85		
City Government Less PWD	4,261	3,332,800	\$ 130,148.31		
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2016						
20.01-1,000 CCF 20.01-1,000 CCF 20.01-1,000 CCF						
Description	Count	Usage	Charges			
General Service	186,381	1,414,215,000	46,010,054			
Residential	110,728	622,651,900	21,350,063			
Commercial	71,529	743,779,600	23,145,075			
Industrial	3,691	41,652,800	1,314,699			
Public Utilities	433	6,130,700	200,217			
РНА	7,375	61,540,100	1,952,414			
Charities and Schools	10,863	133,335,800	3,282,199			
Senior Citizens	3,306	14,266,300	384,457			
Hand Bill	1,580	68,245,500	1,988,919			
City Leased	236	3,779,800	123,124			
Hospital/University	2,876	78,655,700	1,894,215			
Scheduled	-	-	-			
Fire Service	194	2,546,900	83,090			
City Government	4,674	63,997,500	2,094,004			
PWD	276	4,391,100	142,931			
City Government Less PWD	4,398	59,606,400	1,951,074			
	2016					
	1,000.01-20,000 CCF	1,000.01-20,000 CCF	1,000.01-20,000 CCF			
Description	Count	Usage	Charges			
General Service	2,371	487,196,600	\$ 14,268,842.40			
Residential	332	60,140,400	\$ 1,847,271.67			
Commercial	1,889	372,842,100	\$ 11,254,113.17			
Industrial	119	49,688,600	\$ 1,027,311.23			
Public Utilities	31	4,525,500	\$ 140,146.33			
РНА	188	65,275,700	\$ 1,846,902.54			
Charities and Schools	231	38,031,100	\$ 879,297.43			
Senior Citizens	-	-	\$ -			
Hand Bill	840	304,661,200	\$ 7,393,389.35			
City Leased	9	2,177,200	\$ 65,896.82			
Hospital/University	777	217,799,400	\$ 4,916,411.16			
Scheduled	-	-	\$ -			
Fire Service	22	10,691,600	\$ 315,868.25			
City Government	449	201,346,600	\$ 5,963,457.64			
PWD	155	59,456,700	\$ 1,764,922.28			

	2016					
Description 20,000+ CCF Count 20,000+ CCF Usage 20,000+ CCF Charge						
General Service	3	11,178,300	328,615			
Residential	-	-	-			
Commercial	1	2,219,500	66,995			
Industrial	2	8,958,800	261,620			
Public Utilities	-	-	-			
РНА	1	2,014,500	55,924			
Charities and Schools	-	-	-			
Senior Citizens	-	-	-			
Hand Bill	37	212,312,200	5,182,217			
City Leased	-	-	-			
Hospital/University	5	14,948,800	330,199			
Scheduled	-	-	-			
Fire Service	-	-	-			
City Government	50	244,910,600	6,313,661			
PWD	37	211,283,500	5,352,330			
City Government Less PWD	13	33,627,100	961,331			

2017				
Description	0 CCF Count	0 CCF Usage	0 CCF Charges	
General Service	796,921	-	\$ -	
Residential	711,994	-	\$ -	
Commercial	81,987	-	\$ -	
Industrial	2,537	-	\$ -	
Public Utilities	403	-	\$ -	
РНА	8,751	-	\$ -	
Charities and Schools	3,025	-	\$ -	
Senior Citizens	22,316	-	\$ -	
Hand Bill	195	-	\$ -	
City Leased	205	-	\$ -	
Hospital/University	525	-	\$ -	
Scheduled	55	-	\$ -	
Fire Service	1,241	-	\$ -	
City Government	5,112	_	\$ -	
PWD	73	_	\$ -	
City Government Less PWD	5,039	_	\$ -	
eity dovernment Less i WD	3,033		٧	
	2017			
Description	.01 to 20 CCF Count	.01 to 20 CCF Usage	.01 to 20 CCF Charges	
General Service	4,623,011	2,585,910,700	\$ 105,974,287.03	
Residential	4,352,447	2,401,079,000	\$ 98,409,845.64	
Commercial	263,194	180,175,400	\$ 7,374,581.39	
Industrial	6,398	4,109,000	\$ 167,414.25	
Public Utilities	972	547,300	\$ 22,445.75	
РНА	53,361	41,401,300	\$ 1,647,068.61	
Charities and Schools	15,590	12,211,700	\$ 377,494.17	
Senior Citizens	250,667	109,595,800	\$ 3,427,685.74	
Hand Bill	330	257,300	\$ 9,904.61	
City Leased	259	179,200	\$ 7,346.67	
Hospital/University	1,054	730,500	\$ 22,452.10	
Scheduled	27	13,600	\$ 557.46	
Fire Service	767	493,800	\$ 20,240.51	
City Government	4,375	3,303,700	\$ 135,476.97	
PWD	142	95,700	\$ 3,928.15	
City Government Less PWD	4,233	3,208,000	\$ 131,548.82	

	2017						
20.01-1,000 CCF 20.01-1,000 CCF 20.01-1,000 CCF							
Description	Count	Usage	Charges				
General Service	185,222	1,421,799,100	51,106,105				
Residential	109,650	621,583,200	23,384,773				
Commercial	71,547	752,361,700	26,052,370				
Industrial	3,611	41,690,100	1,444,252				
Public Utilities	414	6,164,100	224,710				
РНА	7,653	62,077,200	2,233,607				
Charities and Schools	10,364	130,252,600	3,576,894				
Senior Citizens	3,295	13,768,200	405,163				
Hand Bill	1,530	63,105,500	2,120,463				
City Leased	342	4,892,100	178,790				
Hospital/University	3,030	81,502,800	2,207,091				
Scheduled	-	-	-				
Fire Service	208	3,284,200	119,409				
City Government	4,330	56,894,900	2,069,362				
PWD	265	4,363,500	158,610				
City Government Less PWD	4,065	52,531,400	1,910,751				
	2017						
	1,000.01-20,000 CCF	1,000.01-20,000 CCF	1,000.01-20,000 CCF				
Description	Count	Usage	Charges				
General Service	2,298	477,940,900	\$ 15,002,389.56				
Residential	336	59,551,200	\$ 1,974,226.84				
Commercial	1,816	367,271,400	\$ 11,777,598.32				
Industrial	121	47,427,100	\$ 1,124,452.30				
Public Utilities	25	3,691,200	\$ 126,112.10				
РНА	190	56,198,600	\$ 1,692,425.01				
Charities and Schools	241	38,765,900	\$ 991,930.46				
Senior Citizens	-	-	\$ -				
Hand Bill	799	298,225,700	\$ 7,345,134.84				
City Leased	13	2,834,600	\$ 93,211.07				
Hospital/University	777	217,788,600	\$ 5,088,058.53				
Scheduled	-	-	\$ -				
Fire Service	25	10,633,300	\$ 317,334.05				
City Government	466	221,407,000	\$ 6,579,096.12				
PWD	159	80,419,600	\$ 2,378,844.60				
City Government Less PWD	307	140,987,400	\$ 4,200,251.52				

	2017				
Description	20,000+ CCF Count	20,000+ CCF Usage	20,000+ CCF Charges		
General Service	2	13,646,800	391,085		
Residential	-	-	-		
Commercial	1	7,896,900	226,291		
Industrial	1	5,749,900	164,794		
Public Utilities	-	-	-		
РНА	1	2,162,700	62,021		
Charities and Schools	1	2,300,000	48,608		
Senior Citizens	-	-	-		
Hand Bill	37	205,761,400	5,660,587		
City Leased	-	-	-		
Hospital/University	3	6,418,400	140,698		
Scheduled	-	-	-		
Fire Service	-	-	-		
City Government	50	182,659,100	5,047,585		
PWD	42	153,163,500	4,221,146		
City Government Less PWD	8	29,495,600	826,439		

RESPONSE PROVIDED BY: Raftelis Financial Consultants, Inc.

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PA-ADV-55. PLEASE PROVIDE, BY YEAR FOR THE MOST THREE YEARS

AVAILABLE, ALL COLLECTABILITY STUDIES ASSESSING THE RATE

AT WHICH THE DEPARTMENT CONVERTS BILLINGS INTO COLLECTED

REVENUE.

RESPONSE:

Percent of Remainder Collected

*includes City, less PWD, **assumes City 100%, excludes PWD

The annual report generated by RFC, called Report 4-Payment Patterns, addresses this request. The billings and collections for fiscal years 2014, 2015 and 2016 are shown below, and can be found in the enclosed PDF document, PA-ADV-6.

				Billing Year	Billing year +1	Billing year +2 and beyond
Fiscal Year	Туре	Billings	Payments (All)	FY2016 (Payments <=12 Months)	FY2017 (Payments 13-24 Months)	FY2018 and beyond (Payments 25 and greater)
FY16	Total*	\$ 612,315,212.94	\$527,702,482.84	\$ 527,196,433.22		-
FY16	Non-SWO*	\$ 593,155,610.61	\$515,609,813.75	\$ 515,110,139.47		-
FY16	SWO*	\$ 19,159,602.33	\$ 12,092,669.09	\$ 12,086,293.75		-
FY16	Total percent collected**		86.18%	86.10%	-	-
FY16	Non-SWO collected**		86.93%	86.84%	-	
FY16	SWO collected**		63.12%	63.08%	-	-
FY16	Percent of Remainder Collected	-				-
	*includes City, less PWD, **assumes City 100%, excludes PWD					

ng year +2 and bev FY2015 (Payments <=12 FY2016 (Payments 13-24 FY 2017 and beyond (Payr FY15 Total* \$ 614,256,985.07 \$ 579,607,855.73 529.025.536.86 50,582,318.88 Non-SWO* \$ 594,133,652.95 \$566,005,717.06 517,049,680.84 FY15 \$ 13,602,138.67 Total percent collected** FY15 Non-SWO collected** 95.27% 87.03% 8.24% FY15 SWO collected** 67.599 59.51% 8.08%

59.35%

includes City, less PWD, **assumes City 100%, excludes PWD Billing Year Billing year +1 Billing year +2 and beyond FY2014 (Payments <=12 | FY2015 (Payments 13-24 | FY2016 (Payments 25 Months and FY14 Total* \$ 586,122,899.87 \$ 555,872,638.32 499,699,930.75 49,930,281,39 6,242,426.19 FY14 Non-SWO* \$ 566 332 391 72 \$ 542 400 189 38 488 001 706 23 48 746 055 88 5 652 427 28 FY14 SWO* \$ 19,790,508.15 | \$ 13,472,448.94 | \$ 11,698,224.52 1.184,225.51 \$ 589,998.91 Total percent collected* FY14 94.84% 85.26% FY14 95.77% 86.17% 8.61% Non-SWO collected** 68.089 57.77% FY14 Percent of Remainder Collected 17.11%

RESPONSE PROVIDED BY: Raftelis Financial Consultants, Inc.

PA-ADV-57. PLEASE IDENTIFY EACH RESIDENTIAL CUSTOMER SERVICE FEE IMPOSED, INCLUDING ANY LATE PAYMENT CHARGE. SEPARATELY PROVIDE THE COST-JUSTIFICATION FOR SUCH FEE.

RESPONSE:

Description	Justification	Fee Amount
Lien Fee	Fee mandated by First Judicial District of Pennsylvania as of December 2017	\$91.45
Bad Check Fee	Philadelphia Code Section 19-2809(7)(f)	\$20.00
Penalty for Late Payment	Penalty mandated by Philadelphia Code Section 19-1606(2). (See next column for the relevant text of this section)	If current water or sewer rent charges are not paid within thirty (30) days after the due date of any bill, a penalty of 5% shall be imposed. Additional penalties shall be imposed and added to unpaid water or sewer rent charges, and their penalties, on the due date of the bill of each succeeding cycle, as follows: * * * (.3) monthly cycles – 1/2 of 1%, except that a period of thirty (30) days shall elapse before the first additional penalty shall be imposed.

See also response to PA-ADV-47, 48 and 50.

1	RESPONSE:
2	See response attachment PA-ADV-60 Payment Agreement Report.
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4	RESPONSE PROVIDED BY: Michelle Bethel, Water Revenue Bureau
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PA-ADV-74. FOR EACH MONTH FOR THE MOST RECENT TWELVE MONTHS AVAILABLE, PLEASE PROVIDE:

- A. THE AVERAGE BILL FOR RESIDENTIAL ACCOUNTS AT EXISTING RATES PROVIDED IN SUFFICIENT DETAIL (INCLUDING ALL INPUT VARIABLES) TO PERMIT REPLICATION.
- B. THE SAME BILL INFORMATION USING THE COMPANY'S PROPOSED RATES RATHER THAN THE COMPANY'S EXISTING RATES.

RESPONSE:

As detailed in Raftelis Financial Consultants' "Typical Residential Customer Consumption" Memo, the typical residential customer utilizes 5 Ccf (or 500cf) of water per month. The majority of residential customers have 5/8" service lines.

The following table provides the typical bills based upon the existing (FY 2018) rates and FY 2019 through FY 2021 proposed as part of the current proceeding.

	FY 2018	FY 2019	FY 2020	FY 2021
USAGE CHARGES				
waterusage	\$21.54	\$21.97	\$22.58	\$23.19
wastewater usage	\$16.23	\$15.88	\$16.91	\$17.87
Subtotal	\$37.77	\$37.85	\$39.49	\$41.06
SERVICE CHARGE				
water	\$6.61	\$6.18	\$6.18	\$6.18
sewer	\$7.41	\$7.20	\$7.20	\$7.20
Subtotal	\$14.02	\$13.38	\$13.38	\$13.38
STORMWATER CHARGE				
swms charge	\$12.49	\$14.18	\$15.23	\$16.12
billing & collection charge	\$2.22	\$1.83	\$1.91	\$2.03
Subtotal	\$14.71	\$16.01	\$17.14	\$18.15
TOTAL MONTHLY BILL	\$66.50	\$67.24	\$70.01	\$72.59

(Includes Usage, Service & Stormwater Charges)

Calculated quantity charges are based upon the following rates:

Quantity Charge Rates	FY 2018	FY 2019	FY 2020	FY 2021
Water Usage Charge per Mcf	\$43.08	\$43.93	\$45.15	\$46.37
Wasterwater Usage Charge per Mcf	\$32.46	\$31.76	\$33.81	\$35.74

Notes: Water Usage Charges are based upon the first tier (First 2 Mcf)

Mcf - Thousand cubic feet

RESPONSE PROVIDED BY: Black & Veatch Management Consulting, LLC

1	PA-ADV-77.	PLEASE PROVIDE ALL WRITTEN STUDIES CURRENTLY WITHIN THE
2		COMPANY'S CUSTODY OR CONTROL, WHETHER OR NOT PREPARED
3		BY OR FOR THE COMPANY, THAT EXPLICITLY ASSESS THE EXTENT
4		TO WHICH THE FOLLOWING ACTIVITIES REDUCE RESIDENTIAL BAI
5		DEBT:
6		A. CASH SECURITY DEPOSITS;
7		B. DEFERRED PAYMENT AGREEMENTS;
8		C. DISCONNECTIONS FOR NONPAYMENT;
9		D. FIELD COLLECTIONS;
10		E. CALL CENTER COLLECTION CALLS;
11		F. BUDGET BILLING PLANS;
12		G. LATE PAYMENT CHARGES.
13		
14	RESPONSE:	
15	There are n	o studies available that capture the information requested.
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17	RESPONSE	PROVIDED BY: Michelle Bethel, Water Revenue Bureau
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1	PA-ADV-78.	PLEASE PROVIDE ALL WRITTEN STUDIES CURRENTLY WITHIN THE
2		COMPANY'S CUSTODY OR CONTROL, WHETHER OR NOT PREPARED
3		BY OR FOR THE COMPANY, THAT EXPLICITLY ASSESS THE EXTENT
4		TO WHICH THE FOLLOWING ACTIVITIES REDUCE RESIDENTIAL
5		ARREARS:
6		A. CASH SECURITY DEPOSITS;
7		B. DEFERRED PAYMENT AGREEMENTS;
8		C. DISCONNECTIONS FOR NONPAYMENT;
9		D. FIELD COLLECTIONS;
10		E. CALL CENTER COLLECTION CALLS;
11		F. BUDGET BILLING PLANS;
12		G. LATE PAYMENT CHARGES.
13		
14	RESPONSE:	
15	There are n	o studies available that capture the information requested.
16		
17	RESPONSE 1	PROVIDED BY: Michelle Bethel, Water Revenue Bureau
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1	PA-ADV-80. PLEASE PROVIDE A COPY OF ALL REPORTS, EVALUATIONS, MEMOS,
2	ANALYSES OR OTHER WRITTEN DOCUMENTS OF ANY NATURE
3	PREPARED SINCE JANUARY 2012 ESTABLISHING PERFORMANCE
4	INDICATOR TARGETS TO BE MET WITHIN THE NEXT YEAR AFTER
5	PUBLICATION OF THE PERFORMANCE TARGETS; WITHIN THE NEXT
6	TWO YEARS AFTER PUBLICATION OF THE PERFORMANCE TARGETS;
7	OR WITHIN THE NEXT THREE YEARS AFTER PUBLICATION OF THE
8	PERFORMANCE TARGETS, WITH RESPECT TO:
9	A. DEBT PREVENTION;
10	B. DEBT MANAGEMENT;
11	C. THE TREATMENT OF VULNERABLE CUSTOMERS;
12	D. CUSTOMER SATISFACTION.
13	
14	RESPONSE:
15	There are no reports, evaluations, memos, analyses or other written documents available that
16	capture the information requested.
17	
18	RESPONSE PROVIDED BY: Michelle Bethel, Water Revenue Bureau
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PA-ADV-81. PLEASE PROVIDE A SINGLE COPY OF ANY REPORT, EVALUATION,
STUDY OR OTHER WRITTEN DOCUMENT OF ANY NATURE, WITHIN
THE CUSTODY OR CONTROL OF THE COMPANY, WHETHER OR NOT
PREPARED BY OR FOR THE COMPANY, DATED WITHIN THE PAST FIVE
YEARS, IDENTIFYING, EVALUATING OR OTHERWISE DISCUSSING
WHY NONPAYING RESIDENTIAL CUSTOMERS DO NOT MAKE
CONTACT WITH THE UTILITY WHEN, IN RESPONSE TO BILL
NONPAYMENT, THOSE NONPAYING CUSTOMERS RECEIVE A REQUEST
OR NOTICE TO CONTACT A UTILITY TO AVOID THE SHUT OFF OF
SERVICE.

RESPONSE:

There are no reports, evaluations, memos, analyses or other written documents available that capture the information requested.

PA-ADV-82. PLEASE PROVIDE A SINGLE COPY OF ANY REPORT, EVALUATION,
STUDY OR OTHER WRITTEN DOCUMENT OF ANY NATURE, WITHIN
THE CUSTODY OR CONTROL OF THE COMPANY, WHETHER OR NOT
PREPARED BY OR FOR THE COMPANY, DATED WITHIN THE PAST FIVE
YEARS, IDENTIFYING, EVALUATING OR OTHERWISE DISCUSSING
WHY RESIDENTIAL CUSTOMERS DO NOT SUCCESSFULLY COMPLETE
DEFERRED PAYMENT PLANS (SOMETIMES KNOWN AS PAYMENT
AGREEMENTS OR OTHER SIMILAR TERMS) IN ORDER TO AVOID THE
SHUT OFF OF SERVICE FOR NONPAYMENT.

RESPONSE:

There are no reports, evaluations, memos, analyses or other written documents available that capture the information requested.

PA-ADV-83. PLEASE PROVIDE A COMPREHENSIVE LIST OF THE OPTIONS THAT A RESIDENTIAL CUSTOMER HAS TO PAY THEIR UTILITY BILL. THE LIST OF PAYMENT OPTIONS SHOULD INCLUDE, IF AVAILABLE, PAYMENT THROUGH A THIRD PARTY AUTHORIZED COMMUNITY PAY STATION (OR PAYMENT CENTER). IN ADDITION, FOR EACH OPTION:

- A. FOR EACH MONTH FOR THE MOST RECENT 36 MONTHS

 AVAILABLE, PLEASE PROVIDE THE NUMBER OF PAYMENTS

 RECEIVED THROUGH EACH OPTION;
- B. INDICATE THE FEE, IF ANY, WHICH IS IMPOSED TO UTILIZE THAT OPTION;
- C. PROVIDE A DETAILED COST JUSTIFICATION FOR THAT FEE; AND
- D. FOR EACH MONTH FOR THE MOST RECENT 36 MONTHS

 AVAILABLE, PLEASE PROVIDE THE DOLLARS GENERATED BY

 SUCH FEE.

RESPONSE:

Please see attachment response PA ADV 83 Payment Option Report. Please note that there are no City fees for any payment option, however the third-party credit card processor does charge a fee of \$3.95 per transaction. The credit card processing fee is collected by and for the City's third-party credit card processing vendor therefor there are no reports available that capture the data requested in subsection (D).

Payment Type	Definition
ACH	Automated Clearing House (wire transfer)
ALL1	Alliance One (collection agency)
ECK	Electronic Check payment via City's web payment site
IVR	Interactive Voice Response (credit payment by phone)
PENN	Penn Credit (collection agency)
POS	Point of Sale (in person payment)
RCB	Revenue Collection Bureau (collection agency)
REMITPRO	Mailed-in payment
WEB	Credit card payment via City's web payment site
ZC	ZipCheck, automated direct debit via PNC Bank
ZP	ZipPhone, automated bank debit from customer's bank
	and/or third party pay station

1	PA-ADV-85.	FOR THE MOST RECENT 12 MONTH PERIOD AVAILABLE, PLEASE
2		PROVIDE ANY INFORMATION THAT IS AVAILABLE THAT IS BROKEN
3		DOWN GEOGRAPHICALLY (E.G., ZIP CODE, CENSUS TRACT)
4		REGARDING:
5		A. BILLINGS;
6		B. PAYMENTS;
7		C. ARREARS;
8		D. DISCONNECTIONS, RECONNECTIONS;
9		E. PAYMENT PLANS.
10		F. OTHER CREDIT AND COLLECTION ACTIVITIES.
11		
12	RESPONSE:	
13	See respons	se attached PA-ADV-85 AR Aging by Postal Zone Report. Please note there are no
14	reports ava	ilable that capture the data requested in subsections (A), (B), and (D) through (F).
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16	RESPONSE	PROVIDED BY: Michelle Bethel, Water Revenue Bureau
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RESPONSE:

The report below, and attached as PA-ADV-86_Attachment, is intended to answer the questions posed by PA-ADV-86 parts a through l. Data are shown by calendar month as requested. Data for July, August, September, October and November of 2017 are provided. A synopsis of data in each column is provided below.

Month	Year	(a) New TAP Enrollees	(c) Number of TAP New Enrollees Having Preprogram Arrears at the Time of Enrollment	(d) Aggregate Dollars of Preprogram Arrears for TAP New Enrollees at the Time of Enrollment	(b) Total TAP Participants
7	2017	3	3	\$25,046.45	0
8	2017	1,182	1,132	\$4,264,921.77	763
9	2017	524	495	\$1,459,527.60	1,434
10	2017	545	530	\$1,851,603.41	1,992
11	2017	703	684	\$2,030,145.06	2,615

Month	Year	(e) Number of TAP Bills Issued	(f) Dollars of TAP Bills Issued	(g) Dollars of TAP Credits/Discounts	(h) Number of TAP Payments
7	2017	0	0	0	0
8	2017	764	\$13,447.11	\$41,592.10	239
9	2017	1,435	\$25,207.86	\$92,079.82	763
10	2017	1,992	\$40,617.58	\$113,123.70	1,336
11	2017	2,624	\$62,040.17	\$139,092.15	1,628

Month	Year	(i) Dollars of TAP Payments	(j) Number of TAP In-Full and On- Time Payment s	(k) Number of Participants With TAP Balance Aged 0-30 days	(k) Number of Participants With TAP Balance Aged 31-60 days	(k) Number of Participants With TAP Balance Aged 61-90 days	(k) Number of Participants With TAP Balance Aged 91-120 days	(k) Number of Participants With TAP Balance Aged 121+ days
7	2017	0	0	0	0	0	0	φ
8	2017	\$3,959.20	227	762	0	0	0	φ
9	2017	\$13,356.49	662	1,434	189	0	0	φ
10	2017	\$25,314.19	1,147	1,992	112	79	0	•
11	2017	\$36,616.34	1,290	2,614	311	19	40	•

Month	Year	(l) Dollars of TAP Balance Aged 0-30 days	(l) Dollars of TAP Balance Aged 31- 60 days	(l) Dollars of TAP Balance Aged 61- 90 days	(l) Dollars of TAP Balance Aged 91- 120 days	(l) Dollars of TAP Balance Aged 121+ days
7	2017	0	0	0	0	0
8	2017	\$13,447.11	0	0	0	0
9	2017	\$25,238.32	\$3,092.23	0	0	0
10	2017	\$47,015.90	\$1,864.16	\$1,220.35	0	0
11	2017	\$72,998.79	\$6,461.74	\$315.59	\$632.75	0

Synopsis of Columns

(a) New TAP Enrollees

The number of applications approved for a TAP plan through the new application workflow and reporting software Customer Application Management Program (CAMP). This number includes all applications that were approved for TAP, regardless of the application's current status. If an applicant was approved for a plan in CAMP more than once, the most recent approval was used.

(c) Number of TAP New Enrollees Having Preprogram Arrears at the Time of Enrollment

The number of applications approved for a TAP plan as described in part (a) above with
arrears, defined as account balance, at the time of approval greater than \$0, as recorded from
Basis2 at the time of enrollment. Note that this excludes any balances that were in dispute or
bankruptcy at the time of approval.
(d) Aggregate Dollars of Preprogram Arrears for TAP New Enrollees at the Time of
Enrollment

The total dollar amount of arrears, defined as account balance, as defined in part (c) above. This excludes any balances that were in dispute or bankruptcy at the time of approval.

(b) Total TAP Participants

The number of customers that were issued a TAP bill during the calendar month in question. Customers issued more than one TAP bill during a calendar month were counted once. Customers not issued a TAP bill during a calendar month were not counted for the month in question. Note that depending on a customer's billing cycle, a customer enrolled in one month (counted in (a) above) is included in this number in the month in which receive their first bill, which may not be the same month that customer is enrolled.

(e) Number of TAP Bills Issued

The number of TAP bills issued to customers in item (b). Each TAP bill for a customer is counted. If a customer were issued more than one TAP bill during a calendar month, each bill is counted. Bills that have subsequently been reversed are not included.

(f) Dollars of TAP Bills Issued

The total dollar amount of TAP bills counted in item (e).

(g) Dollars of TAP Credits/Discounts

1	The total dollar amount of TAP discounts associated with TAP bills counted in (e) and (f) is
2	summed in this item.
3	
4	(h) Number of TAP Payments
5	During the calendar month, the count of distinct credits (payments) that are allocated to (that
6	is, pay off) debits associated with TAP bills issued at any time. If more than one payment was
7	made against a bill, each is counted.
8	
9	(i) Dollars of TAP Payments
10	During the calendar month, the total dollar amount of credits (payments) allocated to (that is,
11	pay off) debits associated with TAP bills issued at any time.
12	
13	(j) Number of TAP In-Full and On-Time Payments
14	The number of payments allocated during the calendar month to debit lines associated with
15	TAP bills within 30 days of the date the bill was issued which bring the balance of the bill to
16	\$0.
17	
18	(k) Number of Participants With TAP Balance Aged X-Y days
19	The number of participants with at least one TAP bill bearing an unpaid balance with an age
20	within the indicated range. The ranges provided are:
21	Number of Participants With TAP Balance Aged 0-30 days
22	Number of Participants With TAP Balance Aged 31-60 days
23	Number of Participants With TAP Balance Aged 61-90 days
24	Number of Participants With TAP Balance Aged 91-120 days
25	Number of Participants With TAP Balance Aged 121+ days
26	
27	An unpaid balance was determined as the total dollar amount of the account's TAP bills minus
28	the sum of all payments made against the bills prior to the creation date of the most recent TA

bill issued during the month in question. As described under item (h), a payment was determined as a credit allocated to a debit line associated with a TAP bill. The age of the unpaid balance was determined as the number of elapsed days between the creation date of the bill in question and the creation date of the most recent TAP bill issued during the calendar month in question.

Note that a TAP bill that is issued with a negative total is not counted as bearing a balance aged 0-30 days. Such bills will be included in the counts and sums in items (e) and (f).

(I) Dollars of TAP Balance Aged X-Y days

The total dollar amount of unpaid balances of TAP bills identified as described in part (k) above. The ranges provided are:

Dollars of TAP Balance Aged 0-30 days

Dollars of TAP Balance Aged 31-60 days

Dollars of TAP Balance Aged 61-90 days

Dollars of TAP Balance Aged 91-120 days

Dollars of TAP Balance Aged 121+ days

PA-ADV-87.	PLEASE PROVIDE BY MONTH SINCE JULY 2017 A DISTRIBUTION, IN
	BANDS OF \$50, OF PREPROGRAM ARREARS ON THE ACCOUNTS OF
	NEW TAP ENROLLEES.

RESPONSE:

A spreadsheet entitled PA-ADV-87_Attachment is included as attachment. This report is intended to show the distribution of pre-program arrears for TAP enrollees at the time of their enrollment per month. Data are shown by calendar month as requested. Data for July, August, September, October and November of 2017 are provided. "Pre-TAP arrears" is defined as the total account balance of a customer at the time of their enrollment in the TAP. Note that this excludes any balances that were in dispute or bankruptcy at the time of approval.

Synopsis of Columns

• Arrears Band: Account balance amounts for TAP enrollees at time of enrollment in bands of \$50.

The lower limit of an arrears band is inclusive, and the upper limit is exclusive. For instance, applications that are approved with a pre-TAP account balance of \$0.00 are counted in the \$0.00-\$50.00 band, and not in the \$-50.00-\$0.00 band.

Arrears Totals by Month, by Arrears Band: The total number of applications in each
arrears band approved during the month. Only the most recent enrollment for an
application is counted towards the arrears totals.

RESPONSE PROVIDED BY: Raftelis Financial Consultants, Inc.

PA-ADV-88. PLEASE PROVIDE, BY MONTH SINCE JULY 2017:

- A. THE NUMBER OF NEW TAP ENROLLEES THAT WERE SUBJECT TO
 AN ONGOING DEFERRED PAYMENT ARRANGEMENT FOR
 PREPROGRAM ARREARS AT THE TIME OF TAP ENROLLMENT.
- B. THE NUMBER OF NEW TAP ENROLLEES THAT WERE CURRENT PARTICIPANTS IN PWD'S EXISTING WRAP PROGRAM AT THE TIME OF TAP ENROLLMENT.

RESPONSE:

Ongoing Deferred Payment Arrangements July 2017-November 2017

Approval Month	Approval Year	b) 1) WRAP- TENFIVE	b) 2) WRAP- WRBCC	a) 1) Other Ongoing Payment Arrangements	b) 3) Total WRAP Participants	a) 2) Total Ongoing Payment Arrangements
7	2017	0	0	0	0	0
8	2017	33	487	31	520	551
9	2017	15	88	10	103	113
10	2017	17	193	8	210	218
11	2017	8	161	8	169	177
All Time	2017	73	929	57	1,002	1,059

This report shows the number of ongoing deferred payment arrangements at the time of TAP enrollment, per month, from July 2017 through November 2017. This information is also provided in PA-ADV-88 attachment attached. "Ongoing deferred payment arrangements" is defined as previously existent payment arrangements with an expiration date after the date of TAP enrollment.

"Current participants in the WRAP program" is defined as TAP enrollees with a TENFIVE or WRBCC payment arrangement at the time of TAP enrollment. For clarity, these columns have been separated into (b)(1), (b)(2), and (b)(3), defined in more detail below.

For all applications, only the most recent TAP enrollment is counted as the month of enrollment.

Synopsis of Columns

- 1. Other Ongoing Payment Arrangements: The total of all TAP enrollees approved within the given month with ongoing payment arrangements at the time of TAP enrollment, excluding those with ongoing WRAP payment arrangements.
- 2. Total Ongoing Payment Arrangements: The total of all TAP enrollees approved within the given month with ongoing payment arrangements at the time of TAP enrollment, including those with ongoing WRAP payment arrangements and those with ongoing enrollment in other plans.
- 3. WRAP-TENFIVE: The total of all TAP enrollees approved within the given month with ongoing TENFIVE plans at the time of enrollment.
- 4. WRAP-WRBCC: The total of all TAP enrollees approved within the given month with ongoing WRBCC plans at the time of enrollment.
- 5. Total WRAP Participants: The total of all TAP enrollees approved within the given month with ongoing WRBCC and TENFIVE plans at the time of enrollment.

RESPONSE PROVIDED BY: Raftelis Financial Consultants, Inc

PA-ADV-89. PLEASE PROVIDE, BY MONTH SINCE JULY 2017:

- A. THE NUMBER OF NOTICES OF SHUT OFF FOR NONPAYMENT ISSUED TO TAP PARTICIPANTS.
- B. THE NUMBER OF TAP PARTICIPANT ACCOUNTS THAT WERE SHUT OFF FOR NONPAYMENT.
- C. THE NUMBER OF FINAL BILLS ISSUED TO TAP PARTICIPANT ACCOUNTS.
- D. THE NUMBER OF FINAL BILLS ISSUED TO TAP PARTICIPANT ACCOUNTS THAT HAD AN ARREARAGE ON THAT FINAL BILL.
- E. THE AGGREGATE DOLLAR VALUE OF ARREARAGES CONTAINED ON FINAL BILLS ISSUED TO TAP PARTICIPANT ACCOUNTS.

RESPONSE:

Month	Year	(a) Notices of Shut Off for Nonpayment Issued to TAP Participants	(b) TAP Participant Accounts That Were Shut Off for Nonpayment
7	2017	0	0
8	2017	1	0
9	2017	2	0
10	2017	7	0
11	2017	2	0

This report is intended is intended to answer the questions posed by PA-ADV-89 parts a and b by providing the number of shut-off notice letters issued to TAP participants and the number of TAP participants shut off for nonpayment. This is also included as an attachment, PA-ADV-89 Attachment.

Parts (c) through (e) of this question refer to 'final bills.' WRB does not issue final bills in response to property sale. Rather, final bills are only issued when an account is discontinued (and water meter removed). This is a rare occurrence and as such is not reported here. In the

much more common case of property sale, a service premise is linked to a new customer, creating a new account that inherits any unpaid debts from the old account.

Synopsis of Columns

(a) Notices of Shut Off for Nonpayment Issued to TAP Participants

The number of shut-off notice letters issued in Basis2 to customers during participation in the TAP program. Included in this count are first and second shutoff notices. A customer was defined as a TAP participant if that customer was issued a TAP bill during the month of the shut-off notice. During the month of a customer's first TAP bill, the customer is considered a participant as of the date the bill was issued. Where a customer was issued more than one shut-off notice, each notice is counted separately.

(b) TAP Participant Accounts That Were Shut Off for Nonpayment

The number of water customers in Basis2 for which a shut-off work order was completed while that customer was a participant in the TAP program. A customer was defined as a TAP participant if that customer was issued a TAP bill during the month of the shut-off. During the month of a customer's first TAP bill, the customer is considered a participant as of the date the bill was issued.

RESPONSE PROVIDED BY: Raftelis Financial Consultants, Inc.

the new unified application and review process for all customer assistance programs.

Similar training documents were provided for general PWD personnel and TAP Intake PWD personnel. Find manuals provided for PWD personnel describing the TAP program in sections d, e, f, g, o, and r of the PA-ADV-90_ATTACHMENT document. These sections contain the information presented during the TAP training sessions. The group training sessions and their respective dates are listed below.

Date	Group	Pages
	Collections, Law, Accounting, TRB, AAU, &	
June 8, 2017	Clerical	105-323
June 8, 2017	Collections	160-211
June 8, 2017	TRB Unit	212-271
	Collections, Law, Accounting, TRB, AAU, &	
June 9, 2017	Clerical	105-323
June 9, 2017	Accounting	105-159
June 9, 2017	Account Analysis	272-323
	Collections, Law, Accounting, TRB, AAU, &	
June 15, 2017	Clerical	105-323
June 15, 2017	Clerical	370-778
	Collections, Law, Accounting, TRB, AAU, &	
June 23, 2017	Clerical	105-323

B. Training materials for TAP personnel describing the intake process can be found in sections a, b, l, o, r, and p (Specifically, pages 845 – 896 of the entire PA-ADV-90_ATTACHMENT document /pages 59-109 of the Standard Operating Procedures document describe the application review process that would be most useful to this group of personnel). These sections contain information presented during the TAP training sessions as well as documentation of the application review process. The group training sessions and their respective dates are listed below.

26	
27	
28	

Date	Group	Pages
June 6, 2017	Intake and Call Center	331-367
June 6, 2017	WRB TAP	1-54
	PWD Call Center, WRB Call Center, and	
June 6, 2017	Intake	331-367
June 7, 2017	Intake and Call Center	331-367
June 7, 2017	WRB TAP	1-54
	PWD Call Center, WRB Call Center, and	
June 7, 2017	Intake	331-367
June 12, 2017	TAP Group 1	55-93
June 13, 2017	TAP Group 1	55-93
June 13, 2017	TAP Group 2	370-778
June 14, 2017	TAP Group 2	370-778
June 24, 2017	Call Center	331-367
June 24, 2017	Intake and Call Center	331-367
June 24, 2017	WRB TAP	1-54
October 7,		
2017	Call Center	996-1017

- C. The manual describing the TAP program can be found in section s of the PA-ADV-90_Attachment document. Section p contains the Standard Operating Procedures document, which provides documentation about various aspects of the program in terms of completing applications, reviewing applications, operating the CAMP software, and making decisions for TAP applications.
- D. The manual describing the TAP intake process can be found in section s of the PA-ADV-90_Attachment document. Section p contains the Standard Operating Procedures document, which provides documentation about various aspects of the program in terms of

completing applications, reviewing applications, operating the CAMP software, and making decisions for TAP applications.

E. Training materials provided to PWD personnel involved with TAP intake describing the TAP intake process can be found in sections a, b, l, o, and r of the PA-ADV-90_Attachment document. These sections contain the training materials presented during several training sessions held during the dates listed below.

Date	Group	Pages
June 6, 2017	Intake and Call Center	331-367
June 6, 2017	WRB TAP	1-54
June 6, 2017	Intake and Call Centers	331-367
June 7, 2017	Intake and Call Centers	331-367
June 7, 2017	WRB TAP	1-54
	PWD Call Center, WRB Call Center, and	
June 7, 2017	Intake	331-367
June 12, 2017	TAP Group 1	55-93
June 13, 2017	TAP Group 1	55-93
June 13, 2017	TAP Group 2	370-778
June 14, 2017	TAP Group 2	370-778
June 24, 2017	Call Center	331-367
June 24, 2017	Intake and Call Centers	331-367
June 24, 2017	WRB TAP	1-54
October 7,		
2017	Call Center	996-1017

F. Training materials provided to persons other than PWD personnel can be found in section q of the PA-ADV-90_ATTACHMENT document. This section contains the training materials presented during several training sessions held during the dates listed below.

Date	Group	Pages
June 6, 2017	Partner Organizations	990-995
June 7, 2017	Partner Organizations	990-995
June 15, 2017	ECA	990-995

G. Outreach materials provided to PWD customers describing who is qualified for and/or how to enroll in TAP can be found in section s of the PA-ADV-90_Attachment document. This section contains examples of various types of publications generated for and sent to PWD customers. These examples explain general details of the program and provide information on how to apply. The item list and page references are listed in the table below.

Date	Туре	Page	
7/20/2017	Bill Stuffer	10	9
11/27/2017	Email with info on how to apply to customers who provided an email	102	20
Email with info on how to apply to customers who provided an email		102	21
07/2017-Present	Application (User-friendly redesign)	10	18

H. Outreach materials provided to the public other than PWD customers describing who is qualified for and/or how to enroll in TAP can be found in section t. This section contains images of advertising placed at subway stations, bus stops, on bus exteriors, as well as the interior of subways. The item list and page references are listed in the table below.

Ш

Date	Туре	Page
06/2017 - 08/2017	Newspaper Ad	1035
7/20/17 - 8/30/17; 10/16/17 -11/26/17	Bus Shelter	1031
7/20/17 - 8/30/17; 10/16/17 -11/26/17	Bus Ad	1030
7/20/17 - 8/30/17; 10/16/17 -11/26/17	Subway Ad (Interior)	1032
7/20/17 - 8/30/17; 10/16/17 -11/26/17	Subway Ads (Exterior)	1033
06/2017 - present	Fact Sheet: FAQ (includes who is qualified)	1026-1029
	Fact Sheet: Get Ready to Apply (includes	
07/2017 - present	how to enroll)	1038-1039
	Fact Sheet: Get Ready to Apply (includes	
07/2017 - present	how to enroll) (Spanish)	1036-1037
		1022,
03/2017 - present	Fact Sheet: New Ways To Get Help	1023
	Fact Sheet: Special Hardships (includes who	
07/2017 - present	is qualified)	1024
6/20/2017	Press Conference Materials	1034

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