



CITY OF PHILADELPHIA

WATER DEPARTMENT
JEFFERSON CENTER
1101 Market Street
Philadelphia, PA 19107-2994

RANDY E. HAYMAN, Esq.
Water Commissioner

March 31, 2025

James P. Leonard, Esquire
Records Commissioner
City Hall, Room 158
Philadelphia, PA 19102

Re: Formal Notice of Proposed Changes in Rates and Charges; Annual Adjustment of Tiered Assistance Program Rate Rider Surcharge Rates (TAP-R); Final Proposed TAP-R Reconciliation Statement

Dear Commissioner Leonard:

The purpose of this correspondence is to provide formal notice of changes in rates and charges proposed by the Philadelphia Water Department (“Department” or “PWD”) to implement the annual adjustment to the Tiered Assistance Program Rate Rider Surcharge Rates (“TAP-R”) and to revise related water, sewer and fire service connection quantity charges. The proposed changes in rates and charges, if approved by the Philadelphia Water, Sewer and Storm Water Rate Board (“Rate Board” or “Board”), will take effect on September 1, 2025. The following rates and charges will be impacted by the new TAP-R:

<u>Rate/Charge</u>	<u>Rates and Charges Section Reference</u>
Total Water Quantity Charges	Section 2.1(c)(l)
Total Sewer Quantity Charges	Section 3.3(b)(l)
Total Fire Service Quantity Charges	Section 9.1 (d)(l)
TAP-R Surcharge Rates	Section 10.3

The Formal Notice filing is provided via the enclosed USB flash drive and is available at the Dropbox website below:

<https://www.dropbox.com/scl/fo/bi5mgs0uedgoe2iwhljmc/AH21fdQ0oWjnbsAM03zj7N8?rlkey=enocgukg2tyx9t5f09gq11a7d&st=ha4l5kgo&dl=0>.

No password is needed to access the above website.

The aforesaid filing will also be made available at the Rate Board's website: <https://www.phila.gov/departments/water-sewer-storm-water-rate-board/rate-proceedings/>. Once the rate filing is available on the Rate Board's website, the Dropbox website will not be needed and will expire.

The filing includes the proposed rates and charges, which are subject to review and authorization by the Rate Board.¹ The Board will schedule public hearings on the proposed rates and charges, as required by Section 13-101(3)(f) of the Philadelphia Code ("Code").

This notice is submitted in accordance with the ratemaking authority and procedural requirements specified in Sections 5-801 and 8-407 of the Philadelphia Home Rule Charter ("Charter"), Sections 13-101 and 21-1703 of the Code, Sections II.A.2(b) and 11.C.1 of the Rate Board's regulations, and the Rate Board's 2018 Rate Determination. The Department's Final Proposed TAP-R Reconciliation Statement with the accompanying exhibits is enclosed, along with a memorandum from the Law Department approving these documents as to form.

Please make the aforesaid documentation, together with the Department's proposed changes in rates and charges, available for inspection and arrange for advertising in accordance with Section 8-407 of the Charter and Section 21-1703 of the Code.² The text for the public notice to be published in the newspapers is attached. Thank you for your attention to this matter.

Sincerely,



Randy E. Hayman, Esq.
Water Commissioner

cc: Rate Board
The Public Advocate and all Participants in the 2024 TAP-R Rate Proceedings (w/ enc.)

¹ The proposed rates and charges will be fully vetted as part of the rate process before the Rate Board.

² See Rate Board Regulations at Section II.A.2 and II.C.1.

**PHILADELPHIA WATER, SEWER
AND STORM WATER RATE BOARD**

RECORDS DEPARTMENT

NOTICE IS HEREBY GIVEN, in accordance with Section 5-801 of the Philadelphia Home Rule Charter, Section 13-101 of the Philadelphia Code and the Regulations of the Philadelphia Water, Sewer and Storm Water Rate Board (Rate Board), on March 31, 2025, the Philadelphia Water Department filed the Formal Notice of its Tiered Assistance Program Rate Rider Surcharge rates (TAP-R), Final Proposed Reconciliation Statement and proposed annual rate adjustments in water, sewer and fire service rates to become effective September 1, 2025. The Formal Notice can be viewed online at: www.phila.gov/water/rateboard, or may be examined at the Department of Records. Anyone wishing to be a Participant in the TAP-R proceeding should register by April 7, 2025 by sending notice to the Rate Board, c/o Deland Bryant, City of Philadelphia Law Dept., 1515 Arch St., 17th Fl., Philadelphia PA 19102 or register via email at: WaterRateBoard@phila.gov.

James P. Leonard, Esq.
Records Commissioner



City of Philadelphia

LAW DEPARTMENT
Water Division
1101 Market Street
5th Floor
Philadelphia, PA 19107
(215) 685-6160
neal.sellers@phila.gov

MEMORANDUM

TO: Randy E. Hayman, Commissioner

FROM: Neal Sellers, Senior Attorney

DATE: March 31, 2025

RE: Formal Notice of Proposed Changes in Rates and Charges - Annual Adjustment of Tiered Assistance Program Rate Rider Surcharge Rates (TAP-R) - Final Proposed TAP-R Reconciliation Statement

I have reviewed the Formal Notice and the Final Proposed Reconciliation Statement with accompanying exhibits. I find these documents to be legal and in proper form. In accordance with Section 5-801 of the Philadelphia Home Rule Charter, Section 13-101 of the Philadelphia Code and the Regulations of the Philadelphia Water, Sewer and Stormwater Rate Board, you may forward the Formal Notice and the referenced documents to the Department of Records where they will be available for public inspection.

TAP-R Proposed Reconciliation Filing Index - Formal Notice¹

Title	PDF Page Number
Proposed Reconciliation Statement	1
Schedule BV-1: TAP Rider Reconciliation Calculations	5
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Schedule BV-3: TAP-R Reconciliation Assumptions	15
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Schedule RFC-1: Digest to accompany reports and projections to support TAP Reconcilable Rate Rider calculation	51
Schedule RFC-2: Raftelis Financial Consultants Resumes	55
Schedule RFC-3: TAP Reconcilable Rider Reports and Projection Model	75
PWD Exhibit 1A: Proposed Rates and Charges	N/A
PWD Exhibit 1B: Proposed Rates and Charges (Redline)	N/A

¹There have been no substantive changes since the Advance Notice was filed. Only the headers and dates have been changed to indicate the Formal Notice filing.



Philadelphia Water Department

PROPOSED RECONCILIATION STATEMENT FORMAL NOTICE

Date: March 31, 2025
To: Philadelphia Water Department
From: Black & Veatch Management Consulting, LLC
Subject: Proposed Reconciliation Statement for the Tiered Assistance Program Rate Rider Surcharge Rates (TAP-R) - Effective September 1, 2025

Introduction

This Proposed Reconciliation Statement for the Tiered Assistance Program (TAP) Rate Rider Surcharge Rates (TAP-R) to become effective as of September 1, 2025, is submitted on behalf of the Philadelphia Water Department (Water Department or PWD). This submission is supported by the following documents: Schedules BV-1 through BV-4, Schedules RFC-1 through RFC-3, and Exhibits 1A and 1B. The reconciliation calculations, resulting bill impacts and supporting documentation including data used in completing the TAP-R reconciliation calculations were prepared with the assistance of Black & Veatch Management Consulting, LLC (Black & Veatch), and Raftelis Financial Consultants. Resumes of the above consultants are attached hereto for your reference.

Proposed TAP-R Rates – Effective September 1, 2025

The proposed Water TAP-R rate, effective September 1, 2025, is \$3.87 per thousand cubic feet (MCF) of water usage. The proposed Sewer TAP-R rate, effective September 1, 2025, is \$5.67 per MCF of sewer billed volume.

Rates and Charges That Will Increase or Decrease

The following rates and charges will be impacted by the new TAP-R rates:

<u>Rates/Charges</u>	<u>Rates and Charges Section Reference</u>
Total Water Quantity Charges	Section 2.1(c)(1)
Total Sewer Quantity Charges	Section 3.3(b)(1)
Total Fire Service Quantity Charges	Section 9.1(d)(1)
TAP-R Surcharge Rates	Section 10.3

PWD Exhibit No. 1B, attached hereto, shows the proposed revisions to PWD’s rates and charges, reflecting the calculated TAP-R rates effective September 1, 2025.

Supporting Calculations and Data

The calculations supporting the derivation of the proposed TAP-R rates are provided in Schedule BV-1.

Table 1 provides an overall summary of the TAP-R reconciliation calculations presenting the water and sewer portions of Projected TAP Billing Loss (C-Factor), Experienced and Estimated Over/Under Collection of TAP costs (E-Factor), Interest on Over/Under Collection Amount (I-Factor), the resulting Net Recoverable Costs [i.e.

C-(E+I)], the projected water and sewer billed volumes (S-Factor) for the Next Rate Period of September 1, 2025 through August 31, 2026 and the calculated water and sewer TAP-R rates.

Table 2 presents the calculation of the projected TAP Billing Loss or C-Factor for the Next Rate Period of September 1, 2025 through August 31, 2026 and the apportionment of the total TAP Billing Loss between water and sewer.

Tables 3-W and 3-WW present the calculation of the Experienced & Estimated Net Over/Under Collection or E-Factor for the Most Recent Period of September 1, 2024 through August 31, 2025 for water and sewer, respectively. This calculation reconciles the discounts provided to TAP Participants with the estimated TAP-R revenues collected from Non-TAP customers. In addition, the E-Factor is adjusted to:

- Account for the prior E & I Factor adjustments reflected in the 2024 Rate Adjustment. This is referred to in the tables as the “Prior E & I Factor Adjustments,” which captures the amounts of over/(under) collection and interest acknowledged in the current TAP-R rates.
- Reconcile estimated amounts of Over/Under Collection for the period of April 2024 through August 2024 included in the prior reconciliation with the actuals for the same period. Tables 3-W-A and 3-WW-A present the reconciliation of estimated amounts of Over/Under Collection for the period of April 2024 through August 2024.

Tables 4-W and 4-WW present the calculation of Interest on the Net Over/Under Collection Amount or I-Factor for the Most Recent Period of September 1, 2024 through August 31, 2025 for water and sewer, respectively. As the TAP-R rates established during the 2024 TAP-R Annual Adjustment Determination were designed to account for the under recovery of TAP discounts, Net Over/Under Collection is compared to the cumulative over/under collection relative to the revenue requirements associated with the E and I-Factors. In addition, the I-Factor is adjusted to reconcile estimated amounts of interest for the period of April 2024 through August 2024 included in the prior reconciliation based upon the actuals for the same period. Tables 4-W-A and 4-WW-A present the reconciliation of estimated amounts of interest for the period of April 2024 through August 2024. Table 5 presents the calculation of the final water and sewer quantity charges, effective September 1, 2025, resulting from the addition of the proposed TAP-R rates to the currently proposed base rates for FY 2026 based on the 2025 Rate Proceeding.

Underlying Assumptions

The assumptions used in developing the TAP-R calculations are detailed in Schedule BV-3. There are three primary types of assumptions: 1) Codified Factors, 2) Estimation Assumptions and 3) Projection Assumptions.

Codified factors were established consistent with the 2023 Rate Determination and codified in Section 10.1 of the Philadelphia Water Department Rates and Charges.

Codified Factors include:

- **Allocation Factors** – used to apportion TAP Billing Losses to water and sewer
 - Water TAP Cost Allocation: 42 percent
 - Sewer TAP Cost Allocation: 58 percent
- **Collection Factor** – Used to adjust TAP Billing Loss and TAP-R billings for the Most Recent Period
 - Collection Factor: 96.99 percent
- **Interest Rate** - Applied to under/over collection (i.e., I-Factor). The interest rate is based upon the 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 2, 2025.
 - Interest Rate: 4.17 percent

Estimation Assumptions for the remainder of the Most Recent Period (December 2024 through August 2025) include:

- TAP Participants;
- TAP Billing Loss;
- TAP Billed Volumes; and
- Non-TAP Billed Volumes.

Schedules BV-3 and RFC-1 provide additional details regarding the derivation of the TAP related estimation assumptions.

Projection Assumptions for the Next Rate Period include:

- **TAP Participants** – An average of approximately 60,827 TAP Participants per month as provided by Raftelis Financial Consultants (refer to Schedule RFC-1 and 3).
- **TAP Billing Loss** – Estimated based upon the projected number of TAP Participants for the Next Rate Period and the average discount of \$54.62 per TAP Participant. Total TAP Billing Loss for the Next Rate Period is assumed to be approximately \$39.9 million as provided by Raftelis Financial Consultants.
- **Non-TAP Billed Volumes** - Estimated based upon the average Non-TAP Billed Volumes for the 12-month period of December 2023 through November 2024 and adjusted to reflect Non-TAP Discounts (refer to Schedule BV-3).

Methodology Used to Complete the TAP-R Reconciliation Calculations

The calculations are based upon the following equation and computation approach as currently defined in Section 10.1 of the Philadelphia Water Department Rates and Charges.

TAP Equation

$$TAP-R = \frac{(C) - (E + I)}{S}$$

C-Factor

The calculation of the C-Factor is presented in Table 2 of Schedule BV-1. The C-Factor is calculated as the projected monthly number of TAP Participants for the Next Period multiplied by the average discount per TAP Participant as provided by Raftelis Financial Consultants. The C-Factor is allocated to the water and sewer TAP-R based on the codified Allocation Factors.

E-Factor

The calculation of the E-Factor is presented in Tables 3-W and 3-WW of Schedule BV-1. The E-Factor is calculated as Adjusted Actual TAP Discounts minus the Estimated Non-TAP TAP-R Revenues Experienced.

The Adjusted Actual TAP Discounts, which represents the level of TAP Discounts to be recovered by the TAP-R during Prior Rate Period, is calculated as the estimated TAP Discounts net of TAP-R billings to TAP Participants multiplied by the system codified Collection Factor.

The Estimated Non-TAP TAP-R Revenues Experienced, which represents the level of TAP-R revenue from Non-TAP Customers during the Prior Rate Period, is calculated as the product of the Non-TAP Customer Water Sales and the TAP-R rate for the Prior Rate Period multiplied by the system codified Collection Factor.

The resulting over/under collection is adjusted to account for the prior E & I Factor adjustments reflected in the 2024 Rate Adjustment and the difference in the estimated amounts of over/under collection for the period of April 2024 to August 2024 as included in the 2024 Rate Adjustment and the updated actuals for the same period.

I-Factor

The calculation of the I-Factor is presented in Tables 4-W and 4-WW of Schedule BV-1. The I-Factor is calculated monthly as the cumulative E-Factor, adjusted for the anticipated recovery related to the E+I components of the revenue requirements, multiplied by the Interest Rate.

S-Factor

The S-Factor is presented on Line 5 of Table 1 of Schedule BV-1. The S-Factor, which represents the projected Non-TAP- customer sales volumes for the Next Rate Period, is calculated based on the average monthly Non-TAP sales volume¹ for the 12-month period of December 2023 to November 2024.

The detailed methodology used to complete the TAP-R calculations is described in Schedule BV-4.

Effects of the Revised Rates on Bills of Typical Small User Customers

Table C-4, in Schedule BV-2, presents a series of typical or representative combined residential water, sanitary sewer, and stormwater monthly bills for the 5/8-inch meter customers under the Department's proposed² base and TAP-R rates (*effective September 1, 2025*, if approved by the Rate Board) as well as the existing base and TAP-R rates. A typical PWD residential customer has a 5/8-inch meter and uses about 0.43 Mcf (thousand cubic feet), approximately 430 cubic feet, monthly. TAP-R rates would increase typical residential customer bills by \$0.89 or 1.1 percent compared to existing rates. Under the proposed base and TAP-R rates, this customer's monthly bill would increase from \$81.77 to \$91.31, an increase of \$9.54 or about 11.7 percent.

A typical PWD senior citizen discount customer has a 5/8-inch meter and uses about 0.3 Mcf (thousand cubic feet), approximately 300 cubic feet, monthly. TAP-R rates would increase typical senior residential customer bills by \$0.46 or 0.9 percent compared to existing rates. Based on the results presented in Table C-4, under the Department's proposed base and TAP-R rates, this customer's monthly bill would increase from \$50.32 to \$55.87, an increase of \$5.55 or about 11.0 percent.

Table C-5, in Schedule BV-2, presents a series of typical or representative combined non-residential water, sanitary sewer, and stormwater monthly bills under the Department's approved base and proposed TAP-R rates for multiple meter sizes and various parcel characteristics (i.e., gross and impervious area). A typical PWD small business customer has a 5/8-inch meter and uses about 0.55 Mcf (thousand cubic feet), approximately 550 cubic feet, monthly. A parcel with gross area of 5,500 square feet and impervious area of 4,000 square feet is assumed for development of the typical bill comparison. TAP-R rates would increase typical small commercial business customer bills by \$1.13 or 0.8 percent compared to existing rates. Under the proposed base and TAP-R rates, this customer's monthly bill would increase from \$137.38 to \$150.49, an increase of \$13.11 or about 9.5 percent.

¹ Non-TAP billed volumes are adjusted to reflect Non-TAP Discounts (refer to Schedule BV-3 and 4 for further discussion).

² The proposed base rates are pending approval from the Rate Board in the 2025 Rate Proceeding.

Table 1 - Calculation of TAP Rider Rates Effective September 01, 2025 (FY 2026)

	TOTAL	Water	Wastewater
	Amount	Amount	Amount
(1) C = Projected TAP Billing Loss ^a	\$ 39,866,915	\$ 16,744,104	\$ 23,122,810
(2) E = Experienced & Estimated Net Over/Under Collection ^b	\$ (9,211,476)	\$ (3,853,469)	\$ (5,358,007)
(3) I = Interest on Experienced & Estimated Net Over/Under Collection ^c	\$ (185,822)	\$ (78,011)	\$ (107,811)
(4) Net Recoverable Costs ^d : (C) - (E + I)	\$ 49,264,213	\$ 20,675,585	\$ 28,588,628
(5) S = Projected Non-TAP Sales for Next Rate Period (MCF) ^e		5,345,617	5,040,140
(6) TAP-R Surcharge^f: (4)/(5)		\$ 3.87 /MCF	\$ 5.67 /MCF

Notes:

- ^a Recoverable TAP Billing Loss for the Next Rate Period. Refer to Table 2 for additional information.
- ^b Actual TAP Discounts versus TAP Revenue Collection for the Most Recent Period. Refer to Tables 3-W and 3-WW for further information.
- ^c Simple Annual Interest on Net Over/Under Collection for the Most Recent Period. Refer to Tables 4-W and 4-WW for further information. Interest rate of 4.17% as of January 02, 2025.
- ^d Net Recoverable Costs.
- ^e Estimated water and sewer sales for Non-TAP Customers for the Next Rate Period based upon the average monthly Non-TAP sales volume for the 12 month period of December 2023 to November 2024. Next Rate Period is assumed to be September 01, 2025 to August 31, 2026.
- ^f TAP-R Surcharge for the Next Rate Period.

Philadelphia Water Department
Table 2 - Projected TAP Lost Revenue (C-Factor) for Next Rate Period

Period	September 01, 2025 through August 31, 2026			Water 42%	Wastewater 58%
(1)	Projected TAP Billing Loss ^a	\$	39,866,915	\$ 16,744,104	\$ 23,122,810

Notes:

^a Projected TAP Billing Loss based upon the Projected Average Monthly Number of TAP Participants of 60,827 and the Average TAP Discount per Participant of \$54.62.

^b Allocation between Water and Wastewater per PWD Regulations - Rates and Charges Effective September 1, 2024 Section 10.1(a)(i) and Section 10.1(a)(ii).

Philadelphia Water Department								
Table 3-W - Experienced & Estimated Net Over/(Under) Collection (E-Factor) for Most Recent Period								
Billing Period	Total Actual TAP Discounts (Credits)	Billed TAP Water Sales (Mcf)	Total TAP-R Billed to TAP Participants	Adjusted Actual TAP Discounts (Credits)	Billed Non-TAP Water Sales (Mcf)	TAP-R Billed Non-Tap Water Sales	Estimated TAP-R Revenues Experienced	Over/(Under) Collection
	(1)	(2)	\$ 3.080 (3) = (2) * \$ 3.080/Mcf	\$ 96.99% (4) = [(1) - (3)] * 0.9699	(5)	\$ 3.080 (6) = (5) * \$ 3.080/Mcf	\$ 96.99% (7) = (6) * 0.9699	(8) = (7) - (4)
Prior E & I Factor Adjustments								\$ (5,189,622)
(a) Sep-24	\$ 1,342,863	42,225	\$ 130,052	\$ 1,176,305	491,267	\$ 1,513,101	\$ 1,467,557	\$ 291,252
(a) Oct-24	\$ 1,432,399	41,173	\$ 126,813	\$ 1,266,288	461,578	\$ 1,421,659	\$ 1,378,867	\$ 112,579
(a) Nov-24	\$ 1,261,931	36,061	\$ 111,068	\$ 1,116,222	437,840	\$ 1,348,549	\$ 1,307,958	\$ 191,736
(e) Dec-24	\$ 1,360,011	40,242	\$ 123,946	\$ 1,198,860	445,468	\$ 1,372,042	\$ 1,330,744	\$ 131,884
(e) Jan-25	\$ 1,373,611	40,645	\$ 125,186	\$ 1,210,848	445,468	\$ 1,372,042	\$ 1,330,744	\$ 119,896
(e) Feb-25	\$ 1,304,931	38,612	\$ 118,926	\$ 1,150,306	445,468	\$ 1,372,042	\$ 1,330,744	\$ 180,437
(e) Mar-25	\$ 1,370,177	40,543	\$ 124,873	\$ 1,207,821	445,468	\$ 1,372,042	\$ 1,330,744	\$ 122,923
(e) Apr-25	\$ 1,383,879	40,949	\$ 126,121	\$ 1,219,900	445,468	\$ 1,372,042	\$ 1,330,744	\$ 110,844
(e) May-25	\$ 1,397,718	41,358	\$ 127,383	\$ 1,232,098	445,468	\$ 1,372,042	\$ 1,330,744	\$ 98,646
(e) Jun-25	\$ 1,341,809	39,704	\$ 122,287	\$ 1,182,815	445,468	\$ 1,372,042	\$ 1,330,744	\$ 147,929
(e) Jul-25	\$ 1,395,482	41,292	\$ 127,179	\$ 1,230,127	445,468	\$ 1,372,042	\$ 1,330,744	\$ 100,617
(e) Aug-25	\$ 1,409,436	41,705	\$ 128,451	\$ 1,242,428	445,468	\$ 1,372,042	\$ 1,330,744	\$ 88,316
Total	\$ 16,374,247	484,509	\$ 1,492,285	\$ 14,434,015	5,399,897	\$ 16,631,687	\$ 16,131,073	\$ (3,492,564)
Adjustment for Prior Estimates								\$ (360,906)

From Table 3-WA

Notes:

- (a) - Actuals
- (e) - Estimated
- (1) - TAP Actual Discounts reflect water's 42.0% allocated portion of the Total TAP Discount.
- (2) - Estimated TAP Discount per participant and estimated billed sales volume per participant reflect projections developed by Rafelis. Refer to RFC-3.
- (3) & (6) - Water TAP-R Rates per PWD Regulations - Rates and Charges Effective September 1, 2024 Section 10.3(a)(1).
- (4) & (7) - Adjusted for system-wide collection factor in accordance with PWD Regulations - Rates and Charges Effective September 1, 2024 Section 10.1(b)(3).
- (5) - Estimated Non-TAP water sales volumes for December 2024 through August 2025 are based upon average sales for prior 12 month period.
- (8) - Over/(Under) Collection is based upon Rates that are inclusive of Prior E-Factor and I-Factor. The presented "Prior E & I Factor Adjustments" includes these amounts from 2024 Annual Rate Adjustment.

Total E-Factor Recovery \$ (3,853,469)

Line 2 in Summary Table

Philadelphia Water Department								
Table 3-WW - Experienced & Estimated Net Over/(Under) Collection (E-Factor) for Most Recent Period								
Billing Period	Total Actual TAP Discounts (Credits)	Billed Sewer Volume TAP Participants (Mcf)	Total TAP-R Billed to TAP Participants	Adjusted Actual TAP Discounts (Credits)	Billed Non-TAP Sewer Volume (Mcf)	TAP-R Billed Non-Tap Water Sales	Estimated TAP-R Revenues Experienced	Over/(Under) Collection
	(1)	(2)	\$ 4.400 (3) = (2) * \$ 4.400/Mcf	\$ 96.99% (4) = [(1) - (3)] * 0.9699	(5)	\$ 4.400 (6) = (5) * \$ 4.400/Mcf	\$ 96.99% (7) = (6) * 0.9699	(8) = (7) - (4)
Prior E & I Factor Adjustments								\$ (6,713,206)
(a) Sep-24	\$ 1,854,429	42,190	\$ 185,637	\$ 1,618,562	461,364	\$ 2,030,000	\$ 1,968,897	\$ 350,335
(a) Oct-24	\$ 1,978,075	41,136	\$ 180,997	\$ 1,742,986	434,072	\$ 1,909,916	\$ 1,852,428	\$ 109,442
(a) Nov-24	\$ 1,742,666	36,027	\$ 158,519	\$ 1,536,464	414,279	\$ 1,822,826	\$ 1,767,959	\$ 231,495
(e) Dec-24	\$ 1,878,111	40,242	\$ 177,066	\$ 1,649,843	420,012	\$ 1,848,051	\$ 1,792,425	\$ 142,581
(e) Jan-25	\$ 1,896,892	40,645	\$ 178,837	\$ 1,666,341	420,012	\$ 1,848,051	\$ 1,792,425	\$ 126,083
(e) Feb-25	\$ 1,802,047	38,612	\$ 169,895	\$ 1,583,025	420,012	\$ 1,848,051	\$ 1,792,425	\$ 209,400
(e) Mar-25	\$ 1,892,150	40,543	\$ 178,390	\$ 1,662,175	420,012	\$ 1,848,051	\$ 1,792,425	\$ 130,249
(e) Apr-25	\$ 1,911,071	40,949	\$ 180,174	\$ 1,678,797	420,012	\$ 1,848,051	\$ 1,792,425	\$ 113,628
(e) May-25	\$ 1,930,182	41,358	\$ 181,975	\$ 1,695,586	420,012	\$ 1,848,051	\$ 1,792,425	\$ 96,839
(e) Jun-25	\$ 1,852,975	39,704	\$ 174,696	\$ 1,627,762	420,012	\$ 1,848,051	\$ 1,792,425	\$ 164,662
(e) Jul-25	\$ 1,927,094	41,292	\$ 181,684	\$ 1,692,873	420,012	\$ 1,848,051	\$ 1,792,425	\$ 99,552
(e) Aug-25	\$ 1,946,365	41,705	\$ 183,501	\$ 1,709,801	420,012	\$ 1,848,051	\$ 1,792,425	\$ 82,623
Total	\$ 22,612,056	484,402	\$ 2,131,371	\$ 19,864,216	5,089,819	\$ 22,395,201	\$ 21,721,105	\$ (4,856,316)
Adjustment for Prior Estimates								\$ (501,691)

From Table 3-WW-A

Notes:

- (a) - Actuals
- (e) - Estimated
- (1) - TAP Actual Discounts reflects water's 58.0% allocated portion of the Total TAP Discount.
- (2) - Estimated TAP Discount per participant and estimated billed sales volume per participant reflect projections developed by Rafelis. Refer to RFC-3.
- (3) & (6) - Sewer TAP-R Rates per PWD Regulations - Rates and Charges Effective September 1, 2024 Section 10.3(b)(1).
- (4) & (7) - Adjusted for system-wide collection factor in accordance with PWD Regulations - Rates and Charges Effective September 1, 2024 Section 10.1(b)(3).
- (5) - Estimated Non-TAP water sales volumes for December 2024 through August 2025 are based upon average sales for prior 12 month period.
- (8) - Over/(Under) Collection is based upon Rates that are inclusive of Prior E-Factor and I-Factor. The presented "Prior E & I Factor Adjustments" includes these amounts from 2024 Annual Rate Adjustment.

Total E-Factor Recovery \$ (5,358,007)

Line 2 in Summary Table

Philadelphia Water Department										Original Estimates	
Table 3-W-A - Prior Reconciliation Adjustment - Experienced & Estimated Net Over/(Under) Collection (E-Factor) for Most Recent Period										Adjustment	
Prior Reconciliation Period with Updated Actuals										Over/(Under) Collection	Delta
Billing Period	Total Actual TAP Discounts (Credits)	Billed TAP Water Sales (Mcf)	Total TAP-R Billed to TAP Participants \$ 0.150	Adjusted Actual TAP Discounts (Credits) 96.99%	Billed Non-TAP Water Sales (Mcf)	TAP-R Billed Non-Tap Water Sales	Estimated TAP-R Revenues Experienced 96.99%	Over/(Under) Collection			
	(1)	(2)	(3) = (2) * \$ 0.150/Mcf	(4) = [(1) - (3)] * 0.9699	(5)	(6) = (5) * \$ 0.150/Mcf	(7) = (6) * 0.9699	(8) = (7) - (4)		(9)	(10) = (8) - (9)
Prior E & I Factor Adjustments								\$ 3,134,517		\$ 3,134,517	
Sep-23	\$ 519,366	15,848	\$ 2,377	\$ 501,427	523,650	\$ 78,548	\$ 76,183	\$ (425,244)	\$ (425,244)	\$ (0)	
Oct-23	\$ 501,703	14,421	\$ 2,163	\$ 484,504	441,095	\$ 66,164	\$ 64,173	\$ (420,331)	\$ (420,331)	\$ 0	
Nov-23	\$ 532,517	15,244	\$ 2,287	\$ 514,270	443,823	\$ 66,573	\$ 64,570	\$ (449,700)	\$ (449,701)	\$ 0	
Dec-23	\$ 540,734	15,420	\$ 2,313	\$ 522,214	442,897	\$ 66,435	\$ 64,435	\$ (457,779)	\$ (457,779)	\$ (0)	
Jan-24	\$ 561,600	16,008	\$ 2,401	\$ 542,367	454,930	\$ 68,239	\$ 66,185	\$ (476,182)	\$ (476,182)	\$ 0	
Feb-24	\$ 640,224	19,370	\$ 2,905	\$ 618,135	436,223	\$ 65,433	\$ 63,464	\$ (554,671)	\$ (554,672)	\$ 0	
Mar-24	\$ 848,599	30,047	\$ 4,507	\$ 818,685	404,940	\$ 60,741	\$ 58,913	\$ (759,772)	\$ (759,772)	\$ (0)	
Apr-24	\$ 879,554	32,616	\$ 4,892	\$ 848,335	394,963	\$ 59,244	\$ 57,461	\$ (790,874)	\$ (841,464)	\$ 50,591	
May-24	\$ 995,012	36,430	\$ 5,465	\$ 959,761	438,784	\$ 65,818	\$ 63,836	\$ (895,925)	\$ (841,464)	\$ (54,460)	
Jun-24	\$ 987,712	35,199	\$ 5,280	\$ 952,860	436,439	\$ 65,466	\$ 63,495	\$ (889,365)	\$ (841,464)	\$ (47,901)	
Jul-24	\$ 1,066,881	37,901	\$ 5,685	\$ 1,029,254	495,114	\$ 74,267	\$ 72,032	\$ (957,222)	\$ (841,464)	\$ (115,758)	
Aug-24	\$ 1,149,072	40,151	\$ 6,023	\$ 1,108,643	507,271	\$ 76,091	\$ 73,800	\$ (1,034,843)	\$ (841,464)	\$ (193,378)	
Total	\$ 9,222,971	308,654	\$ 46,298	\$ 8,900,455	5,420,129	\$ 813,019	\$ 788,547	\$ (4,977,391)	\$ (4,616,485)	\$ (360,906)	
Total								\$ (4,977,391)	\$ (4,616,485)	\$ (360,906)	Adjustment for Prior Estimates Included in Table 3-W

Notes:

- (1) - TAP Actual Discounts reflect water's 42.0% allocated portion of the Total TAP Discount.
- (2) - Updated TAP Discounts and billed sales volume to reflect actuals for April 2024 through August 2024 as provided by Rafetels. Refer to Schedule RFC-3.
- (3) & (6) - Water TAP-R Rates per PWD Regulations - Rates and Charges Effective September 1, 2023 Section 10.3(a)(1).
- (4) & (7) - Adjusted for system-wide collection factor in accordance with PWD Regulations - Rates and Charges Effective September 1, 2023 Section 10.1(b)(3).
- (5) - Billed Non-TAP Water Sales, updated to reflect actual billed water sales volumes for April 2024 through August 2024.
- (8) - Updated Over/(Under) Collection
- (9) - Over/(Under) Collection for September 2023 to August 2024 as calculated during the prior TAP-R Reconciliation Determination.
- (10) - Difference between Updated Over/(Under) Collection and Original Estimates.

Philadelphia Water Department										Original Estimates	
Table 3-WW-A - Prior Reconciliation Adjustment - Experienced & Estimated Net Over/(Under) Collection (E-Factor) for Most Recent Period										Adjustment	
Prior Reconciliation Period with Updated Actuals										Over/(Under) Collection	Delta
Billing Period	Total Actual TAP Discounts (Credits)	Billed Sewer Volume TAP Participants (Mcf)	Total TAP-R Billed to TAP Participants \$ 0.240	Adjusted Actual TAP Discounts (Credits) 96.99%	Billed Non-TAP Sewer Volume (Mcf)	TAP-R Billed Non-Tap Water Sales \$ 0.240	Estimated TAP-R Revenues Experienced 96.99%	Over/(Under) Collection			
	(1)	(2)	(3) = (2) * \$ 0.240/Mcf	(4) = [(1) - (3)] * 0.9699	(5)	(6) = (5) * \$ 0.240/Mcf	(7) = (6) * 0.9699	(8) = (7) - (4)		(9)	(10) = (8) - (9)
Prior E & I Factor Adjustments								\$ 4,689,002		\$ 4,689,002	
Sep-23	\$ 717,219	15,844	\$ 3,802	\$ 691,943	492,841	\$ 118,282	\$ 114,722	\$ (577,221)	\$ (577,222)	\$ 0	
Oct-23	\$ 692,828	14,414	\$ 3,459	\$ 668,618	420,550	\$ 100,932	\$ 97,894	\$ (570,724)	\$ (570,725)	\$ 0	
Nov-23	\$ 735,380	15,239	\$ 3,657	\$ 709,698	422,652	\$ 101,437	\$ 98,384	\$ (611,314)	\$ (611,315)	\$ 0	
Dec-23	\$ 746,727	15,415	\$ 3,700	\$ 720,663	423,419	\$ 101,621	\$ 98,562	\$ (622,100)	\$ (622,100)	\$ (0)	
Jan-24	\$ 775,543	16,003	\$ 3,841	\$ 748,474	423,003	\$ 101,521	\$ 98,465	\$ (650,009)	\$ (650,008)	\$ (0)	
Feb-24	\$ 884,118	19,362	\$ 4,647	\$ 852,999	417,931	\$ 100,303	\$ 97,284	\$ (755,715)	\$ (755,715)	\$ (0)	
Mar-24	\$ 1,171,875	30,027	\$ 7,207	\$ 1,129,612	385,257	\$ 92,462	\$ 89,679	\$ (1,039,933)	\$ (1,039,932)	\$ (0)	
Apr-24	\$ 1,214,623	32,587	\$ 7,821	\$ 1,170,477	374,616	\$ 89,908	\$ 87,202	\$ (1,083,275)	\$ (1,152,032)	\$ 68,757	
May-24	\$ 1,374,064	36,400	\$ 8,736	\$ 1,324,231	413,472	\$ 99,233	\$ 96,246	\$ (1,227,985)	\$ (1,152,032)	\$ (75,953)	
Jun-24	\$ 1,363,983	35,166	\$ 8,440	\$ 1,314,741	410,489	\$ 98,517	\$ 95,552	\$ (1,219,189)	\$ (1,152,032)	\$ (67,157)	
Jul-24	\$ 1,473,312	37,859	\$ 9,086	\$ 1,420,153	464,443	\$ 111,466	\$ 108,111	\$ (1,312,042)	\$ (1,152,032)	\$ (160,010)	
Aug-24	\$ 1,586,813	40,109	\$ 9,626	\$ 1,529,714	474,078	\$ 113,779	\$ 110,354	\$ (1,419,359)	\$ (1,152,032)	\$ (267,327)	
Total	\$ 12,736,484	308,426	\$ 74,022	\$ 12,281,322	5,122,752	\$ 1,229,461	\$ 1,192,454	\$ (6,399,866)	\$ (5,898,175)	\$ (501,691)	
Total								\$ (6,399,866)	\$ (5,898,175)	\$ (501,691)	Adjustment for Prior Estimates Included in Table 3-WW

Notes:

- (1) - TAP Actual Discounts reflects sewer's 58.0% allocated portion of the Total TAP Discount.
- (2) - Updated TAP Discounts and billed sales volume to reflect actuals for April 2024 through August 2024 as provided by Rafetels. Refer to Schedule RFC-3.
- (3) & (6) - Sewer TAP-R Rates per PWD Regulations - Rates and Charges Effective PWD Regulations - Rates and Charges Effective September 1, 2023 Section 10.3(b)(1).
- (4) & (7) - Adjusted for system-wide collection factor in accordance with PWD Regulations - Rates and Charges Effective September 1, 2023 Section 10.1(b)(3).
- (5) - Updated to reflect actual billed water sales volumes for April 2024 through August 2024.
- (8) - Updated Over/(Under) Collection
- (9) - Over/(Under) Collection for September 2023 to August 2024 as calculated during the prior TAP-R Reconciliation Determination.
- (10) - Difference between Updated Over/(Under) Collection and Original Estimates.

Philadelphia Water Department
Table 4 - W - Interest on Experienced & Estimated Net Over/(Under) Collection (I-Factor) for Most Recent Period

Billing Period	Difference in Collection Water Portion From Table 3-W (1)	Billed Non-TAP Water Sales (Mcf) From Table 3-W (2)	Anticipated E+I Recovery Water Portion \$ (0.969) (3) = (2) * \$ -0.969/Mcf	Remaining E+I Recovery Water Portion (4) = (3) + (1)	Cumulative Over/(Under) Collection Relative to Revenue Requirements Water Portion (5)	Estimated Monthly Interest Owed/ (Interest to be Recouped) Water Portion (6) = (5) * [4.17% / 12]
Sep-24	\$ 291,252	491,267	\$ (476,247)	\$ (184,995)	\$ (184,995)	\$ (642.86)
Oct-24	\$ 112,579	461,578	\$ (447,465)	\$ (334,886)	\$ (519,881)	\$ (1,806.59)
Nov-24	\$ 191,736	437,840	\$ (424,454)	\$ (232,718)	\$ (752,599)	\$ (2,615.28)
Dec-24	\$ 131,884	445,468	\$ (431,848)	\$ (299,965)	\$ (1,052,564)	\$ (3,657.66)
Jan-25	\$ 119,896	445,468	\$ (431,848)	\$ (311,953)	\$ (1,364,517)	\$ (4,741.70)
Feb-25	\$ 180,437	445,468	\$ (431,848)	\$ (251,411)	\$ (1,615,928)	\$ (5,615.35)
Mar-25	\$ 122,923	445,468	\$ (431,848)	\$ (308,926)	\$ (1,924,853)	\$ (6,688.87)
Apr-25	\$ 110,844	445,468	\$ (431,848)	\$ (321,005)	\$ (2,245,858)	\$ (7,804.36)
May-25	\$ 98,646	445,468	\$ (431,848)	\$ (333,203)	\$ (2,579,061)	\$ (8,962.24)
Jun-25	\$ 147,929	445,468	\$ (431,848)	\$ (283,920)	\$ (2,862,980)	\$ (9,948.86)
Jul-25	\$ 100,617	445,468	\$ (431,848)	\$ (331,232)	\$ (3,194,212)	\$ (11,099.89)
Aug-25	\$ 88,316	445,468	\$ (431,848)	\$ (343,533)	\$ (3,537,744)	\$ (12,293.66)
Total						\$ (75,877)

Adjustment for Prior Estimates \$ (2,134)

Total I-Factor Recovery \$ **(78,011)**

Line 3 in Summary Table

Notes:

- (1) Difference in collection from Total of Column 8 - Table 3-W.
- (2) Billed Water Sales Volume from Column 5 - Table 3-W.
- (3) Anticipated Water Portion of E+I Recovery based upon the rate component of the 2024 TAP-R Determination.
- (4) Remaining E+I to be recovered.
- (6) Interest calculated monthly based on 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 02, 2025.

Philadelphia Water Department
Table 4 - WW - Interest on Experienced & Estimated Net Over/(Under) Collection (I-Factor) for Most Recent Period

Billing Period	Difference in Collection Sewer Portion From Table 3-WW (1)	Billed Non-TAP Sewer Volume (Mcf) From Table 3-WW (2)	Anticipated E+I Recovery Sewer Portion \$ (1.324) (3) = (2) * \$ -1.324/Mcf	Remaining E+I Recovery Sewer Portion (4) = (3) + (1)	Cumulative Over/(Under) Collection Relative to Revenue Requirements Sewer Portion (5)	Estimated Monthly Interest Owed/ (Interest to be Recouped) Sewer Portion (6) = (5) * [4.17% / 12]
Sep-24	\$ 350,335	461,364	\$ (610,772)	\$ (260,437)	\$ (260,437)	\$ (905.02)
Oct-24	\$ 109,442	434,072	\$ (574,642)	\$ (465,200)	\$ (725,637)	\$ (2,521.59)
Nov-24	\$ 231,495	414,279	\$ (548,439)	\$ (316,944)	\$ (1,042,581)	\$ (3,622.97)
Dec-24	\$ 142,581	420,012	\$ (556,029)	\$ (413,447)	\$ (1,456,029)	\$ (5,059.70)
Jan-25	\$ 126,083	420,012	\$ (556,029)	\$ (429,945)	\$ (1,885,974)	\$ (6,553.76)
Feb-25	\$ 209,400	420,012	\$ (556,029)	\$ (346,628)	\$ (2,232,602)	\$ (7,758.29)
Mar-25	\$ 130,249	420,012	\$ (556,029)	\$ (425,779)	\$ (2,658,382)	\$ (9,237.88)
Apr-25	\$ 113,628	420,012	\$ (556,029)	\$ (442,401)	\$ (3,100,783)	\$ (10,775.22)
May-25	\$ 96,839	420,012	\$ (556,029)	\$ (459,190)	\$ (3,559,972)	\$ (12,370.90)
Jun-25	\$ 164,662	420,012	\$ (556,029)	\$ (391,366)	\$ (3,951,339)	\$ (13,730.90)
Jul-25	\$ 99,552	420,012	\$ (556,029)	\$ (456,477)	\$ (4,407,815)	\$ (15,317.16)
Aug-25	\$ 82,623	420,012	\$ (556,029)	\$ (473,405)	\$ (4,881,220)	\$ (16,962.24)
Total						\$ (104,816)

Adjustment for Prior Estimates \$ (2,995)

Total I-Factor Recovery \$ **(107,811)**

Line 3 in Summary Table

Notes:

- (1) Difference in collection from Total of Column 8 - Table 3-WW.
- (2) Billed Water Sales Volume from Column 5 - Table 3-WW.
- (3) Anticipated Sewer Portion of E+I Recovery based upon the rate component of the 2024 TAP-R Determination.
- (4) Remaining E+I to be recovered.
- (6) Interest calculated monthly based on 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 02, 2025.

Philadelphia Water Department					
Table 4 -W-A - Interest on Experienced & Estimated Net Over/(Under) Collection (I-Factor) for Most Recent Period					
Billing Period	Prior Reconciliation Period with Updated Actuals			Original Estimates	Adjustment
	Difference in Collection Water Portion From Table 3-W-A (1)	Cumulative Over/(Under) Collection Water Portion (2)	Estimated Monthly Interest Owed/ (Interest to be Recouped) Water Portion (3) = (2) * [4.80% / 12]	Estimated Monthly Interest Owed/ (Interest to be Recouped) Water Portion (4)	Cumulative Over/(Under) Collection Water Portion (5) = (3) - (4)
Sep-23	\$ (425,244)	\$ (425,244)	\$ (1,700.98)	\$ (1,700.97)	\$ (0.00)
Oct-23	\$ (420,331)	\$ (845,575)	\$ (3,382.30)	\$ (3,382.30)	\$ (0.00)
Nov-23	\$ (449,700)	\$ (1,295,275)	\$ (5,181.10)	\$ (5,181.10)	\$ 0.00
Dec-23	\$ (457,779)	\$ (1,753,055)	\$ (7,012.22)	\$ (7,012.22)	\$ (0.00)
Jan-24	\$ (476,182)	\$ (2,229,236)	\$ (8,916.94)	\$ (8,916.95)	\$ 0.00
Feb-24	\$ (554,671)	\$ (2,783,907)	\$ (11,135.63)	\$ (11,135.63)	\$ 0.00
Mar-24	\$ (759,772)	\$ (3,543,680)	\$ (14,174.72)	\$ (14,174.72)	\$ 0.00
Apr-24	\$ (790,874)	\$ (4,334,553)	\$ (17,338.21)	\$ (17,540.58)	\$ 202.37
May-24	\$ (895,925)	\$ (5,230,478)	\$ (20,921.91)	\$ (20,906.44)	\$ (15.48)
Jun-24	\$ (889,365)	\$ (6,119,843)	\$ (24,479.37)	\$ (24,272.29)	\$ (207.08)
Jul-24	\$ (957,222)	\$ (7,077,065)	\$ (28,308.26)	\$ (27,638.15)	\$ (670.11)
Aug-24	\$ (1,034,843)	\$ (8,111,908)	\$ (32,447.63)	\$ (31,004.01)	\$ (1,443.62)
Total		\$	\$ (174,999)	\$ (172,865)	\$ (2,134)
			Total	\$ (172,865)	\$ (2,134) Adjustment for Prior Estimates

Included in Table 4-W

Notes:

- (1) Difference in collection from Total of Column 8 - Table 3-W-A.
- (3) Interest calculated monthly based on 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 02, 2024.
- (4) Difference in collection from Total of Column 8 - Table 3-W (Prior Reconciliation).

Philadelphia Water Department					
Table 4 -WW-A - Interest on Experienced & Estimated Net Over/(Under) Collection (I-Factor) for Most Recent Period					
Billing Period	Prior Reconciliation Period with Updated Actuals			Original Estimates	Adjustment
	Difference in Collection Sewer Portion From Table 3-WW-A (1)	Cumulative Over/(Under) Collection Sewer Portion (2)	Estimated Monthly Interest Owed/ (Interest to be Recouped) Sewer Portion (3) = (2) * [4.80% / 12]	Estimated Monthly Interest Owed/ (Interest to be Recouped) Sewer Portion (4)	Delta Prior Period Estimates (5) = (3) - (4)
Sep-23	\$ (577,221)	\$ (577,221)	\$ (2,308.89)	\$ (2,308.89)	\$ 0.00
Oct-23	\$ (570,724)	\$ (1,147,946)	\$ (4,591.78)	\$ (4,591.79)	\$ 0.00
Nov-23	\$ (611,314)	\$ (1,759,260)	\$ (7,037.04)	\$ (7,037.04)	\$ 0.00
Dec-23	\$ (622,100)	\$ (2,381,360)	\$ (9,525.44)	\$ (9,525.44)	\$ 0.00
Jan-24	\$ (650,009)	\$ (3,031,369)	\$ (12,125.48)	\$ (12,125.48)	\$ 0.00
Feb-24	\$ (755,715)	\$ (3,787,084)	\$ (15,148.34)	\$ (15,148.34)	\$ 0.00
Mar-24	\$ (1,039,933)	\$ (4,827,017)	\$ (19,308.07)	\$ (19,308.07)	\$ 0.00
Apr-24	\$ (1,083,275)	\$ (5,910,292)	\$ (23,641.17)	\$ (23,916.20)	\$ 275.03
May-24	\$ (1,227,985)	\$ (7,138,277)	\$ (28,553.11)	\$ (28,524.32)	\$ (28.78)
Jun-24	\$ (1,219,189)	\$ (8,357,466)	\$ (33,429.87)	\$ (33,132.45)	\$ (297.41)
Jul-24	\$ (1,312,042)	\$ (9,669,508)	\$ (38,678.03)	\$ (37,740.58)	\$ (937.45)
Aug-24	\$ (1,419,359)	\$ (11,088,868)	\$ (44,355.47)	\$ (42,348.71)	\$ (2,006.76)
Total		\$	\$ (238,703)	\$ (235,707)	\$ (2,995)
			Total	\$ (235,707)	\$ (2,995) Adjustment for Prior Estimates

Included in Table 4-WW

Notes:

- (1) Difference in collection from Total of Column 8 - Table 3-WW-A.
- (3) Interest calculated monthly based on 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 02, 2024.
- (4) Difference in collection from Total of Column 8 - Table 3-WW (Prior Reconciliation).

Table 5 - Application of TAP Rate Rider Adjustment Effective September 1, 2025				
		Base	TAP-R Surcharge	Total
	Rates	Proposed	Proposed	Total
	Water Quantity Charges	(\$/Mcf)	(\$/Mcf)	(\$/Mcf)
1	0 to 2 Mcf	\$ 72.45	\$ 3.87	\$ 76.32
2	2.1 to 100 Mcf	\$ 64.76	\$ 3.87	\$ 68.63
3	100.1 to 2,000 Mcf	\$ 50.16	\$ 3.87	\$ 54.03
4	2,000 + Mcf	\$ 50.16	\$ 3.87	\$ 54.03
	Sewer Quantity Charges	(\$/Mcf)	(\$/Mcf)	(\$/Mcf)
5	Sewer Volume Rate	\$ 47.39	\$ 5.67	\$ 53.06

Notes:

Proposed Base Rates reflect the quantity charges, per the FY 2026 and FY 2027 Rate Proceeding.

TAP-R Rates are proposed to be effective on September 01, 2025.

The final quantity charges (including the TAP-R surcharge) will be in the final PWD Rates and Charges, if approved.

**TABLE C-4
 COMBINED SYSTEM: COMPARISON OF TYPICAL
 BILL FOR RESIDENTIAL CUSTOMERS
 UNDER EXISTING AND PROPOSED RATES**

(1) Meter Size Inches	(2) Monthly Use Mcf	(3)	(4)	(5)	(5)	(5)
		FY 2025 Existing Rates \$	FY 2026 Proposed Rates \$	% Proposed of Existing %	FY 2027 Proposed Rates \$	% Proposed of FY 2026 %
5/8	0.00	33.22	35.67	7.4	38.64	8.3
5/8	0.20	55.80	61.54	10.3	65.64	6.7
5/8	0.30	67.09	74.49	11.0	79.14	6.2
5/8	0.40	78.38	87.42	11.5	92.63	6.0
5/8	0.43	81.77	91.31	11.7	96.68	5.9
5/8	0.50	89.68	100.36	11.9	106.14	5.8
5/8	0.60	100.97	113.30	12.2	119.64	5.6
5/8	0.70	112.26	126.23	12.4	133.13	5.5
5/8	0.80	123.55	139.18	12.7	146.63	5.3
5/8	1.70	225.17	255.61	13.5	268.12	4.9
5/8	2.70	333.57	379.61	13.8	399.96	5.4
5/8	3.30	397.45	452.63	13.9	478.25	5.7

Typical Senior

Typical Residential

Notes:

FY 2025 figures reflect the existing base and current TAP-R rates, of \$3.08/Mcf for water and \$4.40/Mcf for sewer.
 FY 2026 and FY 2027 figures reflect the proposed base and TAP-R rates, of \$3.87/Mcf for water and \$5.67/Mcf for sewer.
 The FY 2026 TAP-R rates are subject to the Rate Board's Determination in the 2025 TAP-R Reconciliation Proceeding.
 The TAP-R Rates are subject to annual reconciliation.

Typical Senior Citizen is presented prior to discount. Eligible Senior Citizen's receive a 25% discount on their total bill. The associated FY 2025, FY 2026, and FY 2027 bills would be \$50.32, \$55.87, and \$59.35, respectively.

Mcf - Thousand cubic feet

**TABLE C-5
 COMBINED SYSTEM: COMPARISON OF EXAMPLE BILLS
 FOR NON-RESIDENTIAL CUSTOMERS
 UNDER EXISTING AND PROPOSED RATES**

(1) Meter Size	(2) Monthly Use Mcf	(3) Impervious Area sf	(4) Gross Area sf	(5)		(6)		(7)		(8)		(9)	
				FY 2025		FY 2026		FY 2027		FY 2026		FY 2027	
				Existing Rates	Proposed Rates	% Proposed of Existing	Proposed Rates	% Proposed of Existing	Proposed Rates	% Proposed of Existing	Proposed Rates	% Proposed of Existing	% Proposed of FY 2026
Inches				\$	\$	%	\$	%	\$	%	\$	%	%
5/8	0.0	1,794	2,110	44.88	47.69	6.3	51.85	8.7					
5/8	0.2	1,794	2,110	67.46	73.56	9.0	78.85	7.2					
5/8	0.3	1,794	2,110	78.75	86.51	9.9	92.35	6.8					
5/8	0.4	1,794	2,110	90.04	99.44	10.4	105.84	6.4					
5/8	0.5	4,000	5,500	131.74	144.02	9.3	154.18	7.1					
5/8	0.55	4,000	5,500	137.38	150.49	9.5	160.92	6.9					
5/8	0.6	4,000	5,500	143.03	156.96	9.7	167.68	6.8					
5/8	0.7	4,000	5,500	154.32	169.89	10.1	181.17	6.6					
5/8	0.8	26,000	38,000	499.24	529.97	6.2	576.78	8.8					
5/8	1.7	26,000	38,000	600.86	646.40	7.6	698.27	8.0					
5/8	2.7	4,000	5,500	375.63	423.27	12.7	448.00	5.8					
5/8	3.3	4,000	5,500	439.51	496.29	12.9	526.29	6.0					
5/8	11.0	7,000	11,000	1,306.67	1,482.62	13.5	1,585.27	6.9					
1	1.7	7,700	7,900	330.83	366.65	10.8	390.11	6.4					
1	5.0	22,500	24,000	894.65	989.28	10.6	1,062.83	7.4					
1	8.0	7,700	7,900	1,003.52	1,135.61	13.2	1,213.49	6.9					
1	17.0	22,500	24,000	2,172.29	2,449.56	12.8	2,628.59	7.3					
2	7.6	1,063	1,250	900.28	1,029.25	14.3	1,096.92	6.6					
2	16.0	22,500	24,000	2,098.39	2,366.99	12.8	2,540.29	7.3					
2	33.0	66,500	80,000	4,560.12	5,113.28	12.1	5,504.29	7.6					
2	100.0	7,700	7,900	10,831.33	12,370.21	14.2	13,259.83	7.2					
4	30.0	7,700	7,900	3,488.50	3,982.58	14.2	4,266.82	7.1					
4	170.0	10,500	12,000	17,519.94	20,037.20	14.4	21,506.37	7.3					
4	330.0	26,000	38,000	32,709.14	37,421.92	14.4	40,209.12	7.4					
4	500.0	140,000	160,000	50,241.02	57,339.91	14.1	61,673.27	7.6					
6	150.0	10,500	12,000	15,808.18	18,082.34	14.4	19,404.26	7.3					
6	500.0	41,750	45,500	48,963.90	56,036.69	14.4	60,234.26	7.5					
6	1,000.0	26,000	38,000	95,464.08	109,359.16	14.6	117,574.31	7.5					
6	1,500.0	140,000	160,000	143,827.86	164,616.85	14.5	177,044.56	7.5					
8	750.0	10,500	12,000	72,049.93	82,556.02	14.6	88,742.96	7.5					
8	1,500.0	66,500	80,000	142,946.27	163,729.80	14.5	176,063.03	7.5					
8	2,000.0	26,000	38,000	189,077.83	216,668.84	14.6	232,981.01	7.5					
8	3,000.0	140,000	160,000	282,936.61	325,471.53	15.0	350,036.26	7.5					
10	600.0	22,500	24,000	58,433.04	66,939.14	14.6	71,952.46	7.5					
10	1,700.0	41,750	45,500	161,489.16	185,032.27	14.6	198,963.23	7.5					
10	3,300.0	26,000	38,000	309,176.34	356,153.74	15.2	382,990.28	7.5					
10	6,000.0	140,000	160,000	559,792.12	647,009.43	15.6	695,834.53	7.5					

Typical Small Business

(a) Examples with gross area less than 5,000 square feet reflect an impervious area of 85% of the gross area consistent with PWD Regulations section 304.3.
 (b) The FY 2025 figures reflect the existing base and current TAP-R rates, of \$3.08/Mcf for water and \$4.40/Mcf for sewer.
 (c) FY 2026 and FY 2027 figures reflect the proposed base and TAP-R rates, of \$3.87/Mcf for water and \$5.67/Mcf for sewer.
 (d) The FY 2026 TAP-R rates are subject to the Rate Board's Determination in the 2025 TAP-R Reconciliation Proceeding.
 The TAP-R Rates are subject to annual reconciliation.

Mcf - Thousand cubic feet
 sf - square feet

To: Philadelphia Water Department	From: Black & Veatch Management Consulting, LLC
Task Name: TAP Rider Reconciliation	Schedule: BV-3
Document: TAP-R Reconciliation Assumptions	Date: February 18, 2025

This document summarizes the assumptions used in developing the Tiered Assistance Program (TAP) Rate Rider reconciliation calculations for September 1, 2025 to August 31, 2026 (the Next Rate Period), as it relates to the Philadelphia Water Department’s (PWD) TAP-R surcharge rates. These assumptions are based upon currently available data.

Definitions

Per Section 10 of *PWD Rates and Charges Effective September 1, 2024*, the following list of terms is used in this assumptions document:

- **C** – (or C-Factor) The cost in dollars of the estimated TAP Billing Loss for the Next Rate Period.
- **E** – (or E-Factor) The net over or under-collection of the TAP-R surcharge amount for the Most Recent Period.
- **I** – (or I-Factor) Interest on any over or under-collection of the TAP-R for the Most Recent Period.
- **S** – (or S-Factor) Projected sales in thousand cubic feet (MCF) for Non-TAP customers.
- **Most Recent Period** – The Current Fiscal Year and/or the period for which TAP-R reconciliation is performed. For this reconciliation filing, the Most Recent Period is September 1, 2024 to August 31, 2025.
- **Next Rate Period** – The fiscal year and/or the period that immediately follows the Most Recent Period, and in which the proposed TAP-R is effective. Also referred to as the Projected Period. For this reconciliation filing, the Next Rate Period comprises September 1, 2025 to August 31, 2026.
- **TAP Participants** – The number of unique customers issued a TAP bill during the period in question.
- **TAP-R** – The TAP Rider water and sewer surcharge rates.

Current TAP-R Rates

The current TAP-R rates, as stated in Section 10 of *PWD Rates and Charges Effective September 1, 2024*, were utilized in the TAP-R reconciliation calculations for the Most Recent Period:

- **Water TAP-R:** \$3.08 per MCF
- **Sewer TAP-R:** \$4.40 per MCF

Codified Factors

The following codified factors, as stated in Section 10 of *PWD Regulations Rates and Charges Effective September 1, 2024*, were utilized in the TAP-R reconciliation calculations:

- **Allocation of TAP Discounts (i.e., Lost Billings):**
 - The costs of TAP discounts for the Most Recent Period and the Next Rate Period proportioned to water and sewer, based on the following allocation percentages:
 - Water Tap Cost Allocation: 42%

- Sewer Tap Cost Allocation: 58%
- **Collection Factor:**
 - TAP Revenue Loss and TAP-R billings for the Most Recent Period adjusted for collections based upon the following:
 - Collection Factor: 96.99%
- **Interest Rate:**
 - Interest on under/over-collection (i.e., I-Factor) uses the 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 2, 2025.
 - Interest Rate: 4.17%
 - Appendix A provides a snapshot of the current interest rate, as noted above.

TAP Assumptions

Schedules RFC-1 and 3 detail the actual TAP reporting data and TAP projections.

Most Recent Period

For the Most Recent Period, actual data was available for September 2024 through November 2024 and estimates were developed to cover the months of December 2024 through August 2025. The estimates utilized the following approach:

- **TAP Participants** – Projected participants for December 2024 to August 2025 are as provided by Raftelis Financial Consultants (refer to Schedule RFC-1 and 3).
- **TAP Billing Loss** – Estimated based upon the projected number of monthly participants and the average monthly bill discount of \$54.62 per TAP participant.
- **TAP Billed Volumes** – Estimated based upon the projected number of TAP Participants and the average monthly consumption of 679 cubic feet (cf) per TAP Participant.

Note - Estimates for the period of December 2024 through August 2025 will be reconciled as part of the next reconciliation filing.

Next Rate Period

For the Next Rate Period, projections of TAP Participants and TAP Billing Loss were developed for September 2025 through August 2026.

- **TAP Participants** – For reconciliation purposes, the average monthly TAP Participants are projected to be approximately 60,827 based upon projections provided by Raftelis Financial Consultants (refer to Schedule RFC-1 and 3).
- **TAP Billing Loss** – Estimated based upon the projected number of TAP Participants for the Next Rate Period and the average monthly bill discount of \$54.62 per TAP Participant based upon projections provided by Raftelis Financial Consultants (refer to Schedule RFC-1 and 3). Total TAP Billing Loss for the Next Rate Period was assumed to be approximately \$39.87 million.

Note – TAP Billing Loss for the Next Rate Period serves as the basis for the C-Factor in the reconciliation calculations.

Non-TAP Billed Volumes

Actual water and sewer billed volumes for Non-TAP customers are detailed in Schedule RFC-3 for December 2023 through November 2024.

Most Recent Period

For the Most Recent Period, actual data was available for September 2024 through November 2024, including adjustments for discounts. For reconciliation purposes, water and sewer billed volumes for December 2024 through August 2025 were estimated based upon the average monthly sales for prior twelve months. Non-TAP billed volumes are adjusted to account for Non-TAP Discounts related to Senior Citizen, Philadelphia Housing Authority (PHA) and Non-PHA Discount customers¹.

Actual monthly average volumes for December 2023 through November 2024 were as follows:

- **Monthly Billed Water Volume** – 4,454,681 hundred cubic feet (ccf)
- **Monthly Billed Sewer Volume** – 4,200,116 ccf

Monthly billed water and sewer volumes are assumed to remain constant through the remainder of the period.

Note – Billed Volumes are used to estimate revenues from Non-TAP customers in developing the E-Factor in the reconciliation calculations. Estimates for the period of December 2024 through August 2025, will be reconciled as part of the next reconciliation filing.

Next Rate Period

For the Next Rate Period, projections for total Non-TAP water and sewer sales volumes were developed for the period of September 2025 through August 2026.

- Projections for Non-TAP water and sewer sales volume for the Next Rate Period are based upon the actual sales volume for Non-TAP customers from December 2023 to November 2024 (i.e., prior twelve months of actuals¹); and
- Assumes total Non-TAP sales remain constant for the next rate period.

Note – Projected Sales Volumes for Non-TAP customers are the S-Factor in the reconciliation calculations.

¹ In accordance with the Water Department's *Rates and Charges*, Senior Citizens, PHA and Non-PHA Discount customers receive reduced overall bills by applying reductions of 25%, 5% and 25%, respectively. As these discounts directly impact the Water Department's ability to recover TAP discounts, billed volumes are adjusted to account for reduction in TAP-R related revenue that occurs in actual Non-TAP discount customer bills.

APPENDIX A

1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) and downloaded on January 13, 2025

Instruments	2024 Dec 30	2024 Dec 31	2025 Jan 2	2025 Jan 3	2025 Jan
Treasury Constant Maturities (yields in percent per annum)					
1-Year	4.17	4.16	4.17	4.18	4.18

Accessed via: <https://www.federalreserve.gov/releases/h15/>

To: Philadelphia Water Department	From: Black & Veatch Management Consulting, LLC
Task Name: TAP Rider Reconciliation	Schedule: BV-4
Document: TAP Reconciliation Calculation Methodology	Date: February 18, 2025

This document summarizes the methodology used for the Tiered Assistance Program (TAP) Rate Rider reconciliation calculations for September 1, 2025, to August 31, 2026 (the Next Rate Period), as it relates to the Philadelphia Water Department’s (PWD) TAP-R surcharge rates.

Note – Black & Veatch Schedule BV-3 TAP-R Reconciliation Assumptions dated February 1, 2025 (hereinafter referred to as Schedule BV-3) summarizes the assumptions and inputs used in the calculations discussed herein.

TAP-R OVERVIEW

The Water Department implemented TAP, effective July 1, 2017, to assist low-income water customers with their water, sewer, and stormwater utility bills. PWD recovers the costs associated with the TAP from water and sewer customers via Water and Sewer surcharge rates. The Water and Sewer surcharge rates are embedded in the Water and Sewer Quantity charges, respectively.

The TAP-R Surcharge Rate Rider is a revenue true-up mechanism designed to enable PWD to (i) reconcile the actual costs of the TAP incurred in the *Most Recent Period* with the TAP-R surcharge revenues estimated for that period, and (ii) determine the TAP-R for the *Next Rate Period*.

TAP-R consists of two sub-components:

- The “Water TAP-R” which is added to each block rate of the water quantity “base rate,” and
- The “Sewer TAP-R” which is added to the sewer quantity “base rate.”

TAP-R EQUATION AND VARIABLES

Determination of the TAP-R surcharge relies on a mathematical equation defined and approved by the Rate Board, effective September 1, 2024. As stated in *Section 10 of PWD Rates and Charges* (currently in effect), the equation consists of certain variables that require updating during the reconciliation process. Other variables within the equation were established by the Rate Board in a prior General Rate Proceeding and will remain in effect until they are revised under a subsequent Rate Board determination.

The TAP-R Equation

$$TAP-R = \frac{(C) - (E + I)}{S}$$

Figure 1 presents a description of each of the components in the TAP-R equation.

Figure 1 – Description of TAP-R Components

Component	Definition
TAP-R	TAP Rider Surcharge Rate (\$ per MCF).
C	Cost in dollars of the estimated TAP <u>Billing Loss</u> for the <u>Next Rate Period</u> (i.e., discounts provided to TAP participants). Note – the discounts do not include the associated TAP Rate Rider Surcharge Amount.
E	The net over or under collection of the TAP-R surcharge amount for the Most Recent Period. The net over or under collection is calculated by comparing the actual TAP Revenue Loss (resulting from discounts provided to TAP participants) with the actual TAP-R surcharge amounts billed to Non-TAP Customers ¹ . Both the TAP Revenue Loss and the TAP-R billings, determined for the <i>Most Recent Period</i> , are adjusted for collections by applying the Water Department’s system-wide collection factor as identified in the most recent rate proceeding and stated in the Philadelphia Water Department Rates and Charges, Section 10.1(b) (3) for each corresponding rate period. The system-wide collection factor for the FY 2025 rate period (September 1, 2024 to August 2025) identified in the corresponding rate proceeding is 96.99%.
I	Interest on any over or under-recovery (i.e. collection) of the TAP-R for the <i>Most Recent Period</i> . Interest is determined on an annual basis using the yield to maturity 1-year interest rate of United States Treasury Securities with constant maturities as compiled and published in the Federal Reserve Statistical Release H.15 (519), as it exists each year as of the first day of the month, preceding the month of the corresponding annual reconciliation submission to the Rate Board.
S	<u>Projected</u> sales in MCF for <i>Non-TAP</i> customers during the Next Rate Period.

Other Key Terms

Beyond the equation components defined above, the following is a list of key terms used in this document:

- **Most Recent Period** – The Current Fiscal Year and/or the period for which TAP-R reconciliation is performed. For this reconciliation filing, the Most Recent Period comprises September 1, 2024 to August 31, 2025.

¹ The resulting over/under collection is adjusted to account for the prior E & I Factor adjustments reflected in the 2024 TAP-R Rate Adjustment Proceeding and the difference in the estimated amounts of over/under collection for the period of April 2024 to August 2024 as included in the 2024 Annual TAP-R Adjustment and the updated actuals for the same period.

- **Next Rate Period** – The fiscal year and/or the period that immediately follows the Most Recent Period, and in which the proposed TAP-R is effective. Also referred to as the Projected Period. For this reconciliation filing, the Next Rate Period comprises September 1, 2025 to August 31, 2026.
- **TAP Participants** – The number of unique customers that were issued a TAP bill during the period in question.

Calculation Methodology

The following section provides a brief overview of the methodology employed in performing the TAP-R reconciliation calculations as presented in Tables 1 through 5 of Schedule BV-1.

C-Factor

Table 2 of Schedule BV-1 presents the calculation of the C-Factor.

For the Next Rate Period of September 1, 2025 to August 31, 2026, the C-Factor is calculated as follows:

1. The Total Reconcilable TAP costs for the Next Rate Period, as provided by Raftelis Financial Consultants, is estimated by multiplying the monthly Projected Number of TAP Participants (for the Next Rate Period) by the Average Discounts provided per TAP Participant. Refer to Schedule RFC-3 for more details.
2. The water and sewer share of the Total Reconcilable TAP costs is then calculated by applying the respective water and sewer allocation factors.

E-Factor

Tables 3-W and 3-WW of Schedule BV-1 present the calculation of the E-Factor.

For the Most Recent Period of September 1, 2024 to August 31, 2025², the E-Factor is determined based on the following multi-step process:

1. Apportion the reported monthly Total Actual TAP Discounts provided to TAP Participants to water and sewer by applying the respective allocation factors.
2. Determine the monthly Total Amount of TAP-R Billed to TAP Participants³, by multiplying the monthly billed volume by the applicable surcharge rate (i.e., water or sewer TAP-R).
3. Determine the Adjusted⁴ Actual TAP Discounts for the Most Recent Period by:
 - Subtracting the surcharge portion determined in Step 2 above from the reported monthly Total Actual TAP Discounts provided; and
 - Applying the system-wide collection factor of 96.99%.
4. Determine the monthly Non-TAP customers' TAP-R billings by multiplying the monthly sales volumes by the applicable TAP-R rate⁵. For the months of December 2024 to August 2025, sales volumes are

² For the Most Recent Period, actual data was available for September 2024 through November 2024 and estimates were developed to cover the months of December 2024 through August 2025. Estimates used for the period of December 2024 through August 2025 will be reconciled with the next TAP-R Reconciliation filing.

³ Due to billing system constraints, the TAP-R surcharge is included in the TAP participants billings prior to TAP discounts when monthly bills are processed.

⁴ The adjusted Actual TAP Discount takes into account the TAP-R surcharge billed to TAP participants and adjusts for collections.

⁵ As noted in Schedule BV-3, Non-TAP billed volumes are adjusted to account for Non-TAP Discounts related to Senior Citizen, Philadelphia Housing Authority (PHA) and Non-PHA Discount customers, by applying reductions of 25%, 5% and 25%, respectively. As these discounts directly impact the Water Department's ability to recover TAP discounts, billed volumes are adjusted to account for reduction in TAP-R related revenues that occurs in actual Non-TAP discount customer bills.

estimated based upon the average monthly sales for prior 12-month period (December 2023 to November 2024).

5. Determine the estimated amount of TAP-R Revenues from Non-TAP customers by applying the system-wide collection factor of 96.99% to the Non-TAP customers' TAP-R billings determined in Step 4.
6. Determine the net over/under collection of TAP-R as the difference between the TAP-R revenues recovered from Non-TAP customers (Step 5) and Adjusted Actual TAP Discounts (revenue loss) from TAP Participants (Step 3).
7. Adjust the resulting water and sewer over/under collection to account for the prior E & I Factor adjustments reflected in the 2024 TAP-R Rate Adjustment and the difference in the estimated amounts of over/under collection for the period of April 2024 through August 2024 as included in the 2024 TAP-R Rate Adjustment and the updated actuals for the same period.
 - o The process to adjust for the prior E-Factor estimates uses the same methodology outlined in Steps 1-6 and compares the results against the monthly over/under collection as reflected in the FY 2024 TAP-R Reconciliation. These calculations utilize the water and sewer allocation factors (i.e., 42% and 58%) and the system-wide collection factor (i.e., 96.99%) that were adopted and utilized at the time the prior E-Factor TAP-R rates were determined.
 - o The adjustment is derived in Tables 3-W-A and 3-WW-A.

I-Factor

Tables 4-W and 4-WW of the TAP-R Reconciliation Filing present the calculation of the I-Factor. The I-Factor interest on a monthly basis per the methodology utilized in the FY 2024 Rate Adjustment.

For the Most Recent Period of September 1, 2024 to August 31, 2025, the I-Factor is determined as follows:

1. Determine the E+I Factor component for water and sewer by dividing the sum of the prior year reconciliation amounts for E+I adjustments divided by S-Factor (MCF) for each service (as presented in Table 1 of the 2024 TAP-R Adjustment Determination).
2. Determine the anticipated E+I recovery portion for each service by multiplying the monthly water and sewer Billed Non-TAP Volume (Tables 3-W and 3-WW) by the corresponding E+I Factor Component.
3. Determine the remaining E+I Recovery water and sewer portions by adding the difference in collections (Tables 3-W and 3-WW) to the anticipated recovery portion.
4. Calculate the cumulative over/(under) collection relative to the E+I revenue requirements.
5. Multiply the cumulative monthly water and sewer over/(under) recovery of the E+I related revenue requirements, as outlined above, by the identified interest rate of 4.17%⁶ and divide by twelve to calculate the monthly interest.
6. Adjust the resulting water and sewer interest to account for the difference in the estimated amounts of interest for the period of April 2024 through August 2024 as included in the prior reconciliation and the updated actuals for the same period.
 - o The process to adjust for the prior I-Factor estimates uses the same methodology outlined in the 2024 TAP-R Rate Adjustment and compares the results against the actual monthly interest. These calculations utilize the monthly interest rate utilized at the time of the 2024 Annual Rate Adjustment for prior I-Factor determination (i.e., 4.80%).
 - o The adjustment is derived in Tables 3-W-A and 3-WW-A.

⁶ As stated in *Schedule BV -3*, the 1-year interest rate for constant maturity U.S. Treasury Securities as published in the Federal Reserve Statistical Release H.15 (519) on January 2, 2025.

S-Factor

The S-Factor reflects the projected sales volume in thousands of cubic feet (MCF) of the Non-TAP customers for the Next Rate Period and is found on Line 5 of Table 1 of Schedule BV-1.

For the Next Rate Period of September 1, 2025 to August 31, 2026, the S-Factor is determined as follows:

1. Overall Non-TAP Billed Sales Volumes are estimated based upon the actual billed sales volume for Non-TAP customers from December 2023 to November 2024 (i.e., prior twelve months of actuals) and adjusted to account for Non-TAP discounts (refer to Schedule BV-3). The S-Factor is the sum of the projected Non-TAP sales for each month during the Next Rate Period.

TAP-R Rates

Table 1 of Schedule BV-1 summarizes the derivation of the TAP-R surcharge for the Next Rate Period.

For the Next Rate Period of September 1, 2025 to August 31, 2026, the water and sewer TAP-R Surcharge are determined as follows:

1. Using the results of the C-Factor, E-Factor and I-Factor calculations, as outlined above, calculate the total Net Recoverable Costs using the equation: $(C) - (E + I)$ as presented in Line 4 of Table 1.
2. Calculate the TAP-R Surcharge for water and sewer by dividing the Net Recoverable Costs from the previous step by the respective S-Factor (i.e., Projected Non-TAP Sales for the Next Rate Period) in MCF.

Black & Veatch Team Resumes

Ann Bui

Senior Managing Director

Ms. Bui serves as a Senior Managing Director with Black & Veatch's Strategic Advisory & Lifecycle Resiliency Services business and leads the company's Rates and Regulatory practice. Besides providing clients with strategic financial management strategies, her responsibilities include driving growth and innovation to utilities in the areas of financial and advisory planning, climate solutions, resiliency and sustainability issues, and asset integrity.

Ann has more than 30 years of experience with clients in North and South America, Europe, and Asia, gained through more than 525 engagements, providing financial and business planning services for public and investor-owned utilities of all sizes. Currently, she is focused on reducing carbon footprints for energy-intensive activities, water insecurity, addressing affordability and assistance program needs, and developing innovative approaches for structuring alternative delivery projects using private and public financing instruments.

She has prepared financial feasibility reports supporting more than \$16 billion of revenue bond sales, \$8 billion in state revolving fund loans, and over \$1 billion in grant applications.

Ms. Bui has completed due diligence engagements for entities of many internationally well-established companies such as KKR, Macquarie Capital, Credit Suisse, Morgan Stanley, J.P. Morgan, Goldman Sachs, Bank of America Merrill Lynch, Rothschild, Canada Pension Plan Investment Board, Barclays, Fiera Infrastructure, Alma Global, and PGGM. Her work on due diligence efforts has supported water and wastewater infrastructure assets totaling over \$55 billion.

Over the past two decades, Ms. Bui has provided expert witness testimony in front of the California Public Utilities Commission, the Indiana Utilities Regulatory Commission, the Idaho Public Utilities Commission, and the Kentucky Public Service Commission. She has served as an expert witness for utility rate commissions for clients such as the Philadelphia Water Department and Washington Suburban Sanitary Commission. She has also provided expert witness testimony supporting rate litigation matters for the City of San Diego, CA, Greater Cincinnati Water Works, and Atlanta, GA.

An active proponent of advancing the water industry, Ms. Bui is a long-standing member of several industry associations. She is a past Chair of the American Water Works Association (AWWA) Finance, Accounting, and Management Controls Committee. She is involved with AWWA's Rates and

EDUCATION

Masters, Business Administration, Finance, University of California – Davis, 1995

MS, Chemical Engineering, University of California Los Angeles, 1989

BS, Chemical Engineering, University of British Columbia, 1986, Canada

YEARS EXPERIENCE

35

PROFESSIONAL REGISTRATION

License, Engineer-In-Training, #XE094654, California, 1995

PROFESSIONAL ASSOCIATIONS

AWWA

Past Chair - AWWA's Finance, Accounting & Management Controls Committee

Member – AWWA's Rates & Charges

WEF

NACWA's Utility Management Committee

Women in Energy

SPECIALIZATIONS AND SKILLS

Financial & Management Consulting Services; Debt Issuance Support; Elasticity Studies; Cost of Service & Rate Design; Institutional & Organizational Studies; Alternative Financing; Valuations/M&A

Charges Committee, the National Association of Clean Water Agency's Utility Management Committee, the Water Environment Federation (WEF), and Women in Energy.

Ann serves as an author, editor, and peer reviewer for many of the rate-making industry's manuals of practice, including AWWA's M1 – Principles of Water Rates, Fees and Charges, the current update to M1, the current update of WEF's Manual of Practice 27, Financing and Charges for Wastewater Systems, and WEF's User-Fee Funded Stormwater Program. She is the lead author and editor of AWWA's book ***Financial Management for Water Utilities: Principles of Finance, Accounting and Management Controls***.

SELECT PROJECT EXPERIENCE

[Citizen's Energy Group; Water Cost of Service Rate Filing and Asset Valuation; Indiana](#)

Project Director. Black & Veatch has provided financial and rate consulting services to Citizen's Energy Group (CEG) in Indiana for its unregulated water and wastewater businesses for over a decade. Ms. Bui is the Project Director and expert witness leading Black & Veatch's engagement to conduct a fair value analysis and cost-of-service rate filing for CEG's regulated water utility. Commission hearings are scheduled for mid-2024.

[LADWP | Retail Rate Review and Rate Design; CA](#)

Project Director. Oversaw the Black & Veatch portion of a Guidehouse/Black & Veatch engagement with the Los Angeles Department of Water & Power. Reviewed financial and revenue requirement modeling for LADWP's interim rate review and potential full rate action which is cash/financial metric based. In addition, we developed an open access transmission tariff (OATT) cost-of-service and rate design model patterned after FERC Section 35.13 requirements. Validated model inputs to LADWP general ledger, Power Plant System, and financial statements. Finally, Black & Veatch worked with LADWP to develop the rate action report, commercial EV rates, and other retail rate matters.

[Peoples Gas | Cost of Service and Rate Design Services; PA](#)

Project Director. Oversaw the Black & Veatch engagement with Peoples Gas for a Cost of Service and Rate Design Rate study. Developed cost-of-service models for three Peoples Gas entities including special studies for model allocators. Assisted with testimony on cost of service, rate design and a proposed weather normalization adjustment.

[State of New Jersey; Trenton Water Works 360-Degree Review](#)

Project Director. Black & Veatch and its partner API are providing a 360-degree review of the failing Trenton Water Works (TWW) system on behalf of the New Jersey Department of Environmental Protection (DEP) and the state's Infrastructure Bank (iBank). Under this engagement, we are assessing TWW's operational, capital, financial, and governance needs. As part of the review, Black & Veatch is reviewing alternative forms of governance, including privatization, a regional authority, a P3, and other options.

[Veolia Water; Customer Class Load Studies and Cost of Service Rate Case Filings; Idaho, New York, and Delaware](#)

Project Director. Ms. Bui is the Project Director and expert witness supporting Black & Veatch's cost-of-service engagements with Veolia Water. The team developed the cost-of-service and rate design sections for General Rate Case filings in Idaho, New York, and Delaware. A customer class load study

was conducted for each filing to support customer class peaking factors. Black & Veatch is also providing VW with expert witness testimony and post-filing support.

[Aqua North Carolina, Conservation Rate Benefit Analysis & CIP Review; North Carolina](#)

Project Director. Ms. Bui is the Project Director and expert witness supporting Black & Veatch's work with Aqua North Carolina (Company) regarding its Conservation Pilot Program. Aqua initiated a Conservation Pilot Program (CPP) approximately 5 years ago. Under the CPP, four systems facing capacity source water issues were selected, and a tiered water rate design was implemented. As required by the Order under Docket No. W-218, the Company is required to file an analysis of the CPP that includes recommendations for ongoing rates for the CPP service areas to be included with the WSIP annual review process. Under a new engagement, Black & Veatch is currently reviewing and categorizing the Company's CIP for its April 2025 rate filing.

[Philadelphia Water Department \(PWD\); Water, Wastewater and Stormwater Cost of Service Studies; Pennsylvania](#)

Project Director. Ms. Bui has worked with the City of Philadelphia since 2003. Currently, she serves as the Project Director for Black & Veatch's multi-utility cost-of-service work with PWD. The 2018 Rate Case incorporated program costs for PWD's long-term control plan, green infrastructure, public-private grants to incentivize stormwater improvements, and restructuring of the City's assistance programs. The 2018 Rate Case also included the development of a customer assistance rate rider as well as changes in public fire protection cost recovery.

[City of Los Angeles Bureau of Sanitation, CA, Various Wastewater & Stormwater Rate Services](#)

Project Director. Black & Veatch has provided financial and rate consulting services to the City of Los Angeles (City) since the 1970s. Ms. Bui has worked with the City of Los Angeles Bureau of Sanitation (LASAN) in a variety of positions since 2008. Currently, she is the Project Director for Black & Veatch's engagement with LASAN to evaluate rate structure alternatives pertaining to the City's Clean Water Program. This restructuring work involves extensive public outreach and engagement since it has been over a decade since the last cost-of-service study.

Since 2008, Ms. Bui and her team have assisted LASAN with the following services:

- Provided funding strategies to support the City's submittal of three Enhanced Watershed Management Permits (EWMPs). The EWMP outlines a strategy to address watershed activities to comply with MS4 requirements.
- Reviewed stormwater fees and alternative funding sources for the stormwater program. Consideration was given to the need and appropriate basis for stormwater quality-based charges. A financial planning and rate design model was developed for City staff to annually evaluate the financial status of the stormwater program. The model is designed to provide future budget estimates, evaluate alternative revenues, revenue requirements, and the flow of funds analyses, and show the effect of any changes on existing and alternative rate designs.
- Updated LASAN's Sewerage Generation Factors (SGF). The SGF is the basis for sewage facilities charges imposed on new development or renovation of existing facilities. The SGF consists of a volumetric and two strength components. The analysis included research of the existing SGF, a mass balance, field surveys, and benchmarking to similar utilities. In addition, we incorporated the effects of water conservation measures enacted by the City of Los Angeles into the analysis.

- Reconciled LASAN's Contract Agency section service charges. LASAN entered into separate agreements with 29 surrounding agencies to provide wastewater services. The reconciliation required updates of O&M and capital costs, flow and strength characteristics, cost allocations, and facilities charges.

Charleston Water Systems; Comprehensive Financial Planning, Cost of Service Studies, and Asset Valuation; South Carolina

Project Director. Ms. Bui serves as the Project Director supporting Black & Veatch's comprehensive financial services to Charleston Water Systems. We have provided revenue bonds, rate design, and other financial services to the Charleston Water Service for several decades. The comprehensive water and wastewater rate study and rate schedules were recently updated in 2018. In addition, contracts with wholesale customers were reviewed and updated. Current work includes asset valuation for specific parts of the water system that are being considered for purchase by an existing customer.

Greater Cincinnati Water Works (GCWW); Comprehensive Water Rate Study; Cincinnati, Ohio, United States

Project Director. Black & Veatch has been providing consulting services to GCWW since the 1960s. In addition to rate studies, GCWW requested Black & Veatch to assist with strategic business planning, feasibility analysis of district formation, credit card costs, system expansion issues, utilization of family unit classifications, late fees, and payment plan fees. Ms. Bui has worked with the GCWW since 2002 in a variety of roles. She is the Project Director for Black & Veatch's engagement with the City. Since 2002, Black & Veatch has conducted the following studies:

Rate Studies. As part of the comprehensive rate studies, we have addressed alternative rate forms, policy considerations, and the City/County water service contract review. Our financial plans were used extensively in the assessment of scenarios regarding the utility's first issuance of revenue bonds and have supported subsequent bond issues as well.

Valuation Study and District Formation Feasibility Study. The initiative's primary goal was to evaluate the impact of transitioning GCWW from a municipal water department to an autonomous water district. Included in the engagement was a tactical transition plan that examined how to execute best the formation of the potential new district, including an assessment of operational changes necessary to support all required utility and administrative functions. In support of the feasibility assessment, a valuation of the utility was conducted using a combination of approaches to determine a reasonable range of value, from which negotiations on the purchase of utility assets from the City could be negotiated. Black & Veatch facilitated several large workshops during the conduct of the study, including over 100 GCWW associates, to achieve project goals and the client's desire to conduct the study in an open and participative manner.

City of San Diego; Water and Wastewater Cost of Service Studies

Project Director. Ms. Bui served as the Project Director for the City of San Diego's water and wastewater cost of service studies. Black & Veatch prepared a comprehensive look at the City's financial condition and rate structure for the water and wastewater utilities. Faced with large, purchased water increases and required wastewater investments at Point Loma, the City is actively looking for innovative ways to restructure its rates. As part of this multi-year study, Black & Veatch also provided the City with active public outreach services, wholesale contract reviews, and stakeholder negotiations.

Midwestern & Eastern US - Water, Wastewater, Stormwater, Solid Waste & Gas Utility Enterprise
 Financial Planning, Rate & Cost-of-Service Studies, System Development Charges, Indirect Cost
 Allocations, & Business Planning Activities

- Jasper, AL
- Veolia Water, DE
- Florida Governmental Utility Authority, FL
- JEA, FL
- Miami-Dade Water and Sewer Department, FL
- North Miami, FL
- Palm Beach County, FL
- Surfside, FL
- Atlanta, GA
- Cedar Falls, IA
- Bloomington Department of Utilities, IN
- Citizens Energy Group, IN
- Aurora, IL
- Highland, IL
- Thorn Creek Basin Sanitary District, IL
- El Dorado, KS
- Johnson County Wastewater, KS
- Kansas City Board of Public Utilities, KS
- Leavenworth, KS
- Topeka, KS
- Unified Government of Wyandotte County, KS
- WaterOne, KS
- Louisville Water Company, KY
- Louisville Metropolitan Sewer District, KY
- Northern Kentucky Water District, KY
- SD#1 Northern Kentucky Sewer District, KY
- Warren County, KY
- Baton Rouge, LA
- Parish of East Baton Rouge, LA
- Shreveport, LA
- Sewerage and Water Board of New Orleans, LA
- Washington Suburban Sanitary Commission, MD
- Detroit, MI
- Grand Rapids, MI
- Great Lakes Water Authority, MI
- Holland, MI
- Rochester Hills, MI
- Wyoming, MI
- Kansas City, MO
- Metropolitan St Louis Sewer District, MO
- High Point, NC
- Raleigh, NC
- Clayton, NC
- Johnston County, NC
- Winston-Salem, NC
- Lincoln, NE
- Norfolk, NE
- New Jersey American Water, NJ
- New Jersey Infrastructure Bank, NJ
- Veolia Water, NY
- Columbus, OH
- Dayton, OH
- Greater Cincinnati Water Works, OH
- Mason, OH
- Metropolitan Sewer District of Hamilton County, OH
- Broken Arrow Municipal Authority, OK
- Tulsa, OK
- Tulsa Municipal Utility Authority, OK
- Allegheny County Sanitary Authority, PA
- Peoples Gas, PA
- Philadelphia Water Department, PA
- Philadelphia Gas Works, PA
- Beaufort-Jasper Water and Sewer Authority, SC
- Charleston, SC
- Charleston Water System, SC
- Columbia, SC
- Renewable Water Resources, SC
- Woodruff Roebuck Water District, SC
- Arlington, TX
- Fort Worth, TX
- Gulf Coast Water Authority, TX
- Hudson Oaks, TX
- Lower Colorado River Authority, TX
- North Texas Municipal Water Authority, TX
- San Antonio Water System, TX
- Taylor, TX
- Norfolk, VA
- Hydro One, Canada

- Palmas Del Mar Utilities,
PR
- Puerto Rico Aqueduct and
Sewer Authority, PR
- National Water
Commission, Jamaica

Western US - Water, Wastewater, Stormwater, & Solid Waste Utility Enterprise Financial Planning, Rate & Cost-of-Service Studies, Indirect Cost Allocations, Management Audits /Organizational Assessment Studies, & Business Planning Activities

Flagstaff, AZ	Los Angeles Bureau of	San Joaquin County, CA
Glendale, AZ	Sanitation	San Jose, CA
Phoenix, AZ	LADWP, CA	San Juan Capistrano, CA
Tucson, AZ	Leucadia Water District, CA	Santa Ana, CA
Scottsdale, AZ	Lomita, CA	Santa Clara, CA
Antioch, CA	Long Beach, CA	Santa Ynez River Water
Atascadero Mutual Water	Lynwood, CA	Conservation District, CA
Company, CA	Manhattan Beach, CA	Simi Valley, CA
Banning, CA	Marin Municipal Water District,	Soledad, CA
Burbank, CA	CA	Soquel Creek Water District, CA
California American Water, CA	Menlo Park, CA	South Gate, CA
California State University,	Metropolitan Water District of	Sweetwater Authority, CA
Channel Islands, CA	Southern California	Western Municipal Water
Cambria Community Services	Napa, CA	District, CA
District, CA	Newport Beach, CA	Westminster, CA
Camrosa Water District, CA	Oakland, CA	Windsor, CA
Central Contra Costa	Olivehain Municipal Water	Vallecitos Water District, CA
Sanitation District, CA	District, CA	Vallejo Flood Control District,
Chino Hills, CA	Ontario, CA	CA
County of San Bernardino, CA	Orange, CA	West Sacramento, CA
County of San Diego, CA	Orange County Waste and	Yuba City, CA
Cucamonga Valley Water	Recycling, CA	Cherry Hills Sanitation District,
District, CA	Oxnard, CA	CO
Downey, CA	Padre Dam Municipal Water	Parker Water and Sanitation
Dublin San Ramon Service	District, CA	District, CO
District, CA	Palo Alto, CA	Southeastern Colorado Water
Encinitas Wastewater	Patterson, CA	Conservancy District, CO
Authority, CA	Pico Rivera, CA	Waste Management Inc., CO
Escondido, CA	Ponoma, CA	Veolia Water, ID
Fountain Valley, CA	Port Hueneme, CA	Las Campanas Water & Sewer
Golden States Water Company,	Port of San Diego, CA	Cooperative, NM
CA	Rancho California Water	Henderson, NV
Goleta Water District, CA	District, CA	Las Vegas, NV
Helix Water District, CA	Riverside Public Utilities, CA	Salem, OR
Indio Water Authority, CA	San Clemente, CA	Tacoma, WA
Santa Monica, CA	San Diego, CA	Guam Waterworks Authority

PUBLICATIONS & PRESENTATIONS

“Using New Perspectives to Illuminate Affordability Issues When Building Rate Cases,” Association of Metropolitan Water Agencies, October 2024.

"The Conundrum of Water Affordability. What's at Stake," Lead story, Water Finance & Management, February 2021.

"Customer-centricity for Utilities" Zyprme Webinar, October 29, 2020.

"Can't Pay; Won't Pay: COVID Implications for Water Utility Funding" Water Online, September 16, 2020

"How Much is it Worth? An Overview of Valuing Water Utilities" Journal AWWA, August 2020.

"Municipal Water and Privatization" Bank of America Merrill Lynch Water Investors Conference, December 2019

"Water Reuse Cost Allocations and Pricing" Journal AWWA, November 2019.

"A Smoother Road to AMI: Leveraging applicable lessons from the Power Industry" Journal AWWA, September 2017.

"What is a World-Class Utility and How Does Yours Become One?" Water Online, July 25, 2017

"Where are We Heading Next? Strategic Directions in the Water Industry", presented at the Conference of Infrastructure Financing Agencies, Federal Policy Meeting in Washington, D.C., April 2017.

"What's in Your Wallet? Ways to Address Aging Infrastructure and Lack of Money." Annual Utility Management Conference. June 2016

"No More Sacred Cows", published in Journal AWWA, January 2016.

"Business Risks to the Capital Financing Process", published in AWWA's Opflow magazine, September 2015.

"Securing Solid Revenues Streams for Water Utilities is Crucial for Financial Resilience", published in Breaking Energy, September 10, 2015.

"Revenues and Expenses and Ratios, Oh My! A Finance Primer for Non-Finance Professionals", presented at the Annual Utility Management Conference in Glendale, Ariz., March 2013.

Bui, Ann T., Editor, Financial Management for Water Utilities: Principles of Finance, Accounting and Management Controls, 2012, published by AWWA, Denver, Colo.

"Checks and Balances: An Overview of the New Financial Management for Water Utilities Handbook", presented at the Annual AWWA Conference in Dallas, Tex., June 2012.

"Introduction to Financial Planning" presented at the Pacific Northwest Section of the Clean Water Association Winter Short Course University, Portland, Oreg., February 2010.

"Money Makes the World Go 'Round: An Overview of the New Financial Management for Water Utilities Handbook," presented at the Annual AWWA Conference in San Diego, Calif., June 2009.

"Key Performance Indicators" presented at the Annual AWWA Conference in San Diego, Calif., June 2009.

"Everything You Ever Wanted to Know About Finance Management but were Afraid to Ask: An Overview of the New Financial Management for Water Utilities Manual", presented at the Annual AWWA Conference in Atlanta, Ga., June 2008.

"Alternative Funding Sources" presented at the Regional Water Authority Conference in Rancho Cordova, Calif., April 2007.

"Financial Benchmarks" presented at the Annual AWWA Conference in San Francisco, Calif., June 2005.

"Maximize Debt Market Options – Minimize Revenue Adjustments" presented at the Kentucky/Tennessee AWWA/WEF Conference in Nashville, Tenn., August 2004.

"Quantification and Reduction of Risk from Hazardous Air Emissions - Keynote address," presented at the AIChE Annual Conference in San Francisco, Calif., November 1994.

Dave Jagt

Principal Consultant

Mr. Dave Jagt has served as a manager on a variety of projects, including utility revenue forecasting, estimation and projection of revenue requirements, financial planning and rate design, capital improvement program review and financing, computer rate modeling, fixed-asset record keeping and present worth analyses.

Mr. Jagt also has experience with civil engineering projects, such as hydraulic design, computer hydraulic modeling, structural design, building plan review, and preparation of specifications and bid documents.

SELECT PROJECT EXPERIENCE

Philadelphia Water Department; Water and Wastewater Financial Rate Study; Philadelphia, Pennsylvania; 2007-Present

Project Manager/Task Lead. Mr. Jagt has performed comprehensive studies of revenue requirements, costs of service and rates for water and wastewater utilities. The cost of service studies involved allocation of costs of service and determination of charges for 9 municipal wholesale wastewater customers and one wholesale water customers in accordance with the terms of wholesale service contractual agreements with these customers. He assisted with the development of the Tiered Assistance Program Rate Rider Surcharge (TAP-R), a rate rider concept to recover costs related to the PWD's Tiered Customer Assistance Program (TAP), and supported the TAP-R reconciliation. He assisted with contract negotiations with municipal wholesale customers, including the development of exceedance charges. He assisted with issuance of revenue bonds, including preparation of required engineering and financial feasibility studies, presentations before bond rating agencies and preparation of official statements.

Mr. Jagt has participated in enhancements to stormwater cost allocation and rate methodologies and the impacts of the alternative rates on various representative customers. The City's evolving geographic information system network and new billing system facilitated the establishment of stormwater charges based upon the customer's impervious and gross property area.

Mr. Jagt served as a task lead for the Water Department's Alternative Rate Structure study, which consisted of a review of the existing water and stormwater rate structures, supporting policies and programs, as well as an evaluation of a potential rider for pension expenses. The study also included discussions with various stakeholders and prior rate proceeding participants to gather feedback on potential alternatives. A report was issued to the Rate Board in the Fall of 2019.

Harford County; Comprehensive Revenue Analysis and Rate Study; Harford County, Maryland; 2019-2020

Task Leader. Mr. Jagt was a task leader for a water/sewer Operating Fund revenue reconciliation and a comprehensive financial planning study (FY 2021 – FY 2025) for the County. The five-year financial plan involved the projection of revenue and revenue requirements, cash flow analysis, and recommendations

EDUCATION

BS, Civil Engineering, Virginia Polytech Inst St U, 1987

YEARS EXPERIENCE

35

ADDITIONAL CREDENTIALS

American Water Works Association (AWWA) – Rates and Charges Committee

SPECILIZATIONS AND SKILLS

Bond Feasibility; Computer Modeling; Financial Planning; Fixed Asset Recordkeeping; Rate Design

on a series of annual revenue adjustments for the Operating Fund. In addition, the study involved a review of the County's system development charge and basic wholesale water municipality rate.

[DC Water; Financial Plan Model and Construction Cost Model Development; Washington DC, District of Columbia; 2019-2020](#)

Technical Advisor. As Technical Advisor, Mr. Jagt assisted the development of an Excel-based Water/Sewer Financial Plan model for DC Water's Operations group. The objective of this project is to provide a robust yet user-friendly model that could help the leadership within DC Water Operations assess the financial impact of any potential changes in operating and capital expenditure assumptions and revenue assumptions.

[Pittsburgh Water and Sewer Authority; Storm Water Management and Rate Structure Project; Pittsburgh, Pennsylvania; 2012](#)

Consultant. Mr. Jagt assisted with the development of storm water cost allocation analysis, financial planning, user fee funding options evaluation and Equivalent Residential Unit (ERU) rate development as part of the storm water utility feasibility evaluation. The study included concept development, development of combined sewer cost allocation methodology for debt service and operations and maintenance costs, analysis of annual storm water revenue requirements and funding options, and the development of storm water ERU rates.

[Philadelphia Water Department; Storm Water Implementation Services; Philadelphia, Pennsylvania; 2009-2011](#)

Consultant. Mr. Jagt has provided assistance with the implementation of Philadelphia Water Department's parcel area based storm water charges. The implementation assistance included reviewing the Credit and Appeals manual, frequently asked questions documents, and parcel fact sheets, which were provided to non-residential customers as part of the public outreach program. The parcel area based storm water charge bill is to go live on 1 July 2010.

[Henrico County; Storm Water Utility Study; Richmond, Virginia; 2011](#)

Consultant. Mr. Jagt performed the storm water financial planning and funding options evaluation. The study included program review and level of service alternatives evaluation, financial planning and funding options analysis, impervious area analysis and rate structure evaluation. The study also included a preliminary review of credits program, appeals process and billing options evaluation.

[Public Utilities Department; Water Revenue Bond Feasibility Study; Chesapeake, VA; 2010](#)

Project Manager. Mr. Jagt managed Black & Veatch's evaluation of the ability of the city of Chesapeake to issue \$36.4 million in water and sewer revenue bonds, Series 2010. The project included conducting site inspections of water and sewer system facilities to evaluate their adequacy to provide utility service, projection of revenue requirements and revenues; cash flow financial planning analyses; evaluation of adequate working capital balances; and debt service coverage analyses including system maximum and annual debt ratios.

Mr. Jagt also participated in the bond working group for official statement and agreement of trust reviews and in developing presentations to bond rating agencies. He prepared a final engineering report included in the bond issue's official statement.

City of Norfolk; Water Utility Wholesale Contract True-up Calculations; 1995–2003 and 2010–Present

Project Manager/Project Advisor. Mr. Jagt managed and assisted with the preparation of biennial rate projections and revenue true-up calculations during the period of 1995 to 2003 and 2010 to 2025 for Norfolk’s wholesale water contracts with the City of Virginia Beach and the U.S. Navy. A Black & Veatch-developed computer model facilitated the comparisons of adopted rates (using budget projections) with recalculated rates (using actual costs) to determine amounts of revenue to be reserved for use by the annual audit and to meet the contract-specified two-year, or biennial true-up periods.

As stipulated by the contracts, adopted wholesale rates were based on budget projections and specified formulas recognizing the utility basis of cost allocations. The true-up comparisons revealed actual costs of wholesale service based on audited financial results.

City of Norfolk; Bond Issuance Assistance; Norfolk, Virginia; 1993–2020

Project Manager/Project Advisor. Mr. Jagt managed and assisted with Black & Veatch’s evaluations of the Norfolk Department of Utilities’ ability to issue water revenue bonds (Series 1993, 1995, 1998, 2001, 2010, 2012, 2013, 2014, 2015, and 2018). The studies, excluding the Series 2018 bonds, included a formal review of system facilities for sound operating conditions, current regulatory compliance, sufficient treated and raw water capacity, and adequate staffing. All studies included a detailed review and projection of all revenue requirements including operation and maintenance expense, recurring capital, existing debt service, cost of new debt, maintenance of required reserve funds, Payment in Lieu of Taxes (PILOT), transfers to General Fund, and anticipated major capital improvements was also performed. In addition, Mr. Jagt assisted with Black & Veatch’s evaluations of the Norfolk Department of Utilities water refunding bonds (2012, 2015, 2017, and 2020).

City of Atlanta; Water and Wastewater Differential Study; Atlanta, Georgia; 2024

Project Manager. Mr. Jagt managed the update of the Water and Wastewater Differential Study for the City of Atlanta’s Department of Watershed Management (DWM). The purpose of the study was to determine the appropriate differential between inside City and outside City rates for water and sewer services provided by DWM.

City of Columbia – Department of Utilities & Engineering; Water, Sewer and Stormwater Rate Studies; City of Columbia, South Carolina; 2017–2021

Task Leader/Project Advisor. Mr. Jagt assisted with the comprehensive study of water and sewer utility rates for FY 2018, FY 2019, FY 2020 and FY 2021. The annual studies covered multi-year projections of revenue and revenue requirements, cost of service by customer class, design rate schedules of rates for the sale of water to retail and wholesale service customers, and sewer service. Additionally, Mr. Jagt provided support to the City during public sessions related to educating and informing existing stakeholders about the City’s FY 2018 water and sewer financial plan and rates.

Key West Utilities Department; Wholesale Wastewater Rates Assessment and Contract Review; Key West, Florida; 2016

Task Leader. Mr. Jagt was a task leader for a cost of service analysis for wholesale wastewater service and assisted with a review of the existing wholesale wastewater services agreement and drafting an updated wholesale wastewater agreement. This study included an assessment and analysis of the existing wholesale wastewater rate furnished to the US Navy, the development of a proposed wholesale

wastewater rate for Key Haven, a new service territory that was acquired and operated by the Florida Key Aqueduct Authority (FKAA), and an update of the existing Navy Wholesale Wastewater Agreement.

[City of Wilmington; Water, Wastewater, Stormwater Utility Annual Financial Planning and Rate Study; City of Wilmington, Delaware; 2016](#)

Technical Advisor. As Technical Advisor, Mr. Jagt assisted with the rate support efforts for the wholesale wastewater treatment rates. The study involved assisting with the development of a presentation of the wholesale wastewater treatment cost of service analysis methodology and results and assisting with providing responses to the wholesale customer queries regarding the proposed cost of service rates.

[Harford County; Comprehensive Utility Revenue Rate Study; Harford County, MD; 2015](#)

Task Leader. Mr. Jagt was a task leader for a comprehensive water/sewer utility revenue study for Harford County. This comprehensive study included eight (8) interrelated work items comprising of 13 tasks. The work items included Operating and Capital Funding Analysis; Infrastructure Reinvestment Forecasting; Billing Period Modification Analysis; Labor Resource Analysis; Connection Fee Study; Electronic Bill Payment Investigation; Rate Benchmarking; and Rate Seminar. The objective of this comprehensive revenue study is to prepare a six-year financial plan incorporating the financial results from all of the other work items, to determine the magnitude of annual revenue adjustments required during the six-year study period, and its impact on rates. Mr. Jagt was the task lead for the Operating and Capital Funding Analysis and Connection Fee Study work items.

[City of Dallas; Storm Water Fee Study; Dallas, Texas; 2009-2010](#)

Task Leader. Mr. Jagt assisted with the effort to update the storm water user fee program for the city of Dallas. He led the financial planning and cost of service analyses. The study involved the following key tasks:

Financial Planning: Developed storm water revenue requirements for a multi-year financial plan utilizing an Excel-based model. Revenue requirements developed served as the basis for the Utility's Fiscal Year 2009 budget.

Parcel Data Analysis: Involved an extensive parcel data analysis of the city's parcel data received from Dallas County along with billing data received from the new billing system (SAP Pay1) and the previous billing system (CIABS). Analysis also provided an estimation of the runoff coefficient for parcels. A review of the billing mechanism and procedures for ongoing maintenance were reviewed as well as an update of parcel impervious data.

User Fee Methodology: Reviewed various storm water user fee billing methodologies and alternative rate structures. Defined a methodology based on impervious area for residential, and runoff coefficient based impervious area for the non-residential parcels.

Rate Schedule: Defined a rate schedule with a five-tiered rate structure for the residential parcels and an individually computed fee for commercial parcels. Unimproved (vacant) land parcels saw an increase applicable to the level of uncapped/capped gross area square footage.

[Water Revenue Bureau; Utility Billing Appeals Process Optimization; Philadelphia, Pennsylvania; 2009](#)

Consultant. Mr. Jagt assisted in conducting a Utility Billing Appeals Process Optimization study for the Water Revenue Bureau (WRB). The purpose of the study was to do a comprehensive review of the existing billing dispute/appeals and hearing process to facilitate better alignment of business processes with Philadelphia Water Department (PWD) regulations; and to streamline policies, staffing, and workflow

to enhance the overall operations for meeting desired service levels. The key elements of the study included the following:

- Formation of a WRB Advisory Group
- Review of existing business processes and workflow, and policies and regulations
- Gap analysis on processes, technology, policy and staffing issues/constraints
- Optimization of business workflow and technology utilization
- Staffing and workload analysis to determine staffing needs
- Development of recommendations for requisite policy changes
- Development of procedures to integrate the storm water utility billing appeals with the water/sewer appeals processes

[Department of Utilities, City of Lynchburg; Water and Wastewater Financial Planning Model, Water Wholesale Cost-of-Service Study, and CSO Compliance Report Certification; Lynchburg, Virginia; 2006–2007](#)

Project Manager. Mr. Jagt managed Black & Veatch’s effort to develop financial planning models that would allow the City to conduct water and wastewater utility financial planning and rate analyses. The models allowed the City staff to analyze historical customer account and billed volumes, revenues and revenue requirements; develop projections of customer accounts and billed volumes, revenue under existing rates and revenue requirements; prepare cash-based flow of funds statements for each utility; develop financial plans for each utility; and calculate test year rates necessary to provide the net revenue requirements of each utility as established by the financial plans.

In addition, Black & Veatch assisted the City in conducting a cost-of-service water rate study for purposes of developing the cost of service and rates for the City’s wholesale water service to the Counties of Amherst, Bedford and Campbell. Black & Veatch determined revenue requirements and units of service; evaluated revenue requirement basis and cost allocation methodologies; allocated revenue requirements to functional cost components; distributed functional cost component costs to customer classes; determined proposed rates for wholesale service; and assisted with the development of a wholesale service water rate agreement.

Black & Veatch also reviewed and certified the City-prepared Annual CSO Compliance Report. Black & Veatch checked the accuracy of the current year data on each of the provided schedules. The City’s Annual CSO Compliance Report also includes verification that the annual residential wastewater bill based on 700 cubic feet per month is greater than or equal to 1.25 percent of median household income to ensure that enough funds are being spent on wastewater projects.

[Department of Utilities, City of Chesapeake; Comprehensive Water and Wastewater Rate Study; Chesapeake, Virginia; 2005–2006](#)

Project Manager. Mr. Jagt managed Black & Veatch’s comprehensive analysis of the City’s water and wastewater rates. The study includes the development of a 10-year financial plan for water and wastewater separately and combined, cost of service for the identified test year and cost-of-service rate design to equitably recover costs from customers based on their identified service requirements. Black & Veatch also developed a sophisticated financial planning and rate model for the City.

PRESENTATIONS & PUBLICATIONS

Jagt, David. "Rate Rider Mechanisms – An Effective and Efficient Cost Recovery Tool for Water and Wastewater Utilities," 2021 Utility Management Conference. August 2021.

Jagt, David. "Sustainable Wet Weather Funding Can Be Achieved by Developing Multi - Objective Storm water Utility Programs." WEFTEC 2014. August 2014.

Jagt, David. "Building Financial Resiliency: The Critical Role of Establishing and Adhering to Financial Performance Metrics." 2014 Tri-Association Conference. August 2014.

Jagt, David. "Fairfax County, Virginia OWM's Approach to Sewer Utility Financial and Operational Planning." Chesapeake Water Environment Association and The Water and Waste Operations Association of Maryland, Delaware and District of Columbia 30th Joint Annual Conference. July 1999.

Jagt, David. "A Combined Water and Wastewater Utility Approach to Meeting Increasing Costs While Operating Efficiently." WEF/AWWA Joint Conference. March 1999.

Jagt, David. "Useful Marketing Strategies Necessary for Bond Issue Preparedness." Chesapeake AWWA. September 1998.

Jagt, David. "Useful Marketing Strategies Necessary for Bond Issue Preparedness." 1998 Annual VA Section AWWA Conference. October 1998.

Jagt, David. "Fairfax County, Virginia OWM's Approach to Sewer Utility Financial & Operational Planning." Annual WEFTEC "96". October 1996.

Jagt, David. "Norfolk's Use of Computer Models During Water Sales Contract Negotiations." AWWA's 1995 Computer Conference. April 1995.

Jagt, David. "Long Range and Short Range Planning: Fairfax County OWM's Approach to Today's Decision Making." Virginia Review. September 1994.

Brian Merritt

Principal Consultant

Mr. Brian Merritt is a Principal Consultant with Black & Veatch's Rates and Regulatory Practice. With a background in civil and water resources, he brings more than 22 years of experience in the engineering and consulting industry.

Mr. Merritt has extensive experience in in project management, stormwater fee implementation and development, cost of service, financial planning and rate design, wholesale rate and contract support, engineering design, permitting, public outreach, program evaluations and planning, and funding strategy implementation.

SELECT PROJECT EXPERIENCE

Philadelphia Water Department, City of Philadelphia, Pennsylvania; Financial Planning and Cost of Service Study; 2019-Present

Project Manager. Mr. Merritt serves as Black & Veatch's Project Manager for the Water Department's Cost of Service Consulting contract. Mr. Merritt served as project manager for the Water Department's Alternative Rate Structure study, which consisted of a review of the existing water and stormwater rate structures, supporting policies and programs. The study's current focus is on the evaluation of potential alternative stormwater rate structures for residential customers. Current work includes the financial planning, wholesale contract negotiation support, stormwater cost of service analysis, and rate study update for the Philadelphia Water Department (PWD). The study involves a six-year financial planning, cost of service analysis, cost allocation analysis, policy issues review, rate design, and rate case support.

City of Charleston, SC; Stormwater Utility Account Management System Update; 2024-Present

Project Manager. Mr. Merritt serves as Black & Veatch's Project Manager for the City of Charleston, SC's Stormwater Department Account Management System Update project. The initial phase of work included evaluation of existing billing data, billing policies, associated account management systems, data transfer and maintenance, policy review and exploration of billing mechanism alternatives. Current work includes development of updated stormwater billing data, review of rate structure alternatives, billing system updates, refresh of data management process and procedures, collection and enforcement policy review, among other tasks.

Stormwater Rate Structure and Tax Roll Update Services; City of Delray Beach, FL; 2021 - Present

Project Manager. Mr. Merritt is managing the implementation of a tiered residential stormwater rates along with the preparation of the updated stormwater fee assessment for all parcels to be billed via the Palm Beach County Assessor's tax assessment system. Phase 1, work included development of City-wide impervious area mapping; updated stormwater classifications, multi-year financial plan; rate

EDUCATION

MS, Civil & Environmental Engineering, Lehigh University, 2007

BS, Civil & Environmental Engineering, Lehigh University, 2000

YEARS EXPERIENCE

22

ADDITIONAL CREDENTIALS

Stormcon – Advisory Board

SPECILIZATIONS AND SKILLS

Stormwater Fee and Utility Implementation; Stormwater Management; Strategic Planning; Hydraulics; Hydrology; Credit Program Development; Rate Structure Analysis and Design; Stormwater Financial Planning; Public Outreach and Stakeholder Engagement; Stormwater Needs Assessments.

structure updates and engagement with City Council. Phase 2 included the preparation of updated stormwater non-ad valorem tax assessment data and delivery of a master account file to the City as well as the Palm Beach County Tax Assessor's office to enabling billing. Phase 3 work includes policy refinement and business process documentation and related support services.

[City of Hoboken, New Jersey; Stormwater Utility Feasibility Study; 2022- Present](#)

Project Manager. Mr. Merritt serves as Black & Veatch's Project Manager for a Stormwater Utility Feasibility Study for the City of Hoboken, New Jersey. The project involves a review of the City's current stormwater management program, identification of program improvements and level of service enhancements, as well as capital improvements needs. Work also includes impervious area development, customer classification, rate structure development, policy development including credits. Recommendations were provided to City leadership in late-2022.

[Metropolitan Sewer District of Greater Cincinnati \(MSD\); Wet Weather Impervious Surface Charge Feasibility Study; 2021](#)

Project Support. Mr. Merritt provided project support in a study to evaluate the feasibility of implementing a new wet weather fee by bifurcating costs currently recovered by the Metropolitan Sewer District under its sewer rates. Mr. Merritt aided in the rate structure development and the evaluation of available data sources (including impervious area and property assessment data), to help identify potential rate structure options and associated policies.

[City of Newark, New Jersey; Stormwater and Sewer Rate Study; 2020-2021](#)

Project Support. Mr. Merritt served as project manager to City of Newark, New Jersey's Department of Water and Sewer Utilities' Stormwater and Sewer Rate Study. The primary objective of the study was to evaluate the impact of the implementation of a stormwater fee on Newark's sewer rates and to evaluate customer bill impacts ahead of further consideration by City leadership. City staff and administration were presented with the results of both analysis in 2021.

[City of Myrtle Beach, South Carolina; Stormwater Management Fee and Level of Service Analysis Rate Study; 2020-2021](#)

Project Manager. Mr. Merritt served as Black & Veatch's project manager, as a subconsultant to W.K. Dickson, working with the City of Myrtle Beach to complete a comprehensive review of their stormwater rates. Work included the creation of stormwater financial and rate model, projecting detailed revenue requirements, modeling the impact of the level of service alternatives, developing capital financing mix, identifying the City's fiscal position and required financial metrics. Anticipated system-wide revenue increases were developed along with the associated rate schedules to support the increase in the City's stormwater operational and capital program needs to address growth, climate change and water quality issues. City leadership approved the request revenue adjustment in the Spring of 2021.

[New Jersey Future, Trenton, NJ; On-call Stormwater Utility Expert Support Services; 2019-2020](#)

Project Manager. Mr. Merritt worked with NJ Future to develop the New Jersey Stormwater Utility Resource Center, providing technical input and guidance, narrative development as well as content review. He assisted in on-call service support, providing assistance and feedback to NJ Future staff on stormwater utility related policy matters. Mr. Merritt, along with other Black & Veatch staff, conducted stormwater utility training sessions for NJ Future staff, municipal staff and advocacy organizations.

Hannibal Board of Public Works; Stormwater Utility Feasibility Study; Hannibal, MO; 2017-2019

Project Support. Assisted in the evaluation of impervious area data. Drafted policy regarding stormwater roles and responsibilities for the City, BPW and private property owners.

City of Norfolk Department of Utilities, Norfolk, Virginia; Water Utility Wholesale Contract True-up Calculations; 2019

Project Support. Mr. Merritt aided in the preparation of biennial revenue true-up calculations for Norfolk's wholesale water contract with the City of Virginia Beach for the periods of FY 2018 and FY 2019. As stipulated by the contract, adopted wholesale rates were based on budget projections and specified formulas recognizing the utility basis of cost allocations. The true-up comparisons revealed actual costs of wholesale service based on audited financial results. Mr. Merritt supported the review of updated fixed asset listings to update utility basis cost allocations, revisions to demand based allocations, updates to annual O&M expenses, as well as review of billing and revenue adjustments.

Metropolitan St. Louis Sewer District (MSD), St. Louis, Missouri; Rate Consultant to MSD Rate Commission; 2019

Project Support. Black & Veatch has served as a rate consultant to MSD's Rate Commission the last two rate cycles. MSD establishes rates through a thorough stakeholder engagement process, whereby a broad cross section of stakeholders serve as a Rate Commission to evaluate MSD's Rate Proposal, supporting documentation, and testimony. In response to a request made by the Rate Commission, Mr. Merritt supported the Black & Veatch team in the development of wastewater rate comparisons of MSD's wastewater rates and rate structure to those of selected peer utilities across the country. This work included a review of industry trends, as well as the costs of wastewater collection and treatment, underlying infrastructure needs, regulatory requirements, revenue sources, rate structures as well as resulting customer rates and bill impacts.

City of Takoma Park, Maryland; Stormwater Rate Study; 2018-2019

Project Manager. Mr. Merritt worked with the City of Takoma Park, Maryland to complete a review of their stormwater billing information and associated stormwater rates. The City had not holistically re-evaluated its stormwater rate structure since its initial implementation in the late 1990s and had recently obtained updated impervious area data (i.e. planimetric data). Mr. Merritt worked with the City to assess the impacts of the updated data set on the existing rate structure and identify potential rate adjustments needed to maintain revenue sufficiency for the stormwater program. In addition, alternative rate structures were developed to help improve the public understanding and improve the overall equity of the stormwater rate structure. The City adopted a tiered residential rate structure and updated the baseline billing unit from an equivalent residential unit (ERU) basis to a unit area basis, using 500 square feet of impervious area as the base billing unit.

City of Jonesboro, Arkansas; Stormwater Feasibility Study; 2018-2019

Project Support. Mr. Merritt assisted in the evaluation of a dedicated stormwater fee for the City of Jonesboro, Arkansas. This involved the evaluation of policies related to stormwater revenue requirements, impervious area development, customer classification, rate structure development, billing and enforcement as well as credit and appeals. Work included establishing stormwater units of service and analyzing the operations, capital and other costs to determine the revenue requirements.

Unified Government of Wyandotte County and Kansas City, Kansas| Stormwater Feasibility Study | 2018-2024

Project Support. Mr. Merritt assisted in the development and evaluation of an impervious area based stormwater user fee for the Unified Government of Wyandotte County and Kansas City, Kansas (UG). UG currently charges all customer a flat fee for stormwater services. Work included the review of available data sources, evaluation of stormwater rate structures, development of stormwater customers classifications, establishing stormwater units of service as well as the development of credit and appeals policies. Other areas of work included the development of updates stormwater revenue requirements including an assessment of operation and maintenance, capital improvement and capital financing needs. The impervious area based stormwater fee was adopted and implemented in 2024.

City of Columbia, South Carolina – Department of Utilities & Engineering; Stormwater Bond Feasibility Study; 2018

Project Support. Mr. Merritt worked with the City of Columbia, South Carolina to perform a five-year financial feasibility analysis of the City's Stormwater System operating results associated with the issuance of Stormwater System Revenue Bonds. The analysis included a forecast of revenues and revenue requirements, to determine the financial feasibility of the City issuing the Series 2018 Bonds.

City of Newark, New Jersey; Stormwater Utility Feasibility Study; 2017-2019

Project Support. Mr. Merritt assisted in the evaluation of a stormwater utility for the City of Newark, New Jersey. The project involved a review of the City's current stormwater management program, identification of program improvements and level of service enhancements, as well as capital improvements needs. Part of the evaluation includes the allocation of combined sewer related costs between sewer and stormwater revenue requirements. Work also includes impervious area development, customer classification, rate structure development, policy development including credits, appeals, as well as billing and enforcement. Recommendations were provided to City leadership in Mid-2019 along with anticipated planned public outreach and education efforts. The City is currently pursuing grants to help fund implementation.

City of Newark, Delaware; Stormwater Utility Implementation; 2016-2018

Project Support. Mr. Merritt assisted in the development and implementation of a stormwater utility for the City of Newark, Delaware. This involved the evaluation of policies related to stormwater revenue requirements, impervious area development, customer classification, rate structure development, billing and enforcement as well as credit and appeals. Work included establishing stormwater units of service and analyzing the operations, capital and other costs to determine the revenue requirements. During 2017, Mr. Merritt assisted with the implementation phase of the project helping the City with the finalization of customer service processes including credit and appeals, billing integration and parcel account mapping. The City began billing for stormwater in January 2018.

City of Cincinnati, Ohio – Stormwater Management Utility; Stormwater Rate Study; 2016-2018

Project Manager. Mr. Merritt worked with the City of Cincinnati Ohio's Stormwater Management Utility (SMU) to complete a comprehensive review of their stormwater rates. Work included the evaluation of projected revenue requirements and anticipated system-wide revenue increases due to the anticipated need for a large capital program to rehabilitate and/or replace components of the City's Barrier Dam as well as other critical stormwater infrastructure. Additional costs associated with NPDES MS4 Phase II

permit requirements, increased operation and maintenance costs, were also evaluated. A financial plan report was delivered to staff in and City Council ultimately adopted updated stormwater rates to support the revenue requirements of SMU.

Philadelphia Water Department, City of Philadelphia, Pennsylvania; Financial Planning and Cost of Service Study; 2017-2018

Project Manager. Mr. Merritt supported the financial planning, stormwater cost of service analysis, and rate study update for the Philadelphia Water Department (PWD). The study involved a six-year financial planning, cost of service analysis, cost allocation analysis, policy issues review, rate design, and rate case support. Mr. Merritt aided in the development of the financial plan, cost of service analysis including: sewer cost of service, system-wide billing units estimates, stormwater cost allocation, user fee methodology, credit, incentive and customer assistance program cost recovery. Mr. Merritt worked with the project team to develop a rate rider concept to recover costs related to the PWD's Tiered Customer Assistance Program (TAP). Mr. Merritt led the stakeholder engagement support services provided under this contract. Mr. Merritt also helped with drafting testimony for the rate proceedings.

City of Columbia, South Carolina – Department of Utilities & Engineering; Water, Sewer and Stormwater Rate Study; 2017

Stormwater Task Lead. Mr. Merritt assisted with a water, sewer and stormwater rate study for the City of Columbia, South Carolina's Department of Utilities & Engineering. Mr. Merritt led the stormwater portion of the study. Project worked included: development of a multi-year financial plan, revenue and revenue requirements review, stormwater rate structure alternatives analysis, development of financial metrics, review of capital program needs and financing. The project included the development of a Stormwater Rate Study report and presentation of the Rate Study findings and recommendations to City Council. Based upon the study's findings, the City adopted a series (i.e. multi-year) stormwater rate increases.

City of Havre de Grace, Maryland; Water and Sewer Rate Study; 2016-2017

Project Manager. Mr. Merritt served as project manager for the City of Havre de Grace, Maryland's comprehensive review of their current water and sewer rates. The project integrated an asset renewal forecast with the rate study and development of alternative funding mechanisms (such as an asset reinvestment charge) to alleviate the current deficit fiscal position and adequately fund water and sewer operations and capital program obligations. Work also included: Preparation of a reasonable estimate of repair and renewal forecast for all of the water system treatment, storage, transmission, and distribution assets; Development a five-year financial plan for the water/sewer enterprise fund to assure financial self-sufficiency; Review of the existing rate structure and design rate schedules to enable a defensible recovery of fixed and variable costs of the water and sewer utilities; and presentation of the Rate Study findings and recommendations to the Water and Sewer Rate Commission and to the City Administration and Council.

Philadelphia Water Department, City of Philadelphia, Pennsylvania; Stormwater Cost of Service and Rate Study; 2015-2016

Project Support. Mr. Merritt supported the stormwater cost of service analysis, and rate study update for the Philadelphia Water Department. The study involved a six-year financial planning, cost allocation analysis, stormwater fee policy issues review, rate design, and rate case support. Mr. Merritt aided in the development of stormwater related analysis including: sewer cost of service, system-wide billing units

estimates, stormwater cost allocation, user fee methodology, credit, incentive and customer assistance program cost recovery. Mr. Merritt helped with drafting testimony for the rate proceedings.

[Pittsburgh Water and Sewer Authority, Pittsburgh; Stormwater Management and Rate Structure Project; 2015-2019](#)

Project Manager. Mr. Merritt is currently serving as Project Manager for Black & Veatch's portions of the Pittsburgh Water and Sewer Authority's (PWSA) Stormwater User Fee Development and Implementation project. Phase 2 builds from work previously conducted in 2012, and is intended to take the decisions and recommendations developed during Phase I- Feasibility Study up to the development of a draft ordinance for consideration by Pittsburgh City Council. Project work includes updates to the stormwater cost allocation analysis, financial planning, user fee funding and rate structure finalization. Mr. Merritt is providing technical advice and input into PWSA's public outreach efforts.

[South Fayette Township, Allegheny County, Pennsylvania; Stormwater Program Needs Assessment; 2015](#)

Project Manager, while with a former employer, assisting South Fayette Township in a comprehensive needs assessment of their existing stormwater program. The goal of the project was to define an enhanced program that meets the future needs and priorities of the community while addressing operation and maintenance, infrastructure replacement, and MS4 compliance responsibilities. All of the main streams, which run through the Township, are impaired. Impairments include acid mine drainage, nutrients, PCBs, and sediments. Actions to address these pollutants must be considered as part of the next MS4 permit cycle. A stormwater needs assessment committee was conveyed to gain public input into which program areas needed the most attention and to develop a five-year plan on which to evaluate funding options.

[White Township, Indiana County, Pennsylvania; Stormwater Assessment Feasibility Study; 2014-2015](#)

Project Manager, while with a former employer, assisting White Township in a program evaluation process that could result in the implementation of a stormwater user fee in the Township. This fee would be used to support enhancements to the Township's stormwater management program with resources directed to meet community-wide goals and needs. The project was intended to provide the Township with sufficient information on the viability of implementing a stormwater user fee, prior to investing in full implementation. Responsible for program evaluation and planning, billing system and data evaluation, impervious area data analysis, parcel and account review, rate structure development, initial rate estimates, public/Board of Commissioners presentations as well as overall project and client management. White Township implemented their stormwater fee in early 2016.

[Radnor Township, Montgomery County, Pennsylvania; Stormwater Program and Fee Implementation; 2012-2013](#)

Project Manager, while with a former employer, for the evaluation and development of an updated stormwater management program and funding mechanism for Radnor Township, PA. Led project team working with the Township personnel to develop a dedicated funding source to help meet the community's goals for infrastructure maintenance, flood mitigation, and green infrastructure. Services included stormwater program assessment and level of services analysis, financial analysis, data and master account file development, stakeholder meeting facilitation, rate evaluation, rate structure and

ordinance development. Radnor convened a stormwater advisory committee to provide input into key policy issues such as the stormwater program needs, level of service considerations, the overall program plan, rate structure, credit and incentive program options and public education requirements. Assisted the Township with appeals policy development, billing system implementation support, customer service training, draft credit program development, and public education efforts. The stormwater user fee was approved by the Radnor Board of Commissioners in September 2013.

[City of Meadville, Crawford County, Pennsylvania; Stormwater Program and Fee Implementation Project; 2012-2013](#)

Project Manager, while with a former employer, for the evaluation and development of an updated stormwater management program for the City of Meadville, PA. Assessed the current stormwater program with the goal of establishing a functioning stormwater funding mechanism that fully accounts for the City's stormwater program costs. Tasks included a review of the City's current level of service, evaluation of the stormwater program's organizational structure, future needs assessment, current cost estimation, facilitation of Citizen's Advisory Groups, ordinance development, credit and appeals policy and program development, customer service training, management of public outreach and education activities as well as GIS and billing database development. Two separate Citizen's Advisory Groups were convened, one to provide input on the initial stormwater fee policies and the second to help develop a detailed stormwater credit and appeals program to enhance the equity of the fee and provide incentives to private property owners to better manage stormwater on-site. The Meadville stormwater fee was approved by their City Council in November 2012 and the first bills were processed in 2013.

SELECTED PUBLICATIONS AND PRESENTATIONS

[Presentations – Stormwater Utilities](#)

Co-presented, "Stormwater Utility Reboot: The Need to Maintain Equity in Stormwater Cost Recovery," StormCon, September 2022.

"Road to Resiliency: Integrated Stormwater Management Planning and Funding," NJ Future, May 2015

New Jersey Watershed Institute Stormwater Seminar, June 2019

Government Finance Officers Association of Pennsylvania, April 2015

Villanova University Guest Lecturer – Sustainability & Science, 2014

St Joseph's University Stormwater Workshop, 2014

Villanova University Stormwater Symposium, 2013

3 Rivers Wet Weather, 2013

Erie County GIS Workshop, 2013

PA Northwest City Manager's Meeting, 2012

[Presentations – Affordability](#)

Co-Authored "Rate Rider Mechanisms – An Effective and Efficient Cost Recovery Tool for Water and Wastewater Utilities," 2021 Utility Management Conference in Atlanta, GA., August 2021.

Philadelphia Water's Tiered Assistance Program (TAP) Cost Recovery & Financial Safeguards, AWWA/WEF Affordability Symposium, August 2018

PUBLICATIONS

"Sustainable Stormwater Programs and Financing", Pennsylvania Borough News, October 2014

David Sayers

Manager, Consulting

Experienced Project Manager in water use analytics, water resources management, water efficiency and conservation, water system audits, non-revenue water management and financial analysis. David specializes in leading complex analytical studies and is highly proficient in a variety of advanced analytical software packages and has developed numerous tools and customized applications to automate analyses and find meaning and value in data. He is the lead developer of the American Water Works Association (AWWA) Free Water Audit Software© and associated water audit data management tools which have been downloaded over 15,000 times.

SELECT PROJECT EXPERIENCE

Veolia Water New York; Load Study; West Nyack, New York; 2023

Project Manager. Black & Veatch performed a Customer Class Load Study for Veolia (formerly Suez) Water, New York. The study leveraged the investment in Advanced Metering Infrastructure (AMI) to provide new insights on the timing of peak demands on the system, and the drivers of those demands, by utilizing hourly customer consumption data. David was the architect for managing and integrating multiple data sources to support the Load Study, utilizing records from system production data, water storage data, customer billing data, AMI data (for those customers with AMI meters) and Geographical Information System (GIS) data. David worked with the client and rate modeling team to integrate the Load Study results into the Cost of Service Study and ultimately through to successful incorporation into the rate case and approval by the NY Public Service Commission.

Veolia Water Delaware; Load Study; Wilmington, Delaware; 2023

Project Manager. Black & Veatch performed a Customer Class Load Study for Veolia (formerly Suez) Water, Delaware. The study leveraged the investment in Advanced Metering Infrastructure (AMI) to provide new insights on the timing of peak demands on the system, and the drivers of those demands, by utilizing hourly customer consumption data. Data management challenges were met using data solutions such as Snowflake, MS SQL Server, MS Power BI, ESRI ArcGIS Pro, as well as the more standard desktop software packages. Load studies utilizing customers AMI data are relatively uncommon within the water utility sector as AMI is not yet prevalent. This innovative study provided more reliable insights on the timing and drivers of system peak demands compared to those available from the analysis of monthly, bi-monthly, or quarterly customer billing data. David worked with the client and rate modeling team to integrate the Load Study results into the Cost of Service Study and ultimately through to successful incorporation into the rate case and approval by the DE Public Service Commission.

Veolia Water Idaho; Load Study; Boise, Idaho; 2022

Project Manager. Black & Veatch performed a Customer Class Load Study for Veolia (formerly Suez)

EDUCATION

BS, Environmental Studies, Environmental Protection and Monitoring, University of Hertfordshire, 1997, United Kingdom

YEARS EXPERIENCE

25

EXPERTISE

Water Resources Management; Water Efficiency; Demand Forecasting; Hydrology; AWWA Water System Audits; Non-Revenue Water Management; Stormwater Fee and Utility Implementation; Financial Analysis; Advanced Data Analytics & Business Intelligence, Data Visualization, Database design and management. Data Integration & Programming.

Water, Idaho. The innovative study leveraged the investment in Advanced Metering Infrastructure (AMI) to provide new insights on the timing of peak demands on the system, and the drivers of those demands, by utilizing hourly customer consumption data. David was the architect for managing and integrating multiple data sources to support the Load Study, utilizing records from system production data, water storage data, customer billing data, AMI data (for those customers with AMI meters) and Geographical Information System (GIS) data. The study was data intensive and in excess of 0.5 billion data points were managed and analyzed as part of the study. Black & Veatch worked with the client and the Idaho Public Utilities Commission and interested parties to take input into the design of the study.

[Unified Government of Wyandotte County \(UG\); Stormwater Rate Implementation; Kansas City, Kansas; 2023 – Present](#)

Project Manager. David served as a subject matter expert on this project and led the task of matching over 56,000 parcels to more than 70,000 utility accounts, based primarily on matching parcel address and account address records. Due to challenges in the consistency and structure of the two independent data sets, matching parcels to accounts required highly innovative approaches using multiple software tools. Primarily the work was conducted in a MS Access database and included parsing and recombining address attributes to improve consistency and integrity of the data and allow programmatic data matching. Additional processes used in the project included geocoding and spatial matching in GIS, approximate string matching for parcel-owner to account-owner data, and a prioritized effort of manual data validation.

[City of Delray Beach; Stormwater User Fee Revenue and Tax Billing Integration Support, Delray Beach, Florida; 2022 - Present](#)

Subject Matter Expert. David was part of the team conducting a stormwater user fee rate study and the preparation of stormwater tax roll assessment for billing via Palm Beach County's tax assessment system. David led the preparation of the stormwater tax roll. This task involved developing a MS Access database to manage and combine parcel data and impervious area data for over 30,000 parcels and assign the appropriate stormwater fee using a tiered rate structure. A relational database was used to apportion the impervious area for condo parcels to individual condo owners. The preparation of the tax roll data also required detailed programming to prepare a text file meeting the exact requirements of the County tax assessment system.

[Charleston Water System; Financial Services; Charleston, SC; 2019-2023](#)

Subject Matter Expert. David has supported recent work including review of contracts with wholesale customers, development of rates for raw water customers, creation of a surcharge for excess ammonia, development of a water rate model for a water wholesale customer and preparation of a bond feasibility report. Current work includes reviewing alternative water and wastewater rate structures and updating the water and wastewater comprehensive rate models. David is currently leading the development of a Power BI dashboard for this client to trend and track water consumption and revenue by customer class.

[Great Lakes Water Authority; Units of Service and System Water Audit for Non-Master Metered Customers; Detroit, Michigan; 2017-2023](#)

Project Manager. David was the Project Manager for this study of one of the largest and most complex water distribution systems in the U.S. The Great Lakes Water Authority (GLWA) provides water to approximately 3.5 million customers in southeast Michigan, including the City of Detroit and over 100

surrounding communities. Black & Veatch was hired to develop the Units of Service for communities that are supplied with water by GLWA but do not have a master meter. Simultaneously, Black & Veatch developed a Water Audit using AWWA M36 principles for the entire water system. The project duration was approximately two years and covered all aspects of the standard Water Audit, from an evaluation of water production facilities through to analyses of hourly consumption data from the Itron AMI network covering Detroit's 200,000 customers. In the second phase of the project, the team implemented District Metered Areas to refine estimates of water losses and ensure equitable financial cost allocation.

City of Wilmington, Delaware; AWWA Water Audit Development & Review; Wilmington, Delaware; 2015-2021

Subject Matter Expert. David applied his expertise in AWWA Water Audits to help develop and review the annual water audit for the City of Wilmington following the AWWA M36 Methodology. The City's Water Audit is reviewed by Black & Veatch for accuracy prior to submission to the Delaware River Basin Commission as part of their regulatory program. In 2021, the City of Wilmington utilized the new AWWA Water Audit Software v6.0 which utilizes a new data grading format and Black & Veatch assisted the City in understanding the new software features. The review of the water audit led to an increased level of scrutiny in several areas of the water audit, including the production metering facilities, thus building confidence in the water audit data and performance indicators to support non-revenue water management.

Sewerage and Water Board of New Orleans; Water Audit and Demand Analysis; New Orleans, Louisiana; 2020 – 2022

Subject Matter Expert. David was the task lead for a Water Loss Analysis for the Sewerage and Water Board of New Orleans (SWBNO). David led the effort to collaborate and guide SWBNO staff in gathering the appropriate data to support the AWWA water balance model and use the AWWA Water Audit Software. This process also included determining the appropriate data grading, or confidence level, for each water audit input. The water audit process led to the development of actionable KPIs that were presented within a Power BI dashboard that will enable SWBNO to benchmark their performance against peer utilities and to determine the next steps to improve their water audit and reduce the costs and impacts of water losses. David also led a separate task to project pumping volumes and peak demand factors to support the financial model.

SUEZ Water New York; Comprehensive Service Classification Study; West Nyack, New York; 2018-2019

Project Manager. David was the Project Manager for developing a Comprehensive Service Classification Study with a particular focus on multi-family sub-classes of customers, and the seasonality of commercial and industrial customers. The Black & Veatch team leveraged its nationwide expertise and experience with evaluating utility rate-setting policies, technical analysis of customer accounts and usage profiles and industry-accepted cost of service and rate structure principles. The team also developed sophisticated and automated analytical techniques to cross-check the billing database against third-party land use classifications and used online mapping tools to retrieve property image data to verify the accuracy of classifications. A project report was produced and submitted to the New York Public Services Commission.

City of Sugar Land; System Water Audits; Sugar Land, Texas; 2019

Project Manager/SME. David took on many roles for this project including Project Manager and Subject Matter Expert. David applied the AWWA M36 methodology to develop Water Audits for four distinct water systems for the City of Sugar Land. David conducted a detailed analysis of customer meter test data to calculate apparent losses and developed a cost-benefit analysis to prioritize large meters to replace or repair to achieve the maximum return on investment. Recommendations were identified that will lead to improved reliability of data, and verification and reduction of real loss through field-based investigations.

American Water; Water Efficiency Program Development & Implementation; Merrick, New York; 2018-2019

Project Manager/SME. David took on many roles for this project including Project Manager and Subject Matter Expert. He led the Black & Veatch team (including sub-contractors) to prepare detailed data analyses to determine customer water use trends and analyzed the results of over 5,000 completed customer surveys to help develop a data-driven and comprehensive conservation program for New York American Water. David worked with the corporate headquarters of American Water and local staff in New York to help implement the program which included an instant rebate on smart irrigation controllers and the development of a lawn watering phone app in conjunction with Cornell University's Northeast Regional Climate Center.

Georgia Environmental Protection Division; Water Audit Validation; Atlanta, Georgia; 2017

Subject Matter Expert. David helped Black & Veatch complete 92 AWWA water loss audit validations for large and small water utilities across Georgia. David used his expertise in the AWWA Water Audit methodology and his familiarity with the AWWA Water Audit Software to lead water audit data validity discussions with utility representatives. This process involved reviewing each input to a completed AWWA Water Audit and confirming that the origin of the data and the water utilities' data collection and management practices were scored appropriately within the AWWA water audit software ensuring data integrity for Georgia EPD.

SUEZ Water New York; Evaluation of Low-Income Assistance Programs; Rockland County, New York; 2017, 2022

Project Manager/SME. David led the evaluation of a potential low-income assistance program for SUEZ in Rockland County, NY. The evaluation included a review of established best practices and published research on low-income programs within water utilities across the United States. David's team worked closely with SUEZ to determine how a low-income program could be tailored for the Rockland County customer base, taking a close look at how assistance could be provided for hard-to-reach low-income residents within multi-family buildings.

SELECTED PUBLICATIONS AND PRESENTATIONS

"Building Trust in Water Audit Data: Validity, Volume and Value." North American Water Loss Conference. December 2017.

"Best Practice Water Audits and Loss Control Programs." AWWA Seminar. August 2017.

"AWWA Water Audit Data Initiative: The First Six Years." American Water Works Association Annual Conference & Exposition. June 2017.

"The Water Audit Data Initiative: Five Years and Accounting." Journal AWWA. November 2016.

"Water Audit Data Initiative." AWWA Water Infrastructure Conference. October 2016.

"Review of the AWWA Free Water Audit Software and Compiler Tool." North American Water Loss Conference. December 2015.

"Analysis of Calendar Year 2012 Water Audit Data from Public Water Supply Systems in the Delaware River Basin." Delaware River Basin Commission. February 2015.

"Water Withdrawals in the Delaware River Basin: Past Trends and Future Planning." AWRA Annual Conference. November 2014.

"Improving Water Efficiency in the Delaware River Basin through Water System Audits." American Water Resources Association (AWRA) Annual Conference. November 2014.

"Water Loss: The North American Dataset." American Water Works Association. Vol. 105, Number 6. June 2013.

"Water Use Trends of the Energy Industry in the Delaware River Basin." Water Resources Association of the Delaware River Basin - Annual Conference. November 2012.

"Consumptive Water Use: Missing in Action." AWRA Annual Conference. November 2010.

"An automated approach to streamflow data retrieval and statistical analysis." Pennsylvania Council of Professional Geologists. May 2008. Publications

MEMO

To: Lawrence Yangalay – Philadelphia Water Department

From: Jon Davis, Henrietta Locklear, Jennifer Tavantzis – Raftelis Financial Consultants

Date: February 18, 2025

Re: Digest to accompany reports and projections to support 2025 TAP Reconcilable Rate Rider calculation (Formal Notice)

Introduction

Raftelis developed reports and projections to support the TAP Reconcilable Rider calculation performed by Black and Veatch Management Consulting, LLC (Black & Veatch) for the Philadelphia Water Department (PWD) for the rate year beginning in September 2025. Raftelis delivered the final reports and projections on January 23, 2025 in a single workbook with multiple worksheets, one for each report and others for calculations and explanatory information. These are included attached as Schedule RFC-3.

Reports

Raftelis developed four reports, DR-1, DR-2, DR-3, and DR-4. The reports were developed in accordance with specifications agreed upon by PWD, Black & Veatch and Raftelis. The reports cover actual data for months contained in two periods:

- *Reconciled Period* (April 2024 to August 2024)
- *Most Recent Period* (September 2024 to November 2024)

Projections

Raftelis projected TAP participants, TAP discounts, TAP water consumption and TAP sewer consumption for the *Most Recent Period* months December 2024 to August 2025 and the *Next Rate Period* months September 2025 to August 2026.

TAP participation is projected to increase 1% per month, on average, over the projection period. These modest monthly increases are expected owing to small monthly increases in IDEA pre-qualified candidates and traditional enrollment candidates. Month to month, billing and related discounts have historically varied based on the length of the month and number of business days. Participation and related projections are set up to reflect this historical observation.

Important Information and Definitions Used in Reports and Projections

Data Source – The snapshot of basis2, WRB’s billing system that is used to generate reports DR-1 through DR-4. In this case, the snapshot is dated November 30, 2024. The snapshot of Basis2 will be updated during the course of the proceeding.

Reconciled Period – The period of April 2024 to August 2024 that was projected for the prior TAP Reconcilable Rate Rider (TAP-R) calculation. This year, the reconciled period captures the timeframe in which IDEA pre-qualified customers began to be enrolled in the program.

Most Recent Period – The anticipated period during which the TAP-R calculated in the last annual rate proceeding is effective. The Most Recent Period comprises September 2024 to August 2025 and within the Most Recent Period, September 2024 to November 2024 numbers are actuals, while December 2024 to August 2025 are projections. September 2024 to November 2024 figures were projected in the last TAP-R rate proceeding and can now be reconciled.

Next Rate Period – The fiscal year and/or the period that immediately follows the Most Recent Period, and in which the TAP-R presented in this rate proceeding is effective. In this case, the next rate period comprises September 2025 to August 2026 and the entire period is projected data.

TAP Participants – The number of unique customers that were issued a TAP bill during the period 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 during the month in question. Note that depending on a customer's billing cycle, a customer enrolled in one month is first included in this number in the month in which they receive their first bill, which may not be the same month that customer is enrolled.

TAP Discount Amount – The total dollar amount of TAP discounts associated with TAP bills. TAP discount amount does not include non-TAP discounts issued to TAP customers, if any. TAP Discounts are stored in the TAP_DISC_AMNT field of the PHL_TAP_ADJUSTMENT_DETAILS table. This does not include arrearage or penalty forgiveness.

For use in projections, the average of actual TAP discounts from the Most Recent Period is used as it most accurately reflects the most recent base rates and TAP participant profile.

Billed Water Usage (Consumption) – Billed water usage is developed from the debit lines table (CIS_DEBIT_LINES.tran_qty) in basis2 for records associated with water usage. Quantities in this field are stored in CCF units and are multiplied by 100 to convert to cubic feet.

Billed Sewer Usage – Billed sewer usage is developed from the debit lines table (CIS_DEBIT_LINES.tran_qty) in basis2 for records associated with sewer usage. Quantities in this field are stored in CCF units and are multiplied by 100 to convert to cubic feet.

Cost per Participant – Dollars of TAP discounts issued (TAP Discount Amount) divided by the number of TAP participants based on the most recent period actual data.

Consumption per Participant – Total water consumption (Billed Water Usage (Consumption)) divided by the number of TAP participants based on the most recent period actual data.

Results

Results from the analysis are summarized in table 1.

Table 1. Summary of Results (Formal Notice)

-				Average Monthly Number of TAP Participants	Total Number of TAP Participants	Total TAP Discount
Reconciled Period - Actual	April 2024	to	August 2024	57,181	285,904	\$12,091,024
Most Recent Period - Actual	September 2024	to	November 2024	58,665	175,994	\$ 9,612,362
Most Recent Period - Projected	December 2024	to	August 2025	59,757	537,811	\$29,373,940
Most Recent Period - Entire	September 2024	to	August 2025	59,484	713,805	\$38,986,303
Next Rate Period	September 2025	to	August 2026	60,827	729,929	\$39,866,915

*This counts the number of monthly participants during the period. Most participants are the same from month to month, so this does not count unique participants.

Jon Davis

PROJECT DIRECTOR Senior Principal

PROFILE

Jon joined Raftelis in 2000 and currently serves the firm as an Executive Vice President. Jon has extensive experience in financial forecasting and modeling and has led projects to apply advanced risk analysis techniques to rate and financial planning studies for the water and wastewater industry. Jon is an active member of the Water Environment Federation (WEF) Utility Management Committee where he chairs the subcommittee on Finance and Administration. He also serves on the WEF Technical Practices Committee (WEFTEC) and the WEFTEC Planning Committee. Jon has presented at many industry conferences, co-authored a chapter entitled, “Financial Capability and Affordability,” for the Fourth Edition of the industry guidebook, *Water and Wastewater Finance and Pricing: The Changing Landscape*, and led the 2018 update of WEF’s *Manual of Practice No. 27, Financing and Charges for Wastewater Systems*. Prior to joining Raftelis, Jon worked in water resource recovery facility management and capital projects engineering.

KEY PROJECT EXPERIENCE

Philadelphia Water Department (PA): Wholesale Rate Arbitration and Customer Service Strategic Review

Jon is serving as project manager on a long-term contract to provide financial and management consulting services for the Philadelphia Water Department (PWD). The services involve debt issuance support, financial forecasting, service affordability review, and strategic planning assistance. At present under the agreement, Raftelis is performing a bond feasibility study and consulting engineers’ report for inclusion in PWD’s Official Statement for a 2016 planned bond issuance. The bond feasibility study provides a forecast of revenues and expenditures for the utility to assure bondholders that PWD will be able to repay bonds and meet debt covenants.

As part of the same engagement, Raftelis is identifying and evaluating affordability programs including customer assistance and rate structure alternatives. The affordability program development is driven by a City Council mandate to overhaul the existing customer assistance programs. To date, Raftelis has developed program structure and administration options, modeled revenue impacts of a variety of options (including ones proposed by Council and outside groups), and participated in discussions both on structure and administration leading to the implementation of a final program.

In addition, Jon served as project manager for a management audit of customer service functions for PWD and the Water Revenue Bureau (WRB).



Specialties

- Utility cost-of-service & rate structure studies
- Development impact fee studies
- Affordability program development
- Long-range financial planning & feasibility studies
- Cost analysis & cost allocation

Professional History

- Raftelis: Senior Principal (2025-present); Executive Vice President (2019-2024); Vice President (2013-2018); Senior Manager (2009-2012); Manager (2005-2009); Senior Consultant (2000-2004)
- Lance, Incorporated: Director of Energy & Environment, Projects Manager, Financial Analyst (1992-2000)

Education

- Master of Business Administration - Queens College (1998)
- Bachelor of Science, Physics & Mathematics - Wake Forest University (1990)

Certifications

- Series 50 Municipal Advisor Representative

Professional Memberships

- AWWA: Virginia Section; Chesapeake Section; Pennsylvania Section; North Carolina Section
- WEF: Utility Management Committee; Utility Management Finance & Administration Subcommittee (Past Chair); Finance & Administration Subcommittee (Past Chair); Utility Management Conference Planning Committee (Past Chair); Technical Practices Committee (Chair)

DC Water (DC): Economic Development/Service Extension Policy

Jon currently serves as project manager for an ongoing engagement with DC Water. Raftelis is working under a long-term contract to provide financial planning and rate consulting services. As the first task order under the contract, Raftelis performed the 2009 cost-of-service study (COS study). The COS study included four major project deliverables: assure the sufficiency of projected revenue to cover projected expenditures; calculate cost-of-service-based rates and compare them to projected rates; review miscellaneous fees and charges; and, recommend rate structure alternatives that enhance priority pricing objectives of DC Water. Raftelis worked closely with DC Water staff over a compressed project timeframe beginning in July, 2009. Results of the COS study, along with a comprehensive report and revenue sufficiency/cost-of-service model, were presented to the Retail Rates Committee of the Board on September 24, 2009. Raftelis will continue to develop rate structure options based on the recommendations in the study.

Columbus Water Works (GA): Cost-of-service Rate Study, Financial Planning, and Procurement Feasibility

Jon has served as project manager on a multi-phase project with Columbus Water Works (CWW) involving a financial management systems evaluation, cost-of-service analysis, block rate design, contract rate analysis, and financial reporting system review. The project goal was development and implementation of equitable yet understandable cost-based rate structures for both inside city and contract customers. The task was complicated by the recent departure of several large contract and wholesale customers and major looming capital needs. The study used a 5- to 10-year planning horizon that incorporated long-term capital planning needs, debt funding assumptions, operating cost projections, and demand projections. The Water Works Board voted on and agreed to the five-year program as recommended by Raftelis and CWW staff.

City of Baltimore (MD): Cost-of-service Rate Study, Financial Planning, Interjurisdictional Contract Negotiation Support, Stormwater Utility Implementation, and Organizational Optimization

Jon serves as project manager on a multi-year cost-of-service, rate, and financial consulting contract for the City of Baltimore (City). As part of the contract, Raftelis is performing cost-of-service and rate design studies for the water and wastewater utilities. The contract also calls for assistance with long-term fiscal planning and development of financial plans for utility capital programs. Since the City provides wholesale and retail utility service for surrounding counties, the engagement includes inter-jurisdictional contract negotiation support and rate setting. Jon is responsible for project administrative functions such as invoicing and sub-consultant coordination over the term of the engagement.

Washington Suburban Sanitary Commission (MD): Financial Services and Development/Impact Fee Study

Jon served as project manager on an engagement with Washington Suburban Sanitary Commission (WSSC) in Laurel, Maryland. WSSC is looking at alternatives to fund infrastructure renewal and AMR/AMI. The Raftelis Team is identifying and evaluating revenue enhancement opportunities to help fund approximately \$2.1 billion in incremental capital projects over the next 10 years. As part of our assistance, the Raftelis Team is helping to build the business case for monthly customer billing facilitated by AMR/AMI. WSSC has looked into automated meter reading for at least 12 years but has run into challenges with cost justification; their system contains over 440,000 customer accounts and almost 1,000 square miles. The Raftelis Team, led by Jon, will help to justify the investment in AMR/AMI through placing a value on its intangible benefits: more frequent pricing communication with customers, reduced delinquency, and reduced unaccounted for water.

City of San Diego Metro Wastewater Department (CA)

Jon served as lead consultant for a sewer cost-of-service and rate design study for the City of San Diego (City) Metro Wastewater Department. The study was conducted with extensive stakeholder group involvement and included a

comprehensive review of the City's revenue requirements and allocation methodology, review of the City's user classification, an analysis of cost-of-service and rate design for City users. Rate design included evaluation of rate structure alternatives with emphasis on incorporating a uniform monthly base fee in conjunction with volume rates. The study also included a review of the City's capacity charges.

Charlotte-Mecklenburg Utilities (NC): Conservation Pricing, Reclaimed Water Program Feasibility, and Billing and Collections Costs Analysis and Allocation Study

Jon has assisted on several financial services engagements for Charlotte-Mecklenburg Utilities (Utilities). Originally, Raftelis assisted Utilities in developing a water financial planning and rate model and related user manual. The rate model has been used to update rates and assist with Utilities' financial planning. Since the original model development, Raftelis has provided assistance in updating and refining the rate model. In addition, Jon and Raftelis have provided assistance in conservation-based rate development, industrial waste charge methodology, recycled water rate setting, managed competition, and utility billing system cost allocation. Raftelis is currently assisting Utilities in developing stronger conservation-based water rates, while trying to maintain revenue sufficiency and stability.

Richmond Department Public Utilities (VA)

Jon currently serves as project director for our engagement with the Richmond Department Public Utilities (DPU). Raftelis is developing a financial planning model that incorporates all utility systems: water, wastewater, natural gas, street lighting and stormwater. DPU will use the model to set rates in addition to determining financial condition.

City of Virginia Beach Department of Public Utilities (VA): Customer Billing Feasibility Study

Jon served as the project manager on an engagement looking into the feasibility of transitioning the Department of Public Utilities (DPU) from bi-monthly billing to monthly billing. DPU leadership was concerned that non-utility fees added to the utility bill would incite a public outcry for monthly billing. DPU wanted to be prepared to address this with two scenarios: an analysis of the most expedient method to enact monthly billing in the short term; and an analysis of the most efficient method to enact monthly billing in the long term. The Raftelis project team examined customer service functions related to monthly billing including meter reading, customer information systems, collections, and account management. These functions were split between the Operations Division, which handled field activities, and the Business Division, which handled customer account maintenance and call center operations. As a result of this project, DPU was able to identify both short-term and long-term approaches to meet its monthly billing transition.

York County (SC): Countywide Study for Evaluation of Water and Sewer Alternatives

Jon served as project director on a wheeling rate study for York County, South Carolina (County). The County engaged Raftelis to calculate a wholesale or bulk rate for water purchased by the City of York and Tega Cay from the City of Rock Hill to be delivered through the County transmission system. The study involved developing a cost allocation methodology and associated rate for delivering water through the County system that considered alternative options for the assessment of capital costs.

City of Buffalo (NY): Cost-of-service water rate study

Jon served as project manager for a comprehensive cost-of-service and rate study for the Buffalo Water Board (Board). The Board's primary pricing objectives were revenue sufficiency and equitable cost recovery from all customer classes. To achieve these objectives, Raftelis performed a cost-of-service study and developed two alternatives to the existing three-block, declining block rate structure. The results of the cost-of-service study indicated that the discount being realized by large volume customers was not cost justified and that only a minor

portion of consumption was within the middle rate block. Raftelis recommended a phased approach to bringing the discount for consumption in the third rate block closer to a cost justified level and phasing out the middle rate block. Both the Board and the City's Common Council unanimously approved Raftelis' recommendations.

PUBLICATIONS

- *Financing and Charges for Wastewater Systems – WEF Manual of Practice No. 27, Fourth Edition, 2018*
- *Water and Wastewater Financing and Pricing – The Changing Landscape, Fourth Edition, CRC Press, 2014*
- “Is Our Water Affordable?” *AWWA Journal*, 2014

Henrietta Locklear MPA

PROJECT MANAGER

Senior Vice President & Practice Lead of Stormwater Management Consulting



PROFILE

Henrietta has 20 years of experience in local government finance and stormwater management. She specializes in working with local government staff, stakeholders, and elected officials to identify solutions and implement programs to meet environmental and public health challenges. Henrietta is experienced in governmental financial analysis and planning, particularly in stormwater utility implementation and rate studies. She is also experienced in all aspects of utility implementation, with particular focus on policy analysis and development, and data and billing system implementation. Henrietta has worked with more than 50 local governments on stormwater funding analyses, fee feasibility, or implementation projects and has served as project manager for more than 20 stormwater utility fee implementation projects. She was a member of the working group that developed the certification test for American Public Works Association's (APWA) Stormwater Manager Certification. She was also a reviewer for the Water Environment Federation's Special Publication entitled, *User-Fee-Funded Stormwater Programs*, 2nd Edition. In addition, Henrietta co-authored two chapters in the industry guidebook *Water and Wastewater Finance and Pricing: The Changing Landscape*, which are entitled, "Public Outreach and Gaining Stakeholder Commitment" and "Expanding Financing and Pricing Concepts into Stormwater." Henrietta has a wealth of experience with public input processes. On a variety of projects, she has developed and facilitated public stakeholder processes, outreach strategies, and education campaigns for programs ranging from stormwater utilities and National Pollutant Discharge Elimination System (NPDES) compliance efforts to brownfields, on-site wastewater, and hazard mitigation programs. She convened Raftelis' Affordability Community of Practice, a group of firm professionals focusing on thought leadership in the affordability arena. She is a Municipal Advisor Representative, having passed the Series 50 exam.

KEY PROJECT EXPERIENCE

Philadelphia Water Department (PA): Affordability Analysis and Customer Assistance Program Implementation and Support, and Management Study and Rate Case Support

Henrietta manages several efforts for Raftelis' engagements with Philadelphia Water Department (City). These include the development of the City's affordability program and a management study of the utility's meter-to-cash operation and annual reporting efforts to support the department's financial planning and cost-of-service studies. For the management audit, she oversaw the review of customer service and billing

Specialties

- Stormwater program planning & development
- Stormwater finance & utility development
- Stormwater rate structure analysis & cost allocation
- Affordability program analysis, development & implementation
- Billing & information systems
- Meter technology modernization (AMI/AMR)
- Public involvement & stakeholder facilitation
- Management policy & practice
- Technical writing
- Business process development & improvement
- Data & systems integration
- Database architecture & analysis

Professional History

- Raftelis: Senior Vice President and Practice Lead of Stormwater Management Consulting (2025-present); Vice President (2019-2025); Director of Stormwater Management Consulting (2021-2025); Senior Manager (2015-2018); Manager (2013-2014); Senior Consultant (2011-2012)
- AMEC Morrisville, NC: Team Leader/Project manager (2009-2011)
- AMEC Raleigh, NC: Supervisor/Project manager (2008-2009); project manager (2006-2008)
- AMEC Nashville, TN: Public Affairs Coordinator (2004-2006)
- Wake County Government: Planning Technician (2003-2004); Intern (2003)
- School of Government, University of North Carolina at Chapel Hill: Research Assistant (2004)

Education

- Master of Public Administration - University of North Carolina at Chapel Hill (2004); Deil S. Wright Award for Outstanding Capstone Paper
- Bachelor of Arts in Political Science - University of North Carolina at Chapel Hill (2002); Phi Beta Kappa; Order of the Golden Fleece

Certifications

- Series 50 Municipal Advisor Representative

Professional Memberships

- WEF
- US Water Alliance (One Water Council)

processes as well as a detailed analysis of the utility's billing system. She is also assistant project manager for Raftelis' multi-year engagement with the Department to provide financial consulting services. Henrietta has led the development of the City's affordability program, the Tiered Assistance Program, which launched July 1, 2017.

Philadelphia Water Department (PA): Stormwater Rate Structure Analysis and Credits Study

Henrietta served as project key lead for a study assessing potential changes to Philadelphia Water Department's (PWD) stormwater fee rate structure, credits regulations, and green infrastructure incentives. The project involved a detailed assessment of the Department's then current rate structure and program, a national credit and incentives study of comparable utilities, as well as an intensive stakeholder input process. Henrietta led the national credits study and coordinated the stakeholder process, including policy development and assessment. Henrietta also oversaw data analysis inputs into the stakeholder process.

City of Spring Hill (TN): Stormwater Rate Study

In 2022, Raftelis was engaged to perform financial planning and rate studies for the City of Spring Hill's (City) stormwater, water, sewer, and sanitation services. Henrietta led the stormwater study, which included a comprehensive program assessment, determination of level of service, development of a five-year financial plan, cost-of-service analysis, and a rate study report. This involved detailed analysis of the City's equivalent residential unit, units of service, and the development of options for stormwater fee rate structure changes. Raftelis provided the City a recommended rate plan and financial plan model.

City of Memphis (TN) – Solid Waste Financial Plan and Rate Study

Raftelis was engaged by the City in 2016 to develop a financial plan and options for service delivery enhancements to its bulk waste (outside the cart trash) pick up program. Raftelis developed a financial plan model and assisted the City with the consideration of service level agreement options and rates to support the program. Raftelis has continued to be engaged by the City and has assisted with a study of rate structure modifications, consideration of further service level agreement changes and options for in-house versus outsourced delivery, and supported the City through financial plan updates that were necessary because of outsourced contract changes, disaster costs, and personnel changes. For FY2022, Raftelis began serving as budget analysis tracking and support with an updated model and dashboard that provide at-a-glance health reports on the solid waste fund. In FY2023, Raftelis will continue in that role and has provided specialized analysis and support on potential service level changes. Henrietta is the project manager for the effort and oversees Raftelis staff and subcontractor support.

Hamilton County (OH): Stormwater Fee Feasibility Study and Rate Structure Modification Support

Raftelis was engaged by Hamilton County (County) to support in the analysis, creation, and possible implementation of a County-wide impervious surface fee, while mitigating the impacts to customers already paying stormwater fees to various municipal agencies. The effort has evolved as MSD of Greater Cincinnati has developed a feasibility study for implementing a wet weather charge, realigning its rate structure. The engagement has included work with convened agency and community stakeholders, one on one engagement with agency staff, data acquisition and data development to assess customer impacts and other tasks. Henrietta has managed the effort.

Rockdale County (GA): Stormwater Financial Plan and Rate Study, Rate Structure Analysis, Feasibility Study

Rockdale County (County) has engaged Raftelis to support its stormwater program the past several years on a series of projects. Henrietta has led and managed the engagements. The initial project included developing a financial plan, analyzing the rate structure and rates (which had not been altered since the utility's creation), and developing a plan for implementing a new structure, new rates, and converting the billing method from a standalone to a tax billing method. To support the County's first stormwater revenue bond issue, Raftelis was engaged to develop a

Feasibility Study for a proposed Stormwater Revenue Bond to fund needed capital projects. The engagement included an update to the financial model to project future cost requirements and income to project the County's anticipated debt service coverage as well as deliverable of a written report and tables to be included in the County's official statement. Following on the support work, Raftelis has continued to serve the County, with a digitizing effort for all single family properties in the County to support its next rate structure change, a FY2023 update to the financial plan, a new rate study, and continued support for complex parcel cases where past billing amounts are being updated by the County to billings based on new parcel lines and impervious area.

Arlington County (VA): Stormwater Feasibility Study, Implementation Study

Raftelis is engaged by Arlington County (County) to conduct a multi-phase project for a stormwater utility feasibility study and stormwater utility implementation. The County was concerned about the distribution of financial burden among its customers and asked Raftelis to compare the impacts of existing Sanitary District Tax add-on, which serves as a dedicated source of funding for the County's stormwater program, with the impacts of the projected stormwater user fee. Raftelis conducted a benchmarking survey of regional peer utilities to provide a context of how stormwater programs are funded in the State of Virginia and the Mid-Atlantic. The team analyzed financial and policy information that shapes the County's existing stormwater program, including the organizational capacity for customer support and technical capacity to integrate the stormwater user fee into existing billing mechanisms. Raftelis also created a 10-year financial plan and dynamic rate model to support the feasibility study. The rates projected by the model took into account the County's operations and maintenance budget, capital improvement plan, anticipated debt service requirements as well as the impact of any new program elements, such as a stormwater user fee credit. The stormwater utility feasibility report for Phase 1 of the project described the program and its projected 10-year needs, discussed stormwater user fee rate structure components, presented the proposed user fee rates, and compared their impacts among different customer classes and geographic areas of the County in contrast to the current tax.

In Phase 2 of the project, the County is preparing to implement the stormwater utility. Henrietta served as project manager in Phase 1 and serves as project director in Phase 2.

Boston Water and Sewer Commission (MA): Stormwater Feasibility Study, Implementation Study

Raftelis was engaged by the Boston Water and Sewer Commission (Commission) to study the feasibility of developing a stormwater management fee and then to implement the fee. The feasibility engagement included developing a 30-year cost projection for the stormwater program, determination of optimal fund structure and billing mechanism, a study of comparable organizations' fee practices, analysis of and recommendations on rate structure, development of the draft rate base including consideration of the impacts of other large governmental entities in the service area, recommendations on a credit or incentive program, development of a public fee portal, assistance with public outreach and other support. Raftelis completed the feasibility study and, after a pandemic hiatus, is currently working with the Commission on implementation. Implementation includes providing guidance on processes, credit program, community engagement, a grant program, coordination with the City of Boston, and final data development and billing system implementation. The fee is anticipated to go-live in July 2023. Henrietta served as project manager for the feasibility and much of the implementation work and now serves as project director for the engagement.

Rantoul (IL): Stormwater Billing System Development

Raftelis was selected to develop a stormwater billing system for the Village of Rantoul. Henrietta was the project director for the engagement.

Boulder County (CO): Stormwater Feasibility Study, Implementation Study

Raftelis is engaged by Boulder County, CO as it evaluates the feasibility of establishing a stormwater utility and fee. With two engineering subconsultants, the team documented the current stormwater management program and gap analysis, and oversaw data development, financial planning and ratemaking. Raftelis assisted with internal and external communications and establishing policies and processes around billing and customer service. The project is on hold. Henrietta served as project director for the engagement.

City of Reno (NV): Stormwater Utility Fee Feasibility and Implementation

Raftelis was engaged by the City of Reno (City) to study the feasibility of developing a stormwater management utility and fee. As part of the project, Raftelis assessed the City's current and future desired level of service, development of a long-term financial model, developed stormwater utility administration costs, determined the proper unit of charge (Equivalent Residential Unit (ERU)), completed a units of service and rate structure analysis, assessed stormwater fee impacts on key customer segments, and compared stormwater rates and rate structures to other peer communities. Henrietta oversaw all aspects of the project, including the efforts to complete the rate base and rate structure analysis, peer community analysis and the development of presentation materials, report documentation, and recommendations. Henrietta is now managing the stormwater utility implementation, which includes refinement of the financial plan, selection of the rate structure, ordinance development, development of billing and customer service processes, and public outreach.

City of Treasure Island (FL): Stormwater Rate Study and Rate Structure Update

Raftelis is assisting the City with a stormwater rate and rate structure update, including an update to their equivalent residential unit (ERU), impervious area mapping and rate structure alternatives analysis. Henrietta oversees the stormwater team engaged in the work.

Capital Region Water (PA): Stormwater Funding Source Evaluation and Utility Implementation

Capital Region Water (CRW), the sewer and stormwater authority in Harrisburg, PA, engaged Raftelis to evaluate establishing a dedicated funding source for its stormwater regulatory requirements, following a financial capability assessment (FCA) of its regulatory costs. Raftelis conducted a feasibility study to determine program costs, and how to equitably recover costs from customers. Henrietta led the stormwater team which analyzed the customer base using GIS and assessor data to develop preliminary stormwater rates for CRW, developed stormwater billing policies with CRW staff, calculated stormwater fees for all customers, and worked with CRW staff to develop a public-facing stormwater fee finder map to prepare for public outreach and utility implementation. In addition, Henrietta worked closely with CRW staff to update fees for go-live billing, develop data maintenance processes and a data maintenance database with scripted tools.

City of Baltimore (MD): Stormwater Fee Implementation

Henrietta served as project lead for a complex and fast-paced project to implement a stormwater fee for the Bureau of Water and Wastewater with the City of Baltimore (City). She was the architect of the project approach covering all aspects of required elements for implementation and ensured the delivery of multiple key elements. One element was the credits program and Henrietta assisted staff with the credit program development including an innovative participation-based credit for residential customers. The City sent its first stormwater bills in October of 2013 and Henrietta has continued to assist the City with customer service, billing system and policy topics to the present.

Granville-Person Cooperative Stormwater Services (NC): Stormwater Utility Implementation

Henrietta served as project manager for the implementation of an innovative multi-jurisdictional utility in a group of jurisdictions affected by nutrient-sensitive waters rules. The three municipalities and two counties that make up the collaborative group differ in population, population density, land use/land cover, and current and planned level of

service provision. The project thus involved complex policy development around rate structure, organizational structure, and other issues. In addition, Henrietta served as the Stormwater Utility Services Manager for the group of jurisdictions to assist with coordination and regulatory compliance. Her duties included assisting the local governments with compliance for the Falls Watershed nutrient management strategy rules. She has served as the manager from 2013 to 2016. She now manages the staff that serve in that role and provides senior oversight of the project.

City of Charlotte (NC): Stormwater Program Assessment

In 2019, Raftelis was engaged by City of Charlotte (City) to assess the City's program including comparing the program with those of other utilities nationwide. Henrietta led the assessment, which included reviews of program policies and finance, including funding methodology. One focus of the assessment was on the City's Maintenance and Repair program which is the portion of the City's capital improvement program that resolves drainage complaints from citizens. The program has a large backlog of projects, and the City sought to analyze the program and the best solution to resolve the backlog, including potential level of service, policy and funding changes. As a part of the study, Raftelis performed analysis of debt funding options over 10-year and 20-year planning horizons as one option to increase investment to meet capital needs. Raftelis provided a broad assessment of the program's health, identified chief challenges for the future and recommended strategies to meet those challenges. Raftelis provided presentations to Council and to the program's citizen stakeholder committee on the study and results. The City followed that engagement with a strategic plan for the stormwater program. Then, in 2022, the City re-engaged Raftelis to guide City staff through a facilitated examination of the program's future state, and development of a vision for how the program may shift into asset management following a 5-year capital "surge" of projects to address a backlog of citizen-complaint driven capital needs.

Northeast Ohio Regional Sewer District (OH): Stormwater User Fee Implementation

Henrietta assisted in the Data Track of the project to develop a user fee to support Northeast Ohio Regional Sewer District's (NEORS) stormwater management program. Once implemented, the stormwater management program will serve 61 municipalities and two counties that are part of NEORS's service area. She developed policy documentation for the utility's data management. Henrietta also assisted in a variety of tasks to support the development of a user fee to support the NEORS's stormwater management program. She has performed policy analysis and documentation and data analysis to support program implementation and billing and data development. She also supervised additional documentation and analysis and peer reviewed project deliverables. As project manager, Henrietta has overseen project management for NEORS, reviewing charges, invoicing, and subcontractor invoicing in compliance with NEORS standard procedures. She managed both data development and data quality control tasks as supervisor of the data and policy analysts performing tasks such as parcel aggregation and database development.

Henrietta served as assistant project manager for the billing implementation phase of the project. In this capacity, she has led policy review and development and prepared and reviewed deliverables.

City of Charlotte and Mecklenburg County (NC): Stormwater Strategic Planning

Henrietta served as project manager for strategic planning in support of business process improvements for all business processes that relate to stormwater utility billing, collections, database maintenance, and customer service. The outcomes from this project supported improvements in the connectivity between the third-party billing vendor and the stormwater utility and among the departments serving stormwater customers. In addition, Henrietta served as project manager for the analysis of residential rate structures and crediting options for this well-established stormwater utility. She developed options and analyzed rate implications and pros and cons of various options. She also presented initial options to the Stormwater Advisory Committee (SWAC), responded to

comments, presented revised options to SWAC, and developed handout materials for SWAC and final report for staff.

City of Wilmington (NC): Stormwater Rate Study

As project manager for a rate study of a 10-year-old stormwater utility in eastern North Carolina, Henrietta developed a program cost-of-service for the seven-year analysis period as well as a rate model and performed rate modeling. Issues considered in the cost-of-service projections and rate model included uncertainties in costs related to regulatory compliance and landfill fee. The utility funds an aggressive capital improvements program and all modeling was performed in compliance with the City of Wilmington's conservative cash management principals and with existing revenue bond covenants. Henrietta drafted the cost-of-service report and rate study report.

Metro Water Services of Nashville and Davidson County (TN): Billing Data Analyses, Stormwater Rate Structure Alternatives

Henrietta has led several analyses for Metro, including billing data analyses related to a sewer rate structure change and, most recently, stormwater rate structure alternatives analysis in 2020.

From 2004 to 2006, Henrietta worked with Metro extensively, including managing the development of the City's stormwater management manual included drafting manual revision language and BMP designs and communicating with client and stakeholders on responses to revisions. Train staff and assist Metro Water Services of Nashville and Davidson County with training for development community on new manual. She assisted with Phase I of revisions including facilitation of staff technical review and public stakeholder groups for Metro Water Services, Stormwater Division. Responsibilities included developing policy options for discussion, review, and modification or adoption by stakeholder groups; coordination of group meetings including distribution of meeting materials, facilitating communication among group members, and fielding and addressing group member concerns; addressing policy concerns from multiple agencies including Metro Planning, Public Works, Public Health, Legal and state environmental agencies. In addition, Henrietta revised the stormwater management manual based on stakeholder and staff process.

PUBLICATIONS

- "Trackin' Mud: Keeping an Eye on the Construction General Permit," Current Issues in Stormwater Regulation. Lorman Educational Services, 2011
- "Washington State Decision Makes LID Mandatory," Stormwater Magazine, 2009, <http://www.stormh2o.com/july-august-2009/washington-state-decision.aspx>
- "Mind the Gap: The National Water Infrastructure Gap and the Local Stormwater Manager," Stormwater Magazine, 2007
- "National Policy, Local Innovation: Clean Water State Revolving Funds at 20 Years," Stormwater Magazine, 2007
- "Preparing for Everyday Threats: A New Landscape in Stormwater Infrastructure Security," Stormwater Magazine, 2007
- "What's all the fuss? News and Views on EPA's Proposed Water Transfer Rule," Stormwater Magazine, 2007
- "Successful Implementation of Riparian Buffer Programs," Stormwater Magazine, 2006
- "Municipal Stormwater System Maintenance: An Assessment of Current Practices and Methodology for Upgrading Programs," Stormwater Magazine, 2005

Jennifer Tavantzis

PROJECT DIRECTOR

Vice President & Director of Stormwater Management Consulting



PROFILE

Jennifer has a strong background in water resources and utility management and possesses extensive data management and analytical skills. Her educational background lies in the areas of water quality, hydrology, and resource conservation. In her ten years with Raftelis, she has consulted with numerous local governments on projects related to stormwater program development and review, and stormwater utility feasibility, development, implementation, and reorganization studies. Jennifer has also worked with water and sewer utilities on a wide variety of projects - from rate development and affordability analysis to revenue loss investigations - all with the common thread of being driven by existing utility data and designed to positively impact utility performance and management. Jennifer has worked extensively with GIS data and systems and with relational databases in association with water, wastewater, and stormwater utility projects. In addition to her analytical work, she has a strong knowledge of municipal finance, and serves as a Municipal Advisor Representative, which ensures her fiduciary responsibility to clients. Jennifer was also a contributing editor of the WEF's *Manual of Practice No. 27: Financing and Charges for Wastewater Systems*.

KEY PROJECT EXPERIENCE

City of Philadelphia (PA): Water Department Management Assessment, Customer Assistance Program Implementation

Based on an intimate knowledge of the City's utility billing system and related practices and policies from a prior management audit, Raftelis was further engaged in 2016 to develop and implement a cutting-edge affordability program consistent with direction from a recent rate case and a recently passed legislation out of City Council. Jennifer was involved in the Tiered Assistance Program (or TAP) from the outset, playing a significant role in development of program requirements and facilitation of policy and process design. She trained customer service staff on the new program, including program features, but also new software, processes, and procedures put in place to support it. Early on, Jennifer oversaw much of the reporting developed to track key program metrics and drive program administration, and she continues to manage program reporting, well into the eighth year of the program being live. Jennifer has recently led efforts to document program challenges and successes at the five-year mark, which included extensive benchmarking of peer or geographically relevant assistance programs and recommendations to be leveraged in strategic planning efforts that are anticipated in the near future. In addition to work with TAP, Jennifer continues to oversee annual financial reporting (based on full copies of the billing system), to support financial planning efforts.

Arlington County (VA): Stormwater Utility Feasibility Study and Implementation

Raftelis has long served as Arlington County's water and sewer utility rate advisor. In 2019, the County also asked Raftelis to evaluate the feasibility of funding their stormwater program through a user fee (more closely aligned with properties' impacts on the drainage system and program) instead of the existing tax rate. Jennifer played an integral role in the analysis, presentation of results to staff and leadership, and development of rate structure and rate recommendations. Key to this analysis was detailed consideration of the impacts owners and tenants of different

Specialties

- Stormwater finance & utility development
- Management policy & practice
- Utility rate studies
- Stakeholder engagement
- Organizational assessments

Professional History

- Raftelis: Vice President (2024-present); Senior Manager (2022-2023); Manager (2018-2021); Senior Consultant (2016-2017); Consultant (2013-2016); Associate Consultant (2012-2013)
- Colorado Department of Public Health & Environment (2011-2012)

Education

- Master of Environmental Management - Duke University (2011)
- Bachelor of Arts in Environmental Studies & Urban Planning - University of Richmond (2009)

Certifications

- Series 50 Municipal Advisor Representative

styles of residential properties throughout the County. At present, the County implementing the fee. Jennifer is overseeing aspects of the project, including data maintenance software development, financial modeling, and process development.

City of Manor (TX): Stormwater Utility Feasibility Study and Implementation

The City of Manor (City) has relied on Raftelis for water and sewer financial planning efforts, and recently engaged Raftelis in a stormwater fee feasibility study to assess the financial needs of its growing stormwater program and evaluating the feasibility of a fee as the most appropriate funding mechanism. Jennifer serves as project manager for this effort. To date, she has coordinated and overseen a comprehensive review of all current operating and capital costs, specifically identifying and quantifying costs related to existing stormwater program elements, which primarily rate to MS4 compliance. She has facilitated meetings with City staff in which a future desired program and level of service was established. Jennifer serves as subject matter expert and is overseeing development of a flexible financial planning and rate model that will allow the City to consider different stormwater rate structures. Customer impacts, as shown in the model, will inform next steps toward outreach and possible fee implementation.

City of Raleigh (NC): Stormwater Utility Financial Planning

Raftelis was engaged by the City of Raleigh to provide financial planning and modeling support for the City's stormwater utility. Jennifer oversaw model development and helped the City successfully transition to using the new model for internal financial planning and budgeting purposes. Raftelis worked with Stormwater program staff to begin planning for revenue bond issuance within 10 years and modeled multiple capital funding scenarios within the financial model to support the debt funding approach. Jennifer and the Raftelis team are currently reviewing the City's credit program, reviewing and supporting efforts to operationalize equity, and continuing to support the stormwater program with strategic communication, financial model updates, and other activities.

Pittsburgh Water and Sewer Authority (PA): Stormwater Utility Implementation and Program Support

Pittsburgh Water and Sewer Authority (PWSA) engaged Raftelis to provide a broad set of services related to water, sewer, and stormwater financial planning, ratemaking, and support for PUC proceedings. As part of this set of services, Raftelis assisted PWSA with all aspects of stormwater utility implementation, including development of a stormwater billing information management software, impervious area data and parcel-to-account relationships, billing policies and processes, credit program, customer outreach materials and website content. Jennifer played a critical role in all these areas. She also served as the primary trainer to customer service, engineering, and management staff on stormwater utility implementation, data maintenance, and use of the new software tool. Trainings were so well received that she and her team have been invited to provide more trainings as part of PWSA's recent CIS conversion project. Jennifer continues to support PWSA with stormwater utility administration when needed. She is also supporting PWSA in the upcoming PUC proceedings.

City of Greeley (CO): Stormwater Billing Data and Data Maintenance Process Audit

The City of Greeley (City) engaged Raftelis to conduct an audit of its stormwater billing data, to supplement ongoing water, sewer, and stormwater ratemaking and financial planning. Jennifer served as a subject matter expert, advising the project team in analyses, recommendations, and next steps. Based on our audit, the City has a framework for reviewing and adjusting, where appropriate, stormwater fee inputs, and is implementing a new set of processes to manage and maintain data related to stormwater billing.

City of Fayetteville (NC): Stormwater Program Evaluation, Ordinance and Administrative Manual Update

The City of Fayetteville's stormwater program is ever-evolving to meet the needs of the community's tremendous growth over the last few decades. While growth has provided noticeable benefit for the City and its residents, it has

also provoked greater focus on the City's stormwater program. The City engaged Raftelis to review and update its stormwater ordinance and its administrative manual, to ensure consistency between the two governing documents and appropriateness of content within each. Jennifer oversaw this effort, which included:

- Reviewing the ordinance and administrative manual and editing for consistency;
- Reorganizing content to ensure the ordinance lays out the broad legal framework and the administrative manual includes appropriate technical details and specifications;
- Specifying enforcement mechanisms and procedures; and,
- Providing guidance on strategies for stormwater control measures.

This review included considerable stakeholder engagement (City staff and management, the Stormwater Advisory Board, and the City Council Stormwater Committee), and resulted in recommended revisions to the administrative manual and the stormwater ordinance.

City of Burlington (NC): Stormwater Utility Rate Structure Update

Jennifer currently serves as the project manager for a stormwater fee rate structure update project for the City of Burlington (City). Raftelis has partnered with WK Dickson to provide stormwater program planning and level of service review, and Jennifer is overseeing data and rate model development, communications and outreach, and general project management tasks. The effort began in early 2021, and rate structure alternatives are currently under review.

Western Intake Partnership (NC): Regional Water Supply Project Financial Analysis and Implementation Support

Jennifer served as an analyst of economic feasibility and financial impacts for a group of four jurisdictions, the Western Intake Partnership, as they plan for long-term water supply solutions. Each jurisdiction varies in its growth projections, near- and long-term needs for enhanced water supply, alternative water supply options, and customer base, and as such, the financial implications of embarking on a joint venture varied from one partner to the next. In the project's early stages, Jennifer and the Raftelis team built a model and facilitated data gathering and output review meetings to establish a project timeframe optimal for the partnership. As the group moved forward with the project on that timeframe, Raftelis was engaged again to facilitate decision-making around project and partnership governance as well as establishing a fair approach to capital project and ongoing operations funding. At this stage the decisions are being incorporated into interlocal agreements that will govern the next phase of project execution.

Town of Lexington (MA): Stormwater Utility Feasibility Study and Implementation

The Town of Lexington (Town) engaged Raftelis, in partnership with Tighe & Bond, to implement a stormwater enterprise fund and fee. The Town has been funding stormwater management through a valorem tax revenue. To date, the program has been fairly well funded, but a new, stable, and sufficient approach to funding is needed as the Town looks toward costly water quality requirements focused on phosphorus reduction in the coming years. Jennifer serves as the project manager for Raftelis' role – financial modeling, rate structure and rate analysis. Jennifer recently presented to the Town's Select Board, and the project is continuing to the next phase of refining billing policies and determining the technical details of implementation.

City of Durham (NC): Water and Sewer Rate Study, Stormwater Replacement Fund Policy Analysis

The City of Durham's development standards require that, in some circumstances, new development and redevelopment must include the installation of a Stormwater Control Measure (SCM), and contribute toward a Stormwater Replacement Fund, which was created as a means of ensuring financial guarantees are provided in perpetuity and that stormwater facilities around the City are able to be reconstructed or repaired after natural disasters or other catastrophic events. The City engaged Raftelis to evaluate the policies around fund contribution by projecting costs over time considering the vulnerability of Stormwater Control Mechanisms (SCMs) to extreme

weather events. Jennifer developed a comprehensive Monte Carlo simulation model to determine the optimal fund balance and recommend contribution policies for future development.

Town of Holly Springs (NC): Stormwater Utility Stormwater Rate Structure Analysis and Rate Study

Raftelis worked with Brown and Caldwell on a stormwater program level of service review and rate structure update in the Town of Holly Springs (Town). Prior to this project, the Town had a stormwater fee rate structure that had begun to diverge with the industry standard and was not generating revenue sufficient to fund its growing stormwater management program. Jennifer worked closely with project partners and City staff to document the costs of providing multiple levels of service for the program and assess the rate impact to existing ratepayers with several reasonable rate structure options. Jennifer presented the alternatives and offered recommendations to elected officials at a working retreat. She then led the implementation of the recommended rate structure and rates, working closely with Town utility billing staff, GIS staff, and others involved in data creation and maintenance. The rate structure was successfully updated in early 2021.

Northeast Ohio Regional Sewer District (OH): Stormwater Utility Development and Implementation

The Northeast Ohio Regional Sewer District (NEORS) in Cleveland, OH provides wastewater service to over 50 communities in the region. In early 2013 it began billing for stormwater service to the entire region as well. Raftelis worked with the District through every step of the stormwater utility design and implementation process. Jennifer developed policy documentation for the utility's data management, customer service, credit program, inspection and maintenance program, and billing. In addition, Jennifer assisted with GIS data analysis, billing database development, and project management. Jennifer continued to provide post go-live support for many years.

Upper Falls Watershed Multi-Jurisdictional Stormwater Utility (NC): Stormwater Utility Implementation, Stormwater Services Manager

Five jurisdictions in the Falls Lake Watershed of Central North Carolina (County) engaged Raftelis to address pressing stormwater management issues across the region through the implementation of a coordinated stormwater funding mechanism. Raftelis worked with the jurisdictions to create a rate structure that would most appropriately and feasibly fund the planned level of service provision. Raftelis worked with each jurisdiction to determine the current and future costs associated with stormwater services and to set rates. Raftelis also assisted the jurisdictions in coordinating service activities for maximum cost savings. Raftelis developed the utility billing data for each jurisdiction, assisted them with determining the best billing and collection method (County tax bill line item), and coordinated with the County tax offices to implement the billing methodology. Raftelis also worked with the jurisdictions to develop a credits policy, as well as assisting them with extensive public and elected board meeting support and customer service representative training. The project involved complex governance, service provision, rate structure, and billing policy issues. Jennifer was involved in many aspects of complex policy development around rate structure, organizational structure, customer outreach, and other issues, and currently serves as the Stormwater Utility Services Manager to the five jurisdictions.

Carlisle Borough (PA): Stormwater Utility Feasibility Study and Implementation

Raftelis was engaged by the Borough of Carlisle (Borough) to provide assistance in assessing the financial needs of its growing stormwater program and evaluating the feasibility of a fee as the most appropriate funding mechanism. Jennifer served as project manager during this successful effort. Jennifer coordinated and oversaw a comprehensive review of all operating and capital costs, specifically identifying and quantifying costs related to existing stormwater program elements, which at that time were primarily categorized as Streets-related costs. Jennifer was also the primary developer of a flexible financial planning and rate model. Subsequent to the feasibility study, Raftelis was engaged by the Borough to implement the stormwater fee based on implementation and data maintenance considerations and recommendations made during the feasibility phase. After a great deal of outreach led by Raftelis, the Borough implemented the new utility fee in 2019.

City of Vancouver (BC): Healthy Waters Plan Financial Modeling and Support

The City of Vancouver, BC is developing a large-scale, long-range approach to adapt and improve sewage and rainwater management in the City's five basins – the Healthy Waters Plan. As part of a complex team led by Brown & Caldwell, Raftelis is providing financial planning and support throughout the phases of the project, from establishing baseline conditions to providing key inputs to a multi-criteria decision analysis exercise, and ultimately to developing a long-term financial planning tool that will allow the City to track and plan for ongoing system operation and extensive upgrades to support compliance with regulatory requirements and adaptations necessitated by climate change. Jennifer is leading this effort for Raftelis, coordinating with the project team and working closely with the City's technical working group.

DRAFT

2025 TAP Reconcilable Rider Reports and Projection Model, December 2024 - New Data A

For: **Philadelphia Water Department**

By:  **RAFTELIS**

2025 TAP Reconcilable Rider Reports and Projection Model: Table of Contents

<u>Sheet Name</u>	<u>Description</u>
Table of Contents	List of each sheet in the workbook
TRR_Summary	Summary of assumptions and results by period of major variables requested of Raftelis
TRR_Projections	Results by month of major variables requested of Raftelis
Data Source	Description of data source for reports DR-1, DR-2, DR-3A Participants, and DR-4
DR_1	Water Monthly Retail Billed Volume
DR_2	Sewer Monthly Retail Billed Volume
DR_3A Participants	Monthly Number of TAP Participants
DR_4	Monthly Total TAP Discount Amount

<u>Assumptions used to develop the Results below</u>							
Assumption or scenario type	Scenario						
TAP Subscription Projection	Increasing	owing to continued prequalification and recertification change					
Monthly Cost per TAP Participant*	\$	54.62 and projected to be stable over time					
Monthly Consumption per TAP Participant*		679 CF and projected to be stable over time					
<i>*Per Participant Data (Most Recent Period - Actual Data)</i>							
			Average Monthly Number of TAP Participants	Total Number of TAP Participants	Total TAP Discount	Total TAP Water Consumption (CCF)	Total TAP Sewer Consumption (CCF)
Reconciled Period - Actual	April 2024 to	August 2024	57,181	285,904	\$ 12,091,024	1,822,972	1,821,213
Most Recent Period - Actual	September 2024 to	November 2024	58,665	175,994	\$ 9,612,362	1,194,592	1,193,529
Most Recent Period - Projected	December 2024 to	August 2025	59,757	537,811	\$ 29,373,940	3,650,494	3,650,494
Most Recent Period - Entire	September 2024 to	August 2025	59,484	713,805	\$ 38,986,303	4,845,086	4,844,023
Next Rate Period	September 2025 to	August 2026	60,827	729,929	\$ 39,866,915	4,954,526	4,954,526

2025 TAP Reconcilable Rider Reports and Projection Model: TRR_Projections

Data Type	Reconciled Period				
	Actual	Actual	Actual	Actual	Actual
Projected Increase in Participants					
Participants	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024
Total Participants	21,854	28,110	49,252	57,155	57,602
Discount	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024
Total Discounts	\$ 1,329,360.84	\$ 1,501,646.95	\$ 1,981,875.69	\$ 2,094,176.78	\$ 2,369,075.05
Water Consumption	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024
Total TAP Water Consumption (CCF)	159,196	191,298	295,659	326,158	364,303
Sewer Consumption	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024
Total TAP Sewer Consumption (CCF)	159,148	191,224	295,463	325,874	364,001

2025 TAP Reconcilable Rider Reports and Projection Model: TRR_Projections

	Most Recent Period				
Data Type	Actual	Actual	Actual	Actual	Actual
Projected Increase in Participants					
Participants	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024
Total Participants	54,185	58,344	58,618	59,305	60,225
Discount	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024
Total Discounts	\$ 2,351,694.42	\$ 2,540,192.99	\$ 2,735,884.80	\$ 3,197,292.01	\$ 3,410,473.89
Water Consumption	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024
Total TAP Water Consumption (CCF)	351,988	379,010	401,513	422,248	411,732
Sewer Consumption	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024
Total TAP Sewer Consumption (CCF)	351,660	378,585	401,093	421,902	411,356

2025 TAP Reconcilable Rider Reports and Projection Model: TRR_Projections

Data Type	Actual	Projected	Projected	Projected	Projected
Projected Increase in Participants		5.00%	1.00%	-5.00%	5.00%
Participants	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025
Total Participants	56,464	59,287	59,880	56,886	59,730
Discount	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025
Total Discounts	\$ 3,004,596.49	\$ 3,238,122.05	\$ 3,270,503.27	\$ 3,106,978.10	\$ 3,262,327.01
Water Consumption	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025
Total TAP Water Consumption (CCF)	360,612	402,423	406,447	386,125	405,431
Sewer Consumption	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025
Total TAP Sewer Consumption (CCF)	360,271	402,423	406,447	386,125	405,431

2025 TAP Reconcilable Rider Reports and Projection Model: TRR_Projections

Data Type	Projected	Projected	Projected	Projected	Projected
Projected Increase in Participants	1.00%	1.00%	-4.00%	4.00%	1.00%
Participants	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025
Total Participants	60,328	60,931	58,494	60,833	61,442
Discount	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025
Total Discounts	\$ 3,294,950.28	\$ 3,327,899.78	\$ 3,194,783.79	\$ 3,322,575.14	\$ 3,355,800.89
Water Consumption	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025
Total TAP Water Consumption (CCF)	409,485	413,580	397,037	412,918	417,048
Sewer Consumption	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025
Total TAP Sewer Consumption (CCF)	409,485	413,580	397,037	412,918	417,048

2025 TAP Reconcilable Rider Reports and Projection Model: TRR_Projections

	Next Rate Period					
Data Type	Projected	Projected	Projected	Projected	Projected	Projected
Projected Increase in Participants	-1.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Participants	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026
Total Participants	60,827	60,827	60,827	60,827	60,827	60,827
Discount	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026
Total Discounts	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88
Water Consumption	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026
Total TAP Water Consumption (CCF)	412,877	412,877	412,877	412,877	412,877	412,877
Sewer Consumption	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026
Total TAP Sewer Consumption (CCF)	412,877	412,877	412,877	412,877	412,877	412,877

2025 TAP Reconcilable Rider Reports and Projection Model: TRR_Projections

Data Type	Projected	Projected	Projected	Projected	Projected	Projected
Projected Increase in Participants	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Participants	Mar 2026	Apr 2026	May 2026	Jun 2026	Jul 2026	Aug 2026
Total Participants	60,827	60,827	60,827	60,827	60,827	60,827
Discount	Mar 2026	Apr 2026	May 2026	Jun 2026	Jul 2026	Aug 2026
Total Discounts	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88	\$3,322,242.88
Water Consumption	Mar 2026	Apr 2026	May 2026	Jun 2026	Jul 2026	Aug 2026
Total TAP Water Consumption (CCF)	412,877	412,877	412,877	412,877	412,877	412,877
Sewer Consumption	Mar 2026	Apr 2026	May 2026	Jun 2026	Jul 2026	Aug 2026
Total TAP Sewer Consumption (CCF)	412,877	412,877	412,877	412,877	412,877	412,877

2025 TAP Reconcilable Rider Reports and Projection Model: Data Source

Data in DR_1, DR_2, DR_3A Participants, and DR_4 are from reports run on a static copy of basis2 captured on 11/30/2024

Data acquired for months January 2021 through November 2024

2025 TAP Reconcilable Rider Reports and Projection Model: DR_1
 January 2024 - November 2024

DR-1: Water Billed Volume		2024	2024	2024	2024	2024
		1	2	3	4	5
Customer Group	Discount Group	January 2024 Water Billed Volume (CCF)	February 2024 Water Billed Volume (CCF)	March 2024 Water Billed Volume (CCF)	April 2024 Water Billed Volume (CCF)	May 2024 Water Billed Volume (CCF)
TAP	All Groups	159,196	191,298	295,659	326,158	364,303
Non-TAP	Senior Discount*	71,268	64,840	51,881	49,460	52,302
Non-TAP	PHA Discount	117,422	115,300	104,612	105,354	106,260
Non-TAP	Non-PHA Discount (Other discount)	144,056	157,402	146,486	143,711	170,509
Non-TAP	No Additional Discount	4,194,515	4,012,607	3,705,516	3,651,107	4,058,766
PWD (not subject to reconciliation)	PWD	249,868	209,281	195,178	187,379	338,702

Water Billed Volume Subtotals, by Customer Group		January 2024 Water Billed Volume (CCF)	February 2024 Water Billed Volume (CCF)	March 2024 Water Billed Volume (CCF)	April 2024 Water Billed Volume (CCF)	May 2024 Water Billed Volume (CCF)
Customer Group						
TAP		159,196	191,298	295,659	326,158	364,303
Non-TAP		4,527,261	4,350,149	4,008,495	3,949,632	4,387,837
PWD (not subject to reconciliation)		249,868	209,281	195,178	187,379	338,702

*Senior Citizen Discount figures represent only those Senior Citizen Discount customers not enrolled in TAP. Senior Citizen Discount customers enrolled in TAP are included in the TAP Customer Group.

2025 TAP Reconcilable Rider Reports and Projection Model: DR_1
 January 2024 - November 2024

DR-1: Water Billed Volume		2024	2024	2024	2024	2024
		6	7	8	9	10
Customer Group	Discount Group	June 2024 Water Billed Volume (CCF)	July 2024 Water Billed Volume (CCF)	August 2024 Water Billed Volume (CCF)	September 2024 Water Billed Volume (CCF)	October 2024 Water Billed Volume (CCF)
TAP	All Groups	351,988	379,010	401,513	422,248	411,732
Non-TAP	Senior Discount*	51,885	55,153	55,698	56,210	51,909
Non-TAP	PHA Discount	111,693	122,635	124,528	122,471	118,869
Non-TAP	Non-PHA Discount (Other discount)	173,174	208,645	208,439	204,335	188,325
Non-TAP	No Additional Discount	4,027,642	4,564,710	4,684,044	4,600,911	4,322,674
PWD (not subject to reconciliation)	PWD	105,040	211,508	220,240	261,753	342,304

Water Billed Volume Subtotals, by Customer Group		June 2024 Water Billed Volume (CCF)	July 2024 Water Billed Volume (CCF)	August 2024 Water Billed Volume (CCF)	September 2024 Water Billed Volume (CCF)	October 2024 Water Billed Volume (CCF)
Customer Group						
TAP		351,988	379,010	401,513	422,248	411,732
Non-TAP		4,364,394	4,951,143	5,072,709	4,983,927	4,681,777
PWD (not subject to reconciliation)		105,040	211,508	220,240	261,753	342,304

*Senior Citizen Discount figures represent only those Senior Citizen Discount customers not enrolled in TAP. Senior Citizen Discount customers enrolled in TAP are included in the TAP Customer Group.

2025 TAP Reconcilable Rider Reports and Projection Model: DR_1
 January 2024 - November 2024

DR-1: Water Billed Volume		2024
		11
Customer Group	Discount Group	November 2024 Water Billed Volume (CCF)
TAP	All Groups	360,612
Non-TAP	Senior Discount*	46,416
Non-TAP	PHA Discount	116,267
Non-TAP	Non-PHA Discount (Other discount)	180,009
Non-TAP	No Additional Discount	4,098,132
PWD (not subject to reconciliation)	PWD	151,605

Water Billed Volume Subtotals, by Customer Group		
Customer Group		November 2024 Water Billed Volume (CCF)
TAP		360,612
Non-TAP		4,440,824
PWD (not subject to reconciliation)		151,605

*Senior Citizen Discount figures represent only those Senior Citizen Discount customers not enrolled in TAP. Senior Citizen Discount customers enrolled in TAP are included in the TAP Customer Group.

DR-2: Sewer Billed Volume						
		2024	2024	2024	2024	2024
		1	2	3	4	5
Customer Group	Discount Group	January 2024 Sewer Billed Volume (CCF)	February 2024 Sewer Billed Volume (CCF)	March 2024 Sewer Billed Volume (CCF)	April 2024 Sewer Billed Volume	May 2024 Sewer Billed Volume (CCF)
TAP	All Groups	159,148	191,224	295,463	325,874	364,001
Non-TAP	Senior Discount*	71,206	64,782	51,847	49,425	52,263
Non-TAP	PHA Discount	117,422	115,300	104,612	105,353	106,252
Non-TAP	Non-PHA Discount (Other discount)	143,105	156,478	145,433	142,187	169,319
Non-TAP	No Additional Discount	3,876,473	3,830,983	3,511,335	3,449,190	3,806,890
PWD (not subject to reconciliation)	PWD	249,868	209,281	195,178	187,379	338,702

Sewer Billed Volume Subtotals, by Customer Group						
Customer Group		January 2024 Sewer Billed Volume (CCF)	February 2024 Sewer Billed Volume (CCF)	March 2024 Sewer Billed Volume (CCF)	April 2024 Sewer Billed Volume (CCF)	May 2024 Sewer Billed Volume (CCF)
TAP		159,148	191,224	295,463	325,874	364,001
Non-TAP		4,208,206	4,167,543	3,813,227	3,746,155	4,134,724
PWD (not subject to reconciliation)		249,868	209,281	195,178	187,379	338,702

*Senior Citizen Discount figures represent only those Senior Citizen Discount customers not enrolled in TAP. Senior Citizen Discount customers enrolled in TAP are included in the TAP Customer Group.

DR-2: Sewer Billed Volume						
		2024	2024	2024	2024	2024
		6	7	8	9	10
Customer Group	Discount Group	June 2024 Sewer Billed Volume	July 2024 Sewer Billed Volume (CCF)	August 2024 Sewer Billed	September 2024 Sewer Billed Volume	October 2024 Sewer Billed Volume
TAP	All Groups	351,660	378,585	401,093	421,902	411,356
Non-TAP	Senior Discount*	51,841	55,107	55,656	56,166	51,876
Non-TAP	PHA Discount	111,613	122,559	124,447	122,392	118,830
Non-TAP	Non-PHA Discount (Other discount)	172,332	206,709	206,657	203,046	184,100
Non-TAP	No Additional Discount	3,769,104	4,260,059	4,354,024	4,302,956	4,050,848
PWD (not subject to reconciliation)	PWD	105,040	211,508	220,240	261,753	342,304

Sewer Billed Volume Subtotals, by Customer Group						
Customer Group	June 2024 Sewer Billed Volume (CCF)	July 2024 Sewer Billed Volume (CCF)	August 2024 Sewer Billed Volume (CCF)	September 2024 Sewer Billed Volume (CCF)	October 2024 Sewer Billed Volume (CCF)	
TAP	351,660	378,585	401,093	421,902	411,356	
Non-TAP	4,104,890	4,644,434	4,740,784	4,684,560	4,405,654	
PWD (not subject to reconciliation)	105,040	211,508	220,240	261,753	342,304	

*Senior Citizen Discount figures represent only those Senior Citizen Discount customers not enrolled in TAP. Senior Citizen Discount customers enrolled in TAP are included in the TAP Customer Group.

DR-2: Sewer Billed Volume		
		2024
		11
Customer Group	Discount Group	November 2024 Sewer Billed Volume
TAP	All Groups	360,271
Non-TAP	Senior Discount*	46,373
Non-TAP	PHA Discount	116,229
Non-TAP	Non-PHA Discount (Other discount)	178,932
Non-TAP	No Additional Discount	3,863,391
PWD (not subject to reconciliation)	PWD	151,605

Sewer Billed Volume Subtotals, by Customer Group		
Customer Group		November 2024 Sewer Billed Volume (CCF)
TAP		360,271
Non-TAP		4,204,925
PWD (not subject to reconciliation)		151,605

*Senior Citizen Discount figures represent only those Senior Citizen Discount customers not enrolled in TAP. Senior Citizen Discount customers enrolled in TAP are included in the TAP Customer Group.

2025 TAP Reconcilable Rider Reports and Projection Model: DR_3A Participants
 January 2024 - November 2024

DR-3A: TAP Participants									
	2024	2024	2024	2024	2024	2024	2024	2024	2024
	1	2	3	4	5	6	7	8	9
	January 2024	February 2024	March 2024	April 2024	May 2024	June 2024	July 2024	August 2024	September 2024
Customer Type	Participants	Participants	Participants	Participants	Participants	Participants	Participants	Participants	Participants
Senior Discount*	5,877	6,639	8,654	9,021	9,122	8,609	9,252	9,315	9,325
PHA	-	-	-	-	-	-	-	-	-
Non-PHA	-	-	-	-	-	-	-	-	-
No Discount	15,977	21,471	40,598	48,134	48,480	45,576	49,092	49,303	49,980
All	21,854	28,110	49,252	57,155	57,602	54,185	58,344	58,618	59,305

2025 TAP Reconcilable Rider Reports and Projection Model: DR_3A Participants
 January 2024 - November 2024

DR-3A: TAP Participants		
	2024	2024
	10	11
	October 2024	November 2024
Customer Type	Participants	Participants
Senior Discount*	9,424	8,882
PHA	-	-
Non-PHA	-	-
No Discount	50,801	47,582
All	60,225	56,464

2025 TAP Reconcilable Rider Reports and Projection Model: DR_4
 January 2024 - November 2024

DR-4: TAP Discount	2024	2024	2024	2024	2024	2024	2024
	1	2	3	4	5	6	7
Customer Type	January 2024 Discount	February 2024 Discount	March 2024 Discount	April 2024 Discount	May 2024 Discount	June 2024 Discount	July 2024 Discount
Senior Discount	\$ 224,871.49	\$ 232,756.22	\$ 243,639.21	\$ 238,737.12	\$ 250,062.63	\$ 244,176.34	\$ 270,800.78
PHA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-PHA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
No Discount	\$ 1,104,489.35	\$ 1,268,890.73	\$ 1,738,236.48	\$ 1,855,439.66	\$ 2,119,012.42	\$ 2,107,518.08	\$ 2,269,392.21
All	\$ 1,329,360.84	\$ 1,501,646.95	\$ 1,981,875.69	\$ 2,094,176.78	\$ 2,369,075.05	\$ 2,351,694.42	\$ 2,540,192.99

2025 TAP Reconcilable Rider Reports and Projection Model: DR_4
 January 2024 - November 2024

DR-4: TAP Discount	2024	2024	2024	2024
	8	9	10	11
Customer Type	August 2024 Discount	September 2024 Discount	October 2024 Discount	November 2024 Discount
Senior Discount	\$ 309,120.21	\$ 344,167.09	\$ 359,301.20	\$ 307,957.53
PHA	\$ -	\$ -	\$ -	\$ -
Non-PHA	\$ -	\$ -	\$ -	\$ -
No Discount	\$ 2,426,764.59	\$ 2,853,124.92	\$ 3,051,172.69	\$ 2,696,638.96
All	\$ 2,735,884.80	\$ 3,197,292.01	\$ 3,410,473.89	\$ 3,004,596.49

Effective: September 1, 2025

PHILADELPHIA WATER DEPARTMENT

RATES AND CHARGES

Effective: September 1, 2025.

1.0 DEFINITIONS.

(a) **Condominium Properties:** Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership by the owners of those portions. Real estate is not a condominium unless the undivided interests in the common elements are vested in the unit owners.

(b) **Customer:** An owner, Tenant or occupant who by operation of law or agreement is responsible for payment of the charges for water/sewer/stormwater service at a Residential, Non-residential or Condominium Property.

(c) **Department:** The Philadelphia Water Department is the operating department of the City of Philadelphia with the duties, powers and obligations set forth in the Home Rule Charter and the Philadelphia Code.

(d) **Dwelling Unit:** A single unit within a building providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

(e) **Home Rule Charter:** The Philadelphia Home Rule Charter, as codified in Pennsylvania First Class City Home Rule Act, April 21, 1949 P.L. 665, 351 Pa. Code §1-100 et seq.

(f) **Mcf:** Thousand cubic feet. The quantity charges in Sections 2, 3, 9 and 10 are expressed in Mcf.

1 Mcf = 1,000 cubic feet = 7,480 gallons

(g) **Municipal Stormwater System:** City owned and maintained real property, infrastructure or natural feature used and/or constructed for purposes of transporting, conveying, retaining, detaining, or discharging stormwater runoff.

(h) **Non-residential Property:** Real estate which cannot be classified as either Residential or Condominium. Real estate used exclusively as a cemetery shall not be considered Non-residential property.

(i) **Philadelphia Code:** The body of laws and regulations enacted by the Philadelphia City Council.

(j) Philadelphia Department of Records: An operating department of the City of Philadelphia with the duties, powers and obligations set forth in the Home Rule Charter and the Philadelphia Code.

(k) Property: Any parcel of real estate identified in the records of the Philadelphia Department of Records.

(l) Property Owner: The owner of the particular parcel of real estate identified in the records of the Philadelphia Department of Records, or the grantee in a land transfer of record.

(m) Residential Property: Real estate used exclusively for residential purposes with at least one and no more than four Dwelling Units and which cannot be classified as Condominium Property. Property adjacent to Residential Property owned and utilized exclusively by the Residential Property owner for residential uses. Upon proof submitted to the Department, said properties shall be deemed by the Department to form one Residential parcel comprised of the Property and the Residential Property.

(n) Stormwater Management Practice (SMP): Any man-made structure that is designed and constructed to detain, infiltrate, or otherwise control stormwater runoff quality, rate, or quantity.

(o) Surface Discharge: The discharge of stormwater runoff from a property to an adjacent surface water body, without the use of City infrastructure.

(p) Undeveloped Property: Property classified by the Board of Revision of Taxes as SB, SC, SI, SR, or SS; Undeveloped refers to the status of the property as having no structures and is not related to whether the property has ever been developed.

(q) Water Commissioner: The Water Commissioner of the City of Philadelphia who performs the duties and obligations as set forth in the Philadelphia Home Rule Charter and the Philadelphia Code.

(r) Utility Plan: A plan that shows water, sewer, and/or stormwater connections and sizes, utility locations, and impacts to rights-of-way, the approval of which is required under the Administrative Code Section A-305.2.1.6.

1.1 Conformity with Existing Law.

Nothing contained herein shall be deemed to overrule or annul any existing provisions of the Home Rule Charter or the Philadelphia Code.

1.2 Severability.

If any provision, paragraph, word or sections herein is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words and sections shall not be affected and shall continue in full force and effect.

2.0 WATER CHARGES

Charges for water service supplied by the City of Philadelphia shall be effective on September 1, 2025, as follows:

2.1 General Customers.

Charges for the supplying of water shall be determined and billed as follows:

(a) Charges and billing in general.

(1) Water charges shall consist of a service charge and quantity charge.

(2) A service charge shall be billed monthly.

(3) As set forth in Section 2.1(b), the type and size of the meter shall determine the service charge.

(4) In addition, there shall be a quantity charge as provided herein for water used in a monthly billing cycle, either as metered or as estimated.

(5) Quantity charges shall be billed for monthly cycles as provided herein. The cycle shall be the period between the dates of scheduled metered readings, actual or estimated.

(b) Monthly service charges.

(1) Effective September 1, 2025 and thereafter, the monthly service charge for the various types and sizes of meters shall be as follows:

<u>Size</u>	<u>Code</u>	<u>Charge</u>
5/8	R	\$6.08
3/4	Z	7.06
1	Q	9.42
1 -1/2	P	14.73
2	X	21.85
3	O	37.62
4	W	65.44
6	N	126.77
8	V	197.89
10	E	287.04
12	T	503.58

Residential Fire Sprinkler System Meters

<u>Size</u>	<u>Code</u>	<u>Charge</u>
3/4	Z	12.33
1	Q	14.69
1 -1/2	P	20.00
2	X	27.12

(c) Quantity charges

In addition to the service charge, the quantity charge portion of each bill is determined by applying the quantity charge set forth below to all water use. In addition, the quantity charge will also include a Tiered Assistance Program (TAP) Rate Rider Surcharge, as set forth in Section 10.

(1) Effective September 1, 2025 and thereafter, the quantity charge portion of each bill shall be as follows:

1 Mcf = 1,000 cubic feet = 7,480 gallons.

<u>Monthly Water Usage</u>	<u>Base Charge Per Mcf</u>	<u>TAP-R Per Mcf</u>	<u>Total Charge Per Mcf</u>
First 2 Mcf (0 to 2 Mcf)	\$72.45	\$3.87	\$76.32
Next 98 Mcf (2.1 to 100 Mcf)	64.76	3.87	68.63
Next 1,900 Mcf (100.1 to 2,000 Mcf)	50.16	3.87	54.03
Over 2,000 Mcf	50.16	3.87	54.03

Note: Actual TAP-R rates are subject to Annual Reconciliation and the determination of the Rate Board.

(d) Temporary Transitional Provisions: Some special customers whose charges are now based on meter size may find that they are in fact 'over-metered' - their metered service is too large for their actual requirements and results in excessive bills. They may apply for a downward revision in the size of their meters. After the approval of the Department, the revision of plumbing arrangements and the installation of smaller meter, the lower charge by meter size shall apply.

3.0 SEWER CHARGES

Charges for sewer service supplied by the City of Philadelphia shall be effective on September 1, 2025, as follows:

3.1 General Customers.

(a) All customers discharging wastewater into the City's wastewater system shall pay sewer charges as set forth in Section 3.3. In addition to the charges set forth in Section 3.3, all customers discharging wastewater whose pollutant content is greater than the pollutant content of Normal Wastewater, as defined below in Section 3.1(b), shall pay an additional surcharge as set forth in Section 3.4.

(b) Normal Wastewater subject to the regular sewer charges set forth in Section 3.3 is that wastewater which contains 250 milligrams per liter or less of five day biochemical oxygen demand (BOD₅) and 350 milligrams or less per liter or less of suspended solids (SS).

(c) Wastewater subject to the surcharge set forth in Section 3.4 is that wastewater which contains either more than 250 milligrams per liter of BOD₅ or more than 350 milligrams per liter of SS, or both.

3.2 Charges.

(a) Sewer charges shall consist of a service charge and a quantity charge.

(b) A service charge shall be billed monthly.

(c) As set forth in Section 3.3(a), the size of the meter shall determine the service charge.

(d) In addition, as set forth in Section 3.3(b), there shall be a quantity charge for sewer service in a monthly billing cycle, either as metered or as estimated.

(e) Quantity charges shall be billed for monthly cycles as provided herein. The cycle shall be between the dates of scheduled metered readings, actual or estimated. Quantity charges imposed shall be based on the water usage of the Property served.

3.3 Regular Sewer Charges.

(a) Monthly service charges shall be determined and billed as follows:

(1) Effective September 1, 2025 and thereafter, the monthly service charge for the various sizes of meters shall be as follows:

<u>Size</u>	<u>Code</u>	<u>Charge</u>
-------------	-------------	---------------

5/8	R	\$8.22
3/4	Z	10.52
1	Q	15.47
1 -1/2	P	27.30
2	X	42.16
3	O	76.09
4	W	129.24
6	N	254.85
8	V	403.41
10	E	582.16
12	T	1059.17

Residential Fire Sprinkler System Meters

Size Code Charge

3/4	Z	8.22
1	Q	8.22
1 -1/2	P	8.22
2	X	8.22

(b) Quantity charge

In addition to the service charge, the quantity charge portion of each sewer bill is determined by applying the quantity charge rate shown below to all water use. In addition, the quantity charge will also include a TAP Rate Rider Surcharge, as set forth in Section 10.

1 Mcf = 1,000 Cubic Feet = 7,480 gallons

(1) Effective September 1, 2025 and thereafter, the quantity charge shall be:

<u>Base Charge</u>	<u>TAP-R</u>	<u>Total Charge</u>
<u>Per Mcf</u>	<u>Per Mcf</u>	<u>Per Mcf</u>
\$47.39	\$5.67	\$53.06

3.4 Surcharge.

(a) Effective September 1, 2025 and thereafter, the surcharge for wastewater by definition in excess of Normal Wastewater shall be fixed at fifty-one and four tenths cents (\$0.514) per pound of pollutants received into the wastewater system in excess of 250 milligrams

per liter of BOD₅ and fifty-three and five tenths cents (\$0.535) per pound of pollutants received into the wastewater system in excess of 350 milligrams per liter of SS.

(b) The BOD₅ and SS of wastewater shall be determined from samples taken on the Customer's Property at any period or time and of such duration and in such manner as the Department may prescribe or at any place mutually agreed upon between the Customer and the Department. With prior written approval of the Department, the results of routine sampling and analyses by the Customer may be used in determining the amount of the surcharge.

(c) If, in the Department's judgment, sampling of wastewater is neither feasible nor practical, the Department, for billing purposes, may base BOD₅ and SS of the wastewater on sampling results for similar discharge and/or values obtained from technical literature.

(d) Customers discharging wastewater subject to the surcharge shall, as prescribed by the Department:

(1) Install and maintain such facilities for sampling and measuring the wastewater discharged from their properties; and

(2) Maintain such records and information deemed necessary for the determination of the surcharge.

(e) Customers, as required from time to time, shall file with the Department responses to a questionnaire establishing or revising pertinent information on the quantity of flow and the quality of wastewater and other data deemed necessary for the determination of the surcharge.

(f) Measurements, tests and analyses of the characteristics of wastewater subject to surcharge shall be determined in accordance with the latest edition of *Standard Methods for the Examination of Water and Wastewater*, published jointly by the American Public Health Association, the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

(g) The surcharge shall be applied to the total wastewater discharged less any portion excluded by the Department.

3.5 Sewer Credits.

Pursuant to Section 13-101(6) of the Philadelphia Code, the method of crediting water users' sewer bills for City water used but not discharged into the wastewater disposal system shall be as follows.

(a) Eligibility. Where commercial and industrial facilities that use City water do not discharge all of such water into the wastewater system, the quantity of such water may be excluded in determining the proper sewer charge, provided that:

(1) at least 5% of water used, or

(2) 225,000 cubic feet per year, whichever is less, is not discharged into the wastewater system.

(b) Determination of the Amount of Exclusion. To determine the amount of such exclusion the Customer shall install a meter or measuring device satisfactory to the Department provided that, if in the opinion of the Department, it is not feasible to install a meter or measuring device, some other satisfactory method of measuring (“credit factor”) may be designated by the Department on application of the Customer.

(c) Fee for Application. When the Customer applies to the Department for a determination on the quantity of water to be excluded by some method other than metering of the sewer, or re-applies for a revised method measuring a larger quantity of water to be excluded, there shall be charge of one thousand six hundred and ten dollars (\$1,610) for the review of such application.

(d) Effective Date of Credits and Approved Credit Factors. Credits on a water user’s sewer bills for quantities of water used but not discharged into the wastewater disposal system shall be effective from the submission date of an approved application. In order to be reviewed for approval, applications shall be complete, submitted on forms provided by the Department and shall be accompanied by a check payable to the City of Philadelphia in the amount required in Section 3.5(c). No credits shall be made retroactively.

(e) Review of Approved Credit Factors. The Department reserves the right to review approved credit factors. Customers may, from time to time, be required to submit current water use and sewer discharge information. Customers may also be required to submit new applications for the credit factor. Failure to comply with the Department’s requests for information or new applications may result in termination of the Customer’s credit factor.

(f) Failure to Inform the Department of Increased Sewer Use. Customers with credit factors who fail to inform the Department of increased discharges to the wastewater system shall be subject to the imposition of the full charges for sewer use based on total water usage from the most recent application date, with applicable interest. In addition, the Department may impose a fine of five hundred and ninety-five dollars (\$595) for each billing period from the application date.

4.0 STORMWATER MANAGEMENT SERVICE CHARGES

Charges for Stormwater Management Services (SWMS) supplied by the City of Philadelphia shall be effective September 1, 2025 as follows:

4.1 Charges.

All properties within the City shall be billed a SWMS charge.

4.2 Residential Properties.

All Residential Properties shall be charged a monthly SWMS charge and a monthly Billing and Collection charge as follows:

(a) Effective September 1, 2025 and thereafter all Residential Properties shall be charged the rates listed below:

<u>SWMS</u>	<u>Billing & Collection</u>
\$19.32	\$2.06

(b) Residential Properties which do not have sewer service and which also have previously been charged only for water service shall be charged the rates shown above at 4.2 (a).

4.3 Non-Residential Properties.

Non-Residential Properties shall be charged a monthly SWMS charge and a monthly Billing and Collection charge as follows:

(a) Non-residential Properties shall be charged based on the Gross Area (GA) of the Property and the Impervious Area (IA) of the Property.

(1) GA includes all of the Property area within the legally described boundaries except streets, medians, and sidewalks in the public right-of-way and railroad tracks and station platforms in the railroad right-of-way.

(2) IA includes surfaces which are compacted or covered with material that restricts infiltration of water, including semi-pervious surfaces such as compacted clay, most conventionally hard-scaped surfaces such as streets, driveways, roofs, sidewalks, parking lots, attached and detached structures, and other similar surfaces.

(i) For Non-residential Properties with less than 5,000 square feet GA, the IA shall be estimated as a percentage of GA.

(A) For Undeveloped Property as defined in Section 1.0, the IA shall be 25% of the GA.

(B) For other Properties, the IA shall be 85% of the GA.

(3) In determining the GA Factor and IA Factor of a Property for the SWMS charge, the Department shall use increments of 500 square feet rounding up to the next highest increment.

(4) Calculating the Monthly SWMS charge. The monthly SWMS charge for each Non-residential Property is calculated by:

(i) dividing the GA in square feet by 500 and rounding up to the next whole unit to determine the GA Factor, then multiplying the GA Factor by the GA Rate to determine the GA charge;

(ii) dividing the IA in square feet by 500 and rounding up to the next whole unit to determine the IA Factor, then multiplying the IA Factor by the IA Rate to determine the IA charge;

(iii) the addition of the GA charge and the IA Charge equals the SWMS charge; and

(iv) the addition of the SWMS charge and the Billing and Collection charge together equals the total monthly stormwater charge.

(5) Rates for GA, IA and Billing and Collection.

(i) Effective September 1, 2025 and thereafter, the Rates shall be as follows:

<u>GA</u> (\$/500 s.f.)	<u>IA</u> (\$/500 s.f.)	<u>Billing & Collection</u>
0.927	6.519	\$2.67

(6) Minimum Monthly Charges. Non-residential Properties shall be subject to a minimum monthly charge. If the monthly charge calculated in Section 4.3(a)(4) is less than the monthly charges listed below then the monthly charges below shall be billed to the Property.

<u>SWMS</u>	<u>Billing & Collection</u>
\$19.32	\$2.67

(7) Adjustment Appeal Procedure.

(i) Customers may appeal the GA and/or IA calculations, property classification, or charge distribution of their property.

(ii) Adjustments shall be made using forms and procedures as defined by the Credits and Adjustment Appeals Manual and sent to:

Philadelphia Water Department
SWMS Charge Appeals
1101 Market Street
4th Floor
Philadelphia, PA 19107-2994

(iii) Adjustments to the GA and/or IA determination are separate and distinct from the billing review procedures established by Section 19-1702 of the Philadelphia Code.

(iv) The grounds supporting the adjustment shall be stated in writing, and include any exhibits, such as photographs, drawings or maps, site plans, and affidavits that support the claim. In addition, a land survey prepared by a registered surveyor shall be attached showing all Dwelling Units, total property area, type of surface material and impervious area, as appropriate, and any other information requested in writing by the Department. The Department may waive the submission of a land survey, if the Department determines that the survey is not necessary to make a determination on the appeal.

(v) The Customer filing the appeal is solely responsible to demonstrate, by clear and convincing evidence, that the GA and/or IA square footage information used by the Department, from which the adjustment appeal is being taken, is erroneous.

(vi) The filing of a notice of an adjustment appeal shall not stay the imposition, calculation or duty to pay the SWMS charge.

(vii) If the adjustment appeal results in a revised GA and/or IA calculation, correction of property classification, correction of parcel identification, or revisions to the default charge allocation, then the adjusted SWMS Charge will be effective from the date of receipt of the Adjustment Appeals Application; except that the Department may authorize WRB to credit accounts for adjustments to the GA and/or IA calculation for a period not to exceed three years prior to receipt of the Adjustment Appeals Application if the Customer filing the appeal demonstrates, by clear and convincing evidence, that it was eligible for and qualified to receive the adjustment during the three year period prior to the receipt of the Adjustment Appeals Application was incorrect.

(8) Multiple Accounts Serving One Property. Where there are multiple water accounts on a single Property, the entire SWMS charge of that Property shall be divided

equally among the accounts. Each account shall also be billed a Billing and Collection charge. Property Owners shall have the opportunity to request an alternative allocation of the SWMS Charge.

4.4 Condominium Properties.

(a) Condominium Properties shall be charged SWMS and Billing and Collection charges on the same terms as Non-residential Properties under Section 4.3, but shall be billed as follows:

(1) Condominium Properties with a single water meter account shall be billed such that the entire SWMS charge of the condominium complex property plus a Billing and Collection Charge are billed to that single account.

(2) Condominium Properties with individual water meter accounts for each unit shall be billed such that the entire SWMS charge of the condominium complex property shall be divided and billed equally to each individual account. In addition, each account shall be billed a Billing and Collection Charge.

(3) Condominium Properties with more than one water meter, but without individual water meters for each unit, shall be billed such that the entire SWMS charge of the condominium complex property shall be divided equally among the accounts. Each account shall also be billed a Billing and Collection Charge. The Condominium Owner's Association shall have the opportunity to request an alternative allocation of the SWMS charge.

4.5 SWMS Credits

(a) Eligibility.

(1) Accounts on Non-residential and Condominium properties must be current to be eligible for credits.

(2) The Customer shall make the Property available for inspection by the Department and provide all necessary documentation for purposes of verifying the appropriateness of a SWMS credit(s).

(3) The Customer shall fulfill credit requirements, as described in Section 4.5(c) below, in accordance with the maintenance guidelines as prescribed by the Department, including any and all inspection and reporting obligations.

(b) Classes of Credits. There are three classes of credits: IA Credit, GA Credit, and NPDES Credit. The IA Credit provides a reduction to the IA Charge; the GA Credit provides a reduction to GA Charge; and the NPDES Credit provides reduction to the total SWMS Charge. A Property may be approved for credits from each of the three classes;

however, if the resulting SWMS Charge after the application of any credits is less than the Non-residential minimum monthly charge, then the minimum monthly charge will apply.

(c) Credit Requirements.

(1) IA Credit. IA Credit is available for the portion of IA on a property where stormwater runoff is managed (IA Managed). IA Managed is achieved as follows:

(i) For areas of the property that meet the requirements of the following Impervious Area Reductions (IAR), as described in the Stormwater Credits and Adjustment Appeals Manual, a direct reduction in the billable IA may be applied:

- (A) Rooftop disconnection,
- (B) Pavement disconnection, or
- (C) Tree canopy coverage.

(ii) For Properties with PWD-approved Stormwater Management Practices constructed per Chapter 6 of the Department's regulations, the customer must demonstrate compliance with the regulations, including management of the first 1.5 inches of runoff and any and all required reporting, inspection and maintenance activities, except as otherwise provided in 4.5(c)(1)(iv).

(iii) For properties with PWD-approved Stormwater Management Practices, including those constructed with Department stormwater grant funds, the customer must demonstrate management of the first 1.5" of runoff and SMP compliance per the approved record drawing and any and all reporting, inspection and maintenance activities, except as otherwise provided in 4.5(c)(1)(iv).

(iv) The Department may approve a Property for IA credit for Non-Surface Water Discharges under the credit requirements in effect before September 1, 2021, if the Department receives a credit application for that Property on or before September 1, 2021. Such Properties property receiving credit under the credit requirements in effect before September 1, 2021 may continue to receive the credit under those requirements until the credit expires. Upon expiration of the credit, the current or future Property Owners of such Properties may renew the credit under the credit requirements in effect before September 1, 2021 by submitting a renewal application(s) in accordance with Subsection 4.5(f)(4) unless and until this section is modified.¹

(v) For Surface Discharges, the Customer must demonstrate that a portion or all of the impervious area discharges directly to a surface water body.

¹ Prior to September 1, 2021, Customers of Properties with non-Surface Discharges were required to demonstrate management of the first inch of stormwater runoff in one of the three following ways: (1) infiltration, (2) detention and slow release, and/or (3) routing through an approved volume -reducing SMP.

(2) GA Credit.

(i) Impervious area only. Impervious area shall receive a GA credit based on the criteria defined in Section 4.5(c)(1)(ii), (iii), (iv) and (v) herein.

(ii) Open Space area only. Open Space area is non-impervious area and is calculated as GA minus IA. The Customer must demonstrate a Natural Resource Conservation Service Curve Number (NRCS-CN) below a certain value as described in the Credits and Adjustment Appeals Manual.

(3) National Pollutant Discharge Elimination System (NPDES) Credit. The Customer must demonstrate the property is subject to and in compliance with a NPDES Permit for industrial stormwater discharge activities.

(d) Credit Maximum.

(1) IA Credit Maximum. IA Credit maximums shall apply as follows:

(i) All Non-residential and Condominium properties are eligible for a maximum of 80% IA Credit for the IA Managed.

(ii) A Non-residential or Condominium property with Surface Discharge is eligible for a maximum of 90% IA credit for the IA Managed.

(2) GA Credit Maximum. GA Credit maximums shall apply as follows:

(i) All Non-residential and Condominium properties are eligible for a maximum of 80% GA Credit.

(ii) A Non-residential or Condominium property with Surface Discharge is eligible for a maximum of 90% GA credit.

(3) NPDES Credit Maximum. Eligible properties shall receive a maximum of 7% NPDES credit as described in the Credit and Adjustment Appeals Manual.

(e) Application of Credits

The application of the three classes of credits in calculating a property's monthly SWMS charge shall be described in the Credits and Adjustment Appeals Manual.

(f) Administration of Credits.

(1) A Customer shall apply for credits using application forms and submitting the required documentation as defined in the Credits and Adjustment Appeals Manual.

(2) Any engineering or other costs incurred in completing the application shall be borne by the Customer.

(3) Credits shall be effective upon receipt of a complete application.

(4) All credits shall expire four (4) years from the effective date of the credit. A Customer may renew credits by submitting a renewal application, documentation required by the Department as defined in the Credits and Adjustment Appeals Manual, and paying a renewal fee of five hundred and fifty-five dollars (\$555).

(g) Termination of Credits.

(1) The Department may review any approved credit at any time to verify its continued applicability. Customers may from time to time be asked to submit documentation and/or grant access to the Property receiving the credit. Failure to comply with such requests may result in the termination of the credit(s).

(2) The Customer's failure to meet credit requirements or comply with inspection and reporting obligations, in accordance with Section 4.5(a)(3), shall result in a suspension or revocation of all affected credits pursuant to the procedures issued by the Department.

(h) The Department may, at its sole discretion, issue stormwater credits to individual parcels where stormwater management is being implemented on a shared, collective basis by an organization representing different parcel owners within a defined geographic area.

5.0 BILLING FOR WATER, SEWER AND STORMWATER SERVICE

5.1 Billing.

(a) Estimated Usage and Billing. When an accurate meter reading cannot be obtained at the time of a scheduled meter reading or when necessary for administrative purposes, the quantity of water used may be estimated for billing purposes. Estimated usage will be based upon actual meter readings from prior cycles or by such other fair and reasonable methods as shall be approved by the Water Commissioner. Where the water usage is estimated because of inability to read the meter, any necessary corrections shall be made at the time of the next actual meter reading, or when appropriate.

(b) Charges to be Combined. At the discretion of the Water Commissioner, each bill may combine in one amount the service charge and any quantity charges for water, sewer and stormwater, if applicable.

(c) Bills Due and Payable. All bills are due and payable when rendered.

(d) Penalties for Late Payments.

(1) If current water, sewer, and stormwater bills are not paid within thirty (30) days from the date indicated on the bill, a penalty of five percent (5%) shall be imposed.

(2) An additional penalty of one half of one percent (0.5%) shall be imposed and added to water, sewer, and stormwater bills on the due date of the bill of each succeeding cycle, except that a period of thirty (30) days shall elapse before the first additional penalty is imposed.

(3) If any water, sewer, and stormwater bill remains unpaid for two cycles after the bill has been rendered, the Revenue Department shall serve a notice of termination upon the delinquent Property Owner and, if the charge, with penalties thereon, is not paid within ten (10) days after such service of notice, the Department, in its discretion, may suspend water service to the Property until the charge with penalties is paid. Penalties for late payment are set by ordinance, not by regulation, and any amendments to the current ordinance shall apply as provided therein.

(e) Balance Due. Each bill shall include any balances due for bills issued from October 1, 2000, including penalties.

(f) Changes in Meter Size. When a change in meter size is made, the charge for the new meter size shall become effective on the date of such change.

(g) Unmetered Customers.

(1) Unmetered Customers shall be billed the same charges established for metered Customers. The water and sewer service charges will be determined by the size of the meter which would be installed for an equivalent service at a similar property. The SWMS charges will be determined based on Section 4.0. The Revenue Department shall estimate the quantity of water used and bill accordingly using the applicable water and sewer quantity charges.

(2) Where unmetered wastewater is discharged to the sewer system without adequate sewer metering, the Department reserves the right to bill the amount of flow based upon its engineering judgment of a reasonable estimate of unmetered usage.

(h) Unoccupied Property.

The billing of unoccupied Properties for water and sewer shall be discontinued only on issuance of a Discontinuance of Water permit. Nothing in this Section shall relieve a Property Owner of his responsibility for maintaining a service line unless a Discontinuance of Water permit has been secured. Under no circumstances will the stormwater service charge be terminated.

(i) Extraordinary Uses or Appliances.

In the event that extraordinary or peculiar uses or appliances, in the opinion of the Water Commissioner, warrant a special charge not provided herein, such charges shall be as fixed by the Water Commissioner in writing.

5.2 Special Customers.

The water, sewer and stormwater management service charges established in Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq. shall be applied to all general Customers, except the following groups of special Customers:

(a) GROUP I

(1) Public and private schools which provide instruction up to or below the twelfth grade but not beyond that grade, and excluding service to any separate or adjoining facilities or structures not used exclusively for educational or instructional purposes.

(2) Institutions of “purely public charity”, as defined by [the Charity Water Rates and Charges Program Regulations in Chapter 2 of the Department’s regulations](#), except universities and colleges and excluding service to any separate or adjoining facilities or structures not used exclusively for the principal purpose of the charity.

(3) Places used for actual religious worship.

(b) GROUP II

(1) Residences of eligible senior citizens provided that the senior citizen shall:

(i) Make application for such reduction to the Revenue Department within the first billing period for which reduction is sought; and

(ii) Submit satisfactory proof that the applicant is 65 years of age or older and that he or she makes payment directly to the City for water, sewer, and stormwater service to his or her residence which is located in the City of Philadelphia; and

(iii) Submit satisfactory proof to the Revenue Department that the applicant does not exceed the household income limitation of \$38,800 per year established by the Department. The above income limitation shall apply to those applying for this discount subsequent to June 30, 1982.

(iv) Effective with each subsequent general rate change in the water/sewer/stormwater charges, the Department shall adjust the Senior Citizen Income Limitation using the latest Consumer Price Index data available, as defined in the Philadelphia Code at Section 19-1901.

(c) GROUP III

(1) Universities and colleges, excluding service to any separate or adjoining facilities or structures not used exclusively for educational or instructional purposes.

(d) GROUP IV

(1) Public housing properties of the Philadelphia Housing Authority.

(e) GROUP V

(1) Group V Customers are Customers enrolled in the Income-Based Water Revenue Assistance Program (IWRAP) described in Section 19-1605 of the Philadelphia Code after the Water Revenue Bureau begins to issue IWRAP bills. Monthly bills for a Customer enrolled in IWRAP will be determined based on the Customer's family size and household income and will be charged in lieu of the service, usage and stormwater charges established in Sections 2.0 et seq., 3.0 et seq. and 4.0 et seq. for general Customers. Group V Customers will pay a percentage of his/her household income depending on where that Customer falls within the Federal Poverty Guidelines (FPL), subject to a minimum bill amount of \$12 per month.

(2) For determining the amount of service, usage and stormwater charges on monthly bills, Group V Customers will be defined according to three income tiers as follows:

(i) Group V-A. Group V Customers whose gross household income has been verified as being from 0% of FPL and up to and including 50% of FPL

(ii) Group V-B. Group V Customers whose gross household income has been verified as being greater than 50% of FPL and up to and including 100% of FPL.

(iii) Group V-C. Group V Customers whose gross household income has been verified as being greater than 100% of FPL and up to and including 150% of FPL.

(f) GROUP VI

(1) Customers with parcels eligible for a discount from the stormwater management service charge as a qualified Community Garden pursuant to Section 19-1603 of the Philadelphia Code and regulations promulgated by the Water Department under that Section.

(g) GROUP VII

(1) All unoccupied properties of the Philadelphia Land Bank.

(h) Charges for Special Customers

(1) As of September 1, 2021, the charges to Groups I, II, and III of special Customers listed above shall be seventy-five percent (75%) of the charges as established in Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq., including both the water and sewer service and quantity charges, and the SWMS charges. The charges to Group IV Customers shall be ninety-five percent (95%) of the charges as established in Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq., including both the water and sewer service and quantity charges, and the SWMS charges.

(2) Group V Customers enrolled in IWRAP after the Water Revenue Bureau begins to issue IWRAP bills will be responsible for paying the following charges for service, usage and stormwater charges, or \$12 per month, whichever is greater:

(i) Group V-A: 2.0% of household income.

(ii) Group V-B: 2.5% of household income.

(iii) Group V-C: 3% of household income.

(3) Group VI: Effective with bills issued on or after January 1, 2017, Group VI special Customers will receive a 100% discount on the stormwater management service charges for parcels classified by the Department as Community Gardens upon approval of an application for a discount consistent with Section 19-1603 of the Philadelphia Code and regulations promulgated by the Department under that Section.

(4) Group VII: Effective with bills issued on or after September 1, 2018, Group VII special Customers are fully exempt from all water, sewer and stormwater management rates and charges.

(i) All of these special Customers shall meter all water connections and they shall be subject to all provisions herein not inconsistent with Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq.

(j) All special Customers are subject at any time to review as to their special charges by the Department or the Water Revenue Bureau and may be required to furnish adequate evidence supporting the continuance of such charges to the Department or the Water Revenue Bureau upon written notice to do so. Failure to furnish such evidence shall be sufficient ground for denial or termination of such special charges.

(k) Special charges may be granted subject to the Department's review and approval of the size of the meter installed.

(l) When the special use for which the special charge is granted ceases, the special charge ceases and the charges for general Customers shall apply thereafter.

(m) When any vacant or unoccupied premises are acquired by the City, charges for water and sewer, including charges relating to storm water management and disposal, shall terminate on the date that such premises are acquired.

(n) When any property is acquired or held by the Philadelphia Housing Development Corporation or acquired or held by the City or the Redevelopment Authority pursuant to Chapters 16-400 or 16-500 of the Philadelphia Code, charges for water and sewer, including charges relating to storm water management and disposal, shall be abated.

5.3 Eligibility for Charity Rates and Charges.

The Department has promulgated regulations to manage the eligibility for and administration of Charity Rates and Charges.

5.4 Account Review.

The Department, from time to time, may review the status of organizations receiving Charity Rates and Charges. During this review, eligible organizations may be required to submit new applications.

5.5 No Waiver.

Nothing herein shall limit the Department on its own findings or at the request of another City agency from suspending Charity Rates and Charges from organizations which have violated City law or regulations and thereby under such City law or regulations have forfeited such privileges as the Charity Rates and Charges.

6.0 MISCELLANEOUS WATER CHARGES

Charges for miscellaneous water services supplied by the City of Philadelphia shall become effective September 1, 2025 as follows:

6.1 Meter Test Charges.

(a) A Customer may apply to the Department for a test of the accuracy of the registration of a water meter (Meter Test). At the Customer's request, the Department shall notify the Customer of the time and place of the test so that the Customer may be present.

(b) In testing, meters may be removed from the line and replaced by a tested meter. If removed, the meter shall be tested at the Department's Meter Shop. Meters may also be tested and recalibrated in place without removal and replacement.

(c) All meters shall be removed, replaced, tested or calibrated during the Department’s regular business hours (9:00 a.m. to 4:45 p.m.).

(d) A Customer may request a Meter Test to be performed outside the regular business hours of the Department under the following conditions:

(1) the Department has staff available and agrees to a time outside the regular business hours of the Department; and,

(2) the Customer agrees to pay the overtime and added expenses, whether the meter passes or fails the test.

(e) If the register on the meter is found upon testing to be registering within two percent (2%) of the actual volume of water passing through the meter, or registering in favor of the Customer, the Customer will be assessed a Meter Test Charge as follows:

<u>Meter Size</u>	<u>Charge</u>
5/8”	\$160
1”, 1-1/2”, 2”	\$225
3”, 4”, 6”, 8”, 10”, 12”	\$425

Field Tests, 3” and above	\$425

(plus any charges and/or expenses incurred for work performed outside the regular hours of business, if requested by the Customer).

(f) If the meter is found upon testing to be registering in excess of 102% of the actual volume of water passing through the meter, the Customer shall not be assessed a Meter Test charge as provided for in subsection (e); and, WRB shall review the billing history of the tested meter for a period not to exceed three years on the basis of the corrected registration and revise it as necessary.

(g) The Department will, at the request of a Customer, test his or her meter at no charge once every twenty years. Additional tests are subject to the charges listed in Section 6.1(e).

6.2 Charges for Furnishing and Installation of Water Meters.

The charges for furnishing and installing water meters are as follows.

(a) For work which involves the furnishing and setting of a water meter and meter interface unit (MIU), the following charges are hereby established:

<u>Meter Size</u>	<u>Charge</u>
5/8"	\$300
3/4" RFSS	540
1"	455
1" RFSS	565
1 1/2"	1,220
1 1/2" RFSS	1,040
2"	1,220
2" RFSS	1,260
3" Compound	4,145
3" Turbine	2,045
3" Fire Series	4,105
4" Compound	5,495
4" Turbine	3,270
4" Fire Series	5,415
4" Fire Assembly	7,615
6" Compound	8,215
6" Turbine	6,180
6" Fire Series	7,205
6" Fire Assembly	11,975
8" Turbine	7,365
8" Fire Series	9,435
8" Fire Assembly	15,425
10" Turbine	10,590
10" Fire Series	11,645
10" Fire Assembly	22,340
12" Turbine	11,325
12" Fire Series	14,790
12" Fire Assembly	23,805

(b) For work which involves only the furnishing and setting of an MIU, the following charges are hereby established:

<u>Meter Size</u>	<u>Charge</u>
5/8"	\$ 100
3/4" RFSS	100
1"	150
1 " RFSS	150
1 1/2"	150
1 1/2" RFSS	150
2"	150
2" RFSS	150
3" Compound	340
3" Turbine	340

4" Compound	340
4" Turbine	340
6" Compound	340
6" Turbine	340
8"	340
10"	340

(c) If extraordinary work is required in connection with the installation of a water meter or the replacement of a damaged meter, additional charges shall be computed using actual salaries and materials expended, plus applicable overhead costs.

(d) The Property Owner shall be responsible for safeguarding the meter and seals and shall pay for necessary repairs and replacements due to his/her failure to provide adequate protection to the meter and seals from theft, vandalism, freezing, tampering or other damage. The Property Owner shall also be responsible for the repair and maintenance of the plumbing accessory to the meter, such as inoperable valves, weakened service pipes and fittings, etc. and shall provide and pay for such plumbing, repair and maintenance as City metering needs may require.

6.3 Tampering of Meter.

(a) In the event that an investigation indicates that tampering of a meter has occurred, the following charges to the Customer shall be assessed:

<u>Meter Size</u>	<u>Charge</u>
5/8" or 3/4"	\$ 110
1", 1½", 2"	170
3" and larger	380

6.4 Shut-Off and Restoration of Water Service.

(a) If the Department is required to visit a Property to shut off service for non-payment; and, payment is tendered at the time of the shut-off, a charge of one hundred dollars (\$100) will be assessed, with the exception stated in Section 6.4(e).

(b) A one hundred dollar (\$100) charge will be assessed if shut-off of the water service is required as a result of non-compliance with a Notice of Defect and/or metering non-compliance.

(c) After termination of water service for non-payment or violation of service requirements, restoration of water service will not be made until the following charges have been paid in full or payment arrangements satisfactory to the Revenue Department have been made.

(1) Where the only work required is operating the service valve:

- (i) service lines 2” and smaller.....\$100
with the exception stated in Section 6.4(e)

- (ii) service lines larger than 2”\$385

- (2) Where the curb stop is obstructed, the access box missing or otherwise requires excavation\$790

- (3) Where the curb stop is inoperable and a new curb stop must be installed...\$830

- (4) Where the curb stop is obstructed, the access box missing, or otherwise requires excavation, and replacement of footway paving is required.....\$805

- (5) Where the curb stop is inoperable and a new curb box must be installed and replacement of footway paving is required.....\$840

- (6) Where excavation and shut-off of the ferrule at the water main is required\$1,615

- (d) If the Department is required to remove concrete footway paving in order to perform the shut-off and/or restoration, the footway will be replaced by the Department and the preceding charges applied unless proof has been provided to the Department that some other qualified person will replace the paving.

- (e) A charge of \$12 will be assessed if a Customer is enrolled in IWRAP and the Department is required to visit the Property to:
 - (1) shut off service for non-payment; and, payment is tendered at the time of the shut-off; or

 - (2) restore water service after termination of water service for non-payment or violation of service requirements.

6.5 Pumping of Properties.

The following charges shall apply for the pumping of water from properties when the condition requiring such service is not caused by the Department.

(a) Occupied Properties

- (1) Pumping of water from occupied Properties may be done at the Property Owner's request and expense.

(2) Pumping of other Properties due to the failure of a Property Owner's piping may be performed by the Department and be charged to the Property Owner of the Property at which the failure occurred.

(3) Charges for pumping shall be calculated at actual salaries and materials expended, plus applicable overhead costs.

(b) Unoccupied Properties

The Department may, at its sole and exclusive discretion, pump water from unoccupied properties if it is determined that a serious condition exists. The charges for pumping shall be as specified in Section 6.5(a).

6.6 Charges for Water Main Shutdown.

(a) The Department of Licenses and Inspections shall issue permits for the temporary shutdown of a water main to allow a registered plumber to make immediate repairs to a broken water service and to avoid the necessity of opening the street.

(b) Permits shall be issued after:

(1) Certification by the Department that the shutdown will not seriously inconvenience other Customers; and

(2) The applicant has paid a three hundred and sixty dollar (\$360) service charge.

(c) In an emergency or when responsibility for a leak is in doubt, the Department may make the shutdown before the permit is obtained. If the Department determines that the leak was not the Department's responsibility, the owner shall obtain a permit and pay the above stated service charge and any other costs incurred by the Department in conducting the emergency shut down.

6.7 Water Connection Charges.

(a) Permits. Permits for connections to the City's water supply system shall be issued by the Water Permit section of the Department of Licenses and Inspections.

(b) Ferrule Connections.

(1) Connections between 3/4 inch and two inches (2") in diameter shall be made by a ferrule installed by the Department. The owner, at his own expense, shall excavate for the connection, install all piping and appurtenances after the ferrule and fill the excavation. The owner thereafter shall be responsible for maintaining this piping and appurtenance.

(2) The charges for such ferrule connections, with the exception stated in Section 6.7(b)(3), shall be as follows:

<u>Size</u>	<u>Charge</u>
¾"	\$235
1"	265
1½"	330
2"	430

(3) The charges for such ferrule connections, when the work performed at the Customer's request is not during the Department's regular business hours (9:00 a.m. to 4:45 p.m.), shall be as follows:

<u>Size</u>	<u>Charge</u>
¾"	\$260
1"	295
1½"	355
2"	455

(c) Valve Connections. Connections three inches (3") and larger shall be made by a valve installed by the Department. This valve installation shall include, but shall not necessarily be limited to, the connection to the main, the valve, valve box, necessary piping after the valve from the main in the street to one foot inside the curb, backfill and repaving. The Department shall thereafter be responsible for maintaining this valve and piping, unless the associated meter has been reduced at the Property Owner's request to a two inch (2") or smaller meter, in which case the Property Owner shall be responsible for valve and piping maintenance.

(1) The charges for valve connections shall, with the exceptions stated in Section 6.7(c)(2), shall be as follows:

<u>Size</u>	<u>Charge</u>
3" & 4"	\$14,330
6" & 8"	15,505
10" & 12"	18,950

(2) The charge for such valve connections, when the work is performed at the Customer's request is during other than normal work hours or the work is performed in an area designated by the Streets Department as a special work zone, shall be as follows:

<u>Size</u>	<u>Charge</u>
-------------	---------------

3" & 4"	\$16,425
6" & 8"	17,600
10" & 12"	21,045

(d) Attachment to a Transmission Main

(1) There shall be no connection to a transmission main without Department approval. Such approval shall be requested by application forms and procedures issued by the Department.

(2) Where a connection is made to a water main larger than 12 inches in diameter, with the exceptions stated in Sections 6.7(d)(3)&(4), the charges will be a follows:

SLEEVE 3" & 4"

MAIN

16"	\$24,805
20"	27,900
24"	30,910
30"	47,285
36"	56,695

SLEEVE 6" & 8"

MAIN

16"	\$25,095
20"	27,440
24"	30,910
30"	49,990
36"	62,930

SLEEVE 10" & 12"

MAIN

16"	\$25,150
20"	28,700
24"	30,910
30"	50,990
36"	66,810

(3) The charges for such connections, when the work performed at the Customer's request is not during the Department's regular business hours (9:00 a.m. to 4:45 p.m.), or

the work performed is in an area designated by the Streets Department as a special work zone, shall be as follows:

SLEEVE 3" & 4"

MAIN

16"	\$27,425
20"	30,515
24"	33,525
30"	49,900
36"	59,310

SLEEVE 6" & 8"

MAIN

16"	\$27,710
20"	30,055
24"	33,525
30"	52,605
36"	65,550

SLEEVE 10" & 12"

MAIN

16"	\$27,765
20"	31,315
24"	33,525
30"	53,605
36"	69,425

(4) Where a connection is made to a water main 48" or larger in diameter, the charge will be that for a connection to a 36" main, stated above in Sections 6.7(d)(2) or (3), plus an additional charge representing the difference between the current cost of a 36" sleeve and the cost of the larger sleeve. The additional charge shall be paid before any permit can be issued as prescribed below in Section 6.11.

(e) Should police assistance for traffic control be required for a ferrule or valve connection, the Customer shall pay the required fee to the Police Department.

6.8 Discontinuance of Water.

Except as otherwise provided, no Customer shall be relieved of the obligation to pay water and sewer charges unless a permit for the discontinuance of water and sewer has been obtained from the Department of Licenses and Inspections pursuant to the provisions of Philadelphia Code section 19-1601. When a permit is granted to discontinue water and sewer service, charges shall terminate on the date of removal of the meter by the Department. The charge for a permit for discontinuance of water is one hundred dollars (\$100), regardless of service size. A validly issued permit to discontinue water and sewer does not terminate the obligation to pay for stormwater management services.

6.9 Hydrant Permits.

(a) A permit shall be obtained from the Water Permit section of the Department of Licenses and Inspections before a hydrant can be used. The permit shall contain the terms and conditions that are required of the Customer in order for the Customer to use the hydrant.

(b) The costs for obtaining a permit shall be as follows.

- (1) One Week Permit for use of standard pressure hydrant.....\$ 2,245
- (2) Six Month Permit for use of standard pressure hydrant.....\$ 12,345

6.10 Flow Tests.

When a Customer requests the Department to conduct a flow test on a fire hydrant to determine the volume and residual pressure available on a domestic or fire connection, or at a specific location, the charge shall be six hundred and sixty-five dollars (\$665) for each flow test.

6.11 Water Service Line Investigations and/or Inspections

When a Customer or a duly authorized representative of a Customer requests the Department to conduct an investigation to locate and/or to inspect the water service line at a specific location, the charge shall be one hundred and sixty-five dollars (\$165) for each investigation or inspection. The charge shall be assessed regardless of the result of the investigation or inspection.

6.12 Payment.

All billings for the above services are due and payable when rendered, unless stated otherwise herein, and are subject to such penalties for late payment as is prescribed by current ordinance or as may be amended. Payments for permits shall be made in full prior to any permit being issued.

7.0 MISCELLANEOUS SEWER CHARGES

Charges for miscellaneous sewer services supplied by the City of Philadelphia shall be effective September 1, 2025, as follows.

7.1 Sewer Charges for Groundwater.

(a) Sewer charges for groundwater discharged to the City's sewer system shall be as follows:

(1) Effective September 1, 2025 and thereafter, the rate shall be \$16.33 per 1,000 cubic feet.

(b) To determine the quantity of such discharged groundwater, the Customer shall install a meter or measuring device satisfactory to the Department. If, in the opinion of the Department, it is not feasible to install a meter or measuring device, the Department may designate some other method of measuring or estimating the quantity of discharged groundwater.

7.2 Charges for Wastewater Service.

(a) The charge for sanitary type wastewater delivered to any of the City's Water Pollution Control Plants shall be as follows.

(1) Effective September 1, 2025 and thereafter, the rate shall be \$76.10 per 1,000 gallons.

(b) Where accurate quantities of wastewater delivered cannot be determined, such quantities shall be estimated for billing purposes by such fair and reasonable methods as shall be approved by the Water Commissioner.

(c) The locations, times, delivery procedures and exact nature of the pollution characteristics of the delivered wastewater shall be determined by the Department.

(d) From time to time, Customers shall be required to file with the Department a questionnaire establishing or revising information on the quantity and quality of wastewater delivered and other pertinent data deemed necessary by the Department. Failure to furnish such information shall be sufficient grounds for denial or termination of delivery privileges.

(e) Measurements, tests and analyses of the characteristics of delivered wastewater shall be determined in accordance with the latest edition of *Standard Methods for the Examination of Water and Wastewater*, published jointly by the American Public Health Association, the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

(f) If any bill for the above services shall remain unpaid for more than sixty (60) days from date rendered, the Department may refuse acceptance of additional wastewater until all unpaid balances, with late charges, are paid in full.

7.3 Wastewater Discharge Permit.

All Industrial Users contributing wastewater to the City's sewer system must obtain a permit from the Department pursuant to the Wastewater Control Regulations in Chapter 5 of the Department's regulations. The fee for each new or renewal permit is five thousand three hundred and eighty-five dollars (\$5,385).

7.4 Groundwater Discharge Permit.

All Industrial Users contributing groundwater to the City's sewer system must obtain a permit from the Department pursuant to the Wastewater Control Regulations contained in Chapter 5 of the Department's regulations. The fee for each new or renewal permit is three thousand two hundred and fifty dollars (\$3,250).

7.5 Manhole Pump-out Permit

(a) Any non-domestic User discharging wastewater from underground structures to the City's sewer system must obtain a manhole pump-out permit from the Department pursuant to the Wastewater Control Regulations in Chapter 5 of the Department's regulations. The fee for each new or renewal permit is three thousand one hundred and seventy-five dollars (\$3,175).

(b) In the event a User requests discharge locations in the City's separate sewer areas under this permit, the City may assess additional fees for any work associated with the review of this request and the identification of the discharge locations.

7.6 Trucked or Hauled Wastewater Permit

Any person trucking or hauling wastewater to the POTW must first obtain a septage discharge permit from the Department pursuant to the Wastewater Control Regulations in Chapter 5 of the Department's regulations. The fee for each new or renewal permit shall be two thousand two hundred and fifty-five dollars (\$2,255).

7.7 PHOTOGRAPHIC & VIDEO INSPECTION

When a Customer or a duly authorized representative of a Customer requests the Department to conduct a photographic or video inspection of a private sewer line at a specific location, the charge shall be two hundred and seventy five dollars (\$275) for each photographic or video inspection. The charge shall be assessed regardless of the result of the photographic or video inspection.

7.8 Payment.

All billings for the above services are due and payable when rendered, unless stated otherwise herein, and are subject to such penalties for late payment as is prescribed by current ordinance or as may be amended. Payments for permits shall be made in full prior to any permit being issued.

8.0 MISCELLANEOUS PLAN REVIEW AND INSPECTION CHARGES

8.1 Stormwater Plan Review and Inspection Fees.

All Development plans submitted to the Department under Chapter 6 of the Department's regulations for stormwater management approvals shall be subject to a plan review fee.

(a) Fees.

(1) A fee of one thousand seven hundred and sixty-five dollars (\$1,765) shall be due upon submission of the Conceptual Stormwater Management Plan for review.

(2) A fee of two hundred and fifty-five dollars (\$255) per hour of review time shall be due prior to issuance of the Post-Construction Stormwater Management Plan approval.

(i) Review time shall be based on the City's tabulation of actual hours expended by Department employees or consultants reviewing the plans associated with a particular development project for compliance with Chapter 6 of the Department's regulations.

(3) A fee of four hundred and five dollars (\$405) for the final inspection of a development project to confirm compliance with Chapter 6 of the Department's regulations shall be due prior to issuance of the Post-Construction Stormwater Management Plan approval.

(4) A fee is applicable when a reinspection of a site determines that a previously found violation of Erosion and Sediment (E&S) control requirements has not been corrected. Fees for subsequent inspections for a site found to be in continuing non-compliance shall be assessed as follows:

- (i) Second Reinspection - one hundred and five dollars (\$105)
- (ii) Third Reinspection - two hundred and ten dollars (\$210),
- (a) Fourth and Any Subsequent Reinspection – three hundred and fifteen dollars (\$315).

(b) Refund of fees. The Department shall refund any fees specified above if a plan submittal is not approved or denied within 21 days for conceptual site plans and within 45 days for technical site plans.

8.2 Stormwater Management Fee in Lieu.

The fee in lieu shall be calculated as follows:

- (a) For an exemption to only the Water Quality Requirement of Chapter 6 of the Department’s regulations the fee in lieu shall be forty dollars (\$40.00) per square foot based on the total Directly Connected Impervious Area within the limit of Earth Disturbance.

8.3 Utility Plan Review Fees.

All Utility Plans submitted to the Department to receive building permit approval in accordance with Administrative Code Section A-305.2.1.6 shall be subject to a plan review fee.

- (a) A fee of three hundred and fifty dollars (\$350) shall be due upon submission of the Utility Plan for review.
- (b) Parcels that qualify as Community Garden pursuant to Section 19-1603 of the Philadelphia Code are exempt from the Utility Plan Review Fee.

9.0 FIRE SERVICE CONNECTIONS

Fire service connection charges shall consist of a monthly service charge and a quantity charge and shall be effective September 1, 2025, as follows.

9.1 Charges.

- (a) Monthly Service Charges.

(1) The monthly service charges for the furnishing of water for the purpose of fire protection effective September 1, 2025 and thereafter, shall be as follows:

<u>Connection Size</u>	<u>Service Charge</u>
Up through 4-inch	\$ 33.88
6-inch	63.64
8-inch	96.90
10-inch	141.86
12-inch	232.14

- (b) The City may permit fire service connections to its water system outside the City of Philadelphia only in properties contiguous to the City where in the opinion of the Water

Commissioner water service for fire protection may be furnished without interference with water service to properties within the City.

(c) Pipe connections to the Philadelphia water system, meters and other service requirements shall be in accordance with the standard fire service requirements of the Department.

(d) Quantity Charges.

(1) In addition to the service charge, the quantity charge portion of each bill is determined by applying the quantity charge rate shown below to all water use. In addition, the quantity charge will also include a TAP Rate Rider Surcharge, as set forth in Section 10.

Effective September 1, 2025 and thereafter, the quantity charge shall be as follows:

1 Mcf = 1,000 cubic feet = 7,480 gallons

<u>Monthly Water Usage</u>	<u>Base Charge Per Mcf</u>	<u>TAP-R Per Mcf</u>	<u>Total Charge Per Mcf</u>
First 2 Mcf (0 to 2 Mcf)	\$72.45	\$3.87	\$76.32
Next 98 Mcf (2.1 to 100 Mcf)	64.76	3.87	68.63
Next 1,900 Mcf (100.1 to 2,000 Mcf)	50.16	3.87	54.03
Over 2,000 Mcf	50.16	3.87	54.03

Note: Actual TAP-R rates are subject to Annual Reconciliation and the determination of the Rate Board.

(e) The provisions in this Section apply to all fire service connections.

9.2 Payment.

All billings for the above services are due and payable when rendered, unless stated otherwise herein, and are subject to such penalties for late payment as is prescribed by current ordinance or as may be amended. Payments for permits shall be made in full prior to any permit being issued.

10.0 PROVISIONS FOR RECOVERY OF THE TIERED ASSISTANCE PROGRAM (TAP) COSTS

The lost revenue related to TAP (the “TAP Costs”) will be recovered via a separate TAP Rate Rider Surcharge Rate (TAP-R), which would be added to the water, fire service and

sewer quantity charge rate schedules. This TAP-R shall be increased or decreased for the next rate period to reflect changes in TAP costs, and will be calculated and reconciled on an annual basis in the manner set forth below.

10.1 Computation of the TAP-R

(a) The TAP-R Equation

The TAP-R shall be computed to the nearest one-hundredth of a dollar per MCF (\$0.01/MCF) in accordance with the formula set forth below:

$$\text{TAP-R} = \frac{(C) - (E + I)}{S}$$

The TAP-R so computed, shall be applied as an adder to the water, fire service connection and sewer quantity charge base rate schedules set forth for water in Section 2.1 (c); sewer in Section 3.3 (b); and fire service in Section 9.1 (d), of these Rates and Charges. As a result, the TAP-R shall consist of two sub-components:

- (1) A “Water TAP-R” added to the water and fire service quantity “base rate” (\$/MCF); and
- (2) A “Sewer TAP-R” added to the sewer quantity “base rate” (\$/MCF).

During the rate periods that TAP-R is effective, to recover the TAP Costs through Water TAP-R and the Sewer TAP-R respectively, the total TAP Costs determined for a given rate period will be apportioned between water and wastewater utilities based on the proportion of water and wastewater net revenue requirement respectively to total net revenue requirement. The percent allocation of TAP Costs between water and wastewater utilities will be as follows:

- (i) Water TAP Cost Allocation: 43%
- (ii) Sewer TAP Cost Allocation: 57%

(b) Definitions

In computing the TAP-R pursuant to the formula above, the following definitions shall apply:

- (1) **TAP-R** - TAP Rate Rider Surcharge Rate (\$/MCF).
- (2) **C** – Cost in dollars of the estimated TAP Billing Loss for the projected period.

- (3) **E** - The net over or under collection of the TAP-R surcharge amount for the Most Recent Period. The net over or under collection will be calculated by comparing the actual TAP Revenue Loss (resulting from discounts provided to TAP Customers) with the actual TAP-R surcharge amounts billed to Non-TAP Customers. Both the TAP Revenue Loss and the TAP-R billings, that are determined for the rate periods, will be adjusted for collections by applying the Department’s system-wide collection factor of 96.93%.

- (4) **I** - Interest on any over or under recovery of the TAP-R for the Most Recent Period. Interest will be computed on a monthly basis using a simple annual interest rate. The interest rate will be based upon the yield to maturity of a particular date of United States Treasury securities with a constant maturity for a 1-year Treasury as compiled and published in the Federal Reserve Statistical Release H.15 (519) for the United States Treasury¹, as it exists each year as of the first day of the month, preceding the month of the annual reconciliation submission to the Rate Board.

- (5) **S** - Projected sales in MCF for Non-TAP customers.

- (6) **Most Recent Period** – The Current Fiscal Year and/or the period for which TAP-R reconciliation is performed.

- (7) **Next Rate Period** – The fiscal year and/or the period that immediately follows the Most Recent Period, and in which the TAP-R is effective.

10.2 Filing with the Philadelphia Water, Sewer and Storm Water Rate Board

The Water Department shall initiate the annual TAP Rate Rider Reconciliation by filing an advance notice with the Philadelphia Water, Sewer and Storm Water Rate Board (the “Rate Board”) and City Council in accordance with the procedures and standards established by the Rate Board through its regulations.

10.3 TAP-R Surcharge Rates

(a) Water TAP-R

The Water TAP-R portion of each water bill is determined by applying the Water TAP-R surcharge rate shown below to all water use.

1 Mcf = 1,000 Cubic Feet = 7,480 gallons
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¹ Currently available at <https://www.federalreserve.gov/releases/h15/>.

- (1) Effective September 1, 2025 and thereafter, the Water TAP-R surcharge shall be \$3.87 per Mcf as determined by the annual reconciliation filing.

(b) Sewer TAP-R

The Sewer TAP-R portion of each sewer bill is determined by applying the Sewer TAP-R surcharge rate shown below to all water use.

1 Mcf = 1,000 Cubic Feet = 7,480 gallons
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- (1) Effective September 1, 2025 and thereafter, the Sewer TAP-R surcharge shall be \$5.67 per Mcf as determined by the annual reconciliation filing.

PHILADELPHIA WATER DEPARTMENT

RATES AND CHARGES

Effective: September 1, 20~~25~~24.

1.0 DEFINITIONS.

(a) **Condominium Properties:** Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership by the owners of those portions. Real estate is not a condominium unless the undivided interests in the common elements are vested in the unit owners.

(b) **Customer:** An owner, Tenant or occupant who by operation of law or agreement is responsible for payment of the charges for water/sewer/stormwater service at a Residential, Non-residential or Condominium Property.

(c) **Department:** The Philadelphia Water Department is the operating department of the City of Philadelphia with the duties, powers and obligations set forth in the Home Rule Charter and the Philadelphia Code.

(d) **Dwelling Unit:** A single unit within a building providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

(e) **Home Rule Charter:** The Philadelphia Home Rule Charter, as codified in Pennsylvania First Class City Home Rule Act, April 21, 1949 P.L. 665, 351 Pa. Code §1-100 et seq.

(f) **Mcf:** Thousand cubic feet. The quantity charges in Sections 2, 3, 9 and 10 are expressed in Mcf.

1 Mcf = 1,000 cubic feet = 7,480 gallons

(g) **Municipal Stormwater System:** City owned and maintained real property, infrastructure or natural feature used and/or constructed for purposes of transporting, conveying, retaining, detaining, or discharging stormwater runoff.

(h) **Non-residential Property:** Real estate which cannot be classified as either Residential or Condominium. Real estate used exclusively as a cemetery shall not be considered Non-residential property.

(i) **Philadelphia Code:** The body of laws and regulations enacted by the Philadelphia City Council.

(j) Philadelphia Department of Records: An operating department of the City of Philadelphia with the duties, powers and obligations set forth in the Home Rule Charter and the Philadelphia Code.

(k) Property: Any parcel of real estate identified in the records of the Philadelphia Department of Records.

(l) Property Owner: The owner of the particular parcel of real estate identified in the records of the Philadelphia Department of Records, or the grantee in a land transfer of record.

(m) Residential Property: Real estate used exclusively for residential purposes with at least one and no more than four Dwelling Units and which cannot be classified as Condominium Property. Property adjacent to Residential Property owned and utilized exclusively by the Residential Property owner for residential uses. Upon proof submitted to the Department, said properties shall be deemed by the Department to form one Residential parcel comprised of the Property and the Residential Property.

(n) Stormwater Management Practice (SMP): Any man-made structure that is designed and constructed to detain, infiltrate, or otherwise control stormwater runoff quality, rate, or quantity.

(o) Surface Discharge: The discharge of stormwater runoff from a property to an adjacent surface water body, without the use of City infrastructure.

(p) Undeveloped Property: Property classified by the Board of Revision of Taxes as SB, SC, SI, SR, or SS; Undeveloped refers to the status of the property as having no structures and is not related to whether the property has ever been developed.

(q) Water Commissioner: The Water Commissioner of the City of Philadelphia who performs the duties and obligations as set forth in the Philadelphia Home Rule Charter and the Philadelphia Code.

(r) Utility Plan: A plan that shows water, sewer, and/or stormwater connections and sizes, utility locations, and impacts to rights-of-way, the approval of which is required under the Administrative Code Section A-305.2.1.6.

1.1 Conformity with Existing Law.

Nothing contained herein shall be deemed to overrule or annul any existing provisions of the Home Rule Charter or the Philadelphia Code.

1.2 Severability.

If any provision, paragraph, word or sections herein is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words and sections shall not be affected and shall continue in full force and effect.

2.0 WATER CHARGES

Charges for water service supplied by the City of Philadelphia shall be effective on September 1, 20~~25~~24, as follows:

2.1 General Customers.

Charges for the supplying of water shall be determined and billed as follows:

(a) Charges and billing in general.

(1) Water charges shall consist of a service charge and quantity charge.

(2) A service charge shall be billed monthly.

(3) As set forth in Section 2.1(b), the type and size of the meter shall determine the service charge.

(4) In addition, there shall be a quantity charge as provided herein for water used in a monthly billing cycle, either as metered or as estimated.

(5) Quantity charges shall be billed for monthly cycles as provided herein. The cycle shall be the period between the dates of scheduled metered readings, actual or estimated.

(b) Monthly service charges.

(1) Effective September 1, ~~2024-2025~~ and thereafter, the monthly service charge for the various types and sizes of meters shall be as follows:

<u>Size</u>	<u>Code</u>	<u>Charge</u>
5/8	R	\$5.176. <u>08</u>
3/4	Z	7.065.7 <u>0</u>
1	Q	9.427.1 <u>9</u>
1 -1/2	P	10.291 <u>4.73</u>

2	X	21.851
		4.75
3	O	37.622
		4.33
4	W	65.444
		3.28
6	N	126.77
		82.46
8	V	197.89
		127.03
10	E	185.16
		287.04
12	T	313.27
		503.58

Residential Fire Sprinkler System Meters

<u>Size</u>	<u>Code</u>	<u>Charge</u>
3/4	Z	9.2712
		33
1	Q	10.761
		4.69
1 -1/2	P	13.862
		0.00
2	X	18.322
		7.12

(c) Quantity charges

In addition to the service charge, the quantity charge portion of each bill is determined by applying the quantity charge set forth below to all water use. In addition, the quantity charge will also include a Tiered Assistance Program (TAP) Rate Rider Surcharge, as set forth in Section 10.

(1) Effective September 1, ~~2024~~2025 and thereafter, the quantity charge portion of each bill shall be as follows:

1 Mcf = 1,000 cubic feet = 7,480 gallons.

<u>Monthly Water Usage</u>	<u>Base Charge Per Mcf</u>	<u>TAP-R Per Mcf</u>	<u>Total Charge Per Mcf</u>
First 2 Mcf (0 to 2 Mcf)	\$64.32 <u>72.45</u>	\$3.08 <u>3.87</u>	\$67.40 <u>76.32</u>
Next 98 Mcf (2.1 to 100 Mcf)	57.88 <u>64.76</u>	3.08 <u>3.87</u>	60.96 <u>68.63</u>
Next 1,900 Mcf (100.1 to 2,000 Mcf)	44.84 <u>50.16</u>	3.08 <u>3.87</u>	47.92 <u>54.03</u>
Over 2,000 Mcf	43.62 <u>50.16</u>	3.08 <u>3.87</u>	46.70 <u>54.03</u>

Note: Actual TAP-R rates are subject to Annual Reconciliation and the determination of the Rate Board.

(d) Temporary Transitional Provisions: Some special customers whose charges are now based on meter size may find that they are in fact 'over-metered' - their metered service is too large for their actual requirements and results in excessive bills. They may apply for a downward revision in the size of their meters. After the approval of the Department, the revision of plumbing arrangements and the installation of smaller meter, the lower charge by meter size shall apply.

3.0 SEWER CHARGES

Charges for sewer service supplied by the City of Philadelphia shall be effective on September 1, ~~2024~~2025, as follows:

3.1 General Customers.

(a) All customers discharging wastewater into the City's wastewater system shall pay sewer charges as set forth in Section 3.3. In addition to the charges set forth in Section 3.3, all customers discharging wastewater whose pollutant content is greater than the pollutant content of Normal Wastewater, as defined below in Section 3.1(b), shall pay an additional surcharge as set forth in Section 3.4.

(b) Normal Wastewater subject to the regular sewer charges set forth in Section 3.3 is that wastewater which contains 250 milligrams per liter or less of five day biochemical oxygen demand (BOD₅) and 350 milligrams or less per liter or less of suspended solids (SS).

(c) Wastewater subject to the surcharge set forth in Section 3.4 is that wastewater which contains either more than 250 milligrams per liter of BOD₅ or more than 350 milligrams per liter of SS, or both.

3.2 Charges.

- (a) Sewer charges shall consist of a service charge and a quantity charge.
- (b) A service charge shall be billed monthly.
- (c) As set forth in Section 3.3(a), the size of the meter shall determine the service charge.
- (d) In addition, as set forth in Section 3.3(b), there shall be a quantity charge for sewer service in a monthly billing cycle, either as metered or as estimated.
- (e) Quantity charges shall be billed for monthly cycles as provided herein. The cycle shall be between the dates of scheduled metered readings, actual or estimated. Quantity charges imposed shall be based on the water usage of the Property served.

3.3 Regular Sewer Charges.

(a) Monthly service charges shall be determined and billed as follows:

(1) Effective September 1, ~~2024~~ 2025 and thereafter, the monthly service charge for the various sizes of meters shall be as follows:

<u>Size</u>	<u>Code</u>	<u>Charge</u>
5/8	R	<u>\$7.648.22</u>
3/4	Z	<u>9.7910.52</u>
1	Q	<u>14.4315.47</u>
1 -1/2	P	<u>25.5327.30</u>
2	X	<u>39.4442.16</u>
3	O	<u>71.2676.09</u>
4	W	<u>120.98129.</u>
		<u>24</u>
6	N	<u>238.64254.</u>
		<u>85</u>
8	V	<u>377.82403.</u>
		<u>41</u>
10	E	<u>545.20582.</u>
		<u>16</u>
12	T	<u>1,059.1799</u>
		<u>2.49</u>

Residential Fire Sprinkler System Meters

<u>Size</u>	<u>Code</u>	<u>Charge</u>
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3/4	Z	<u>7.648.2</u>
		<u>2</u>
1	Q	<u>7.648.2</u>
		<u>2</u>
1 -1/2	P	<u>7.648.2</u>
		<u>2</u>
2	X	<u>7.648.2</u>
		<u>2</u>

(b) Quantity charge

In addition to the service charge, the quantity charge portion of each sewer bill is determined by applying the quantity charge rate shown below to all water use. In addition, the quantity charge will also include a TAP Rate Rider Surcharge, as set forth in Section 10.

1 Mcf = 1,000 Cubic Feet = 7,480 gallons

(1) Effective September 1, ~~2024~~2025 and thereafter, the quantity charge shall be:

<u>Base Charge</u> <u>Per Mcf</u>	<u>TAP-R</u> <u>Per Mcf</u>	<u>Total Charge</u> <u>Per Mcf</u>
\$471.3911	\$4.405.67	\$45.5153.06

3.4 Surcharge.

(a) Effective September 1, ~~2024~~2025 and thereafter, the surcharge for wastewater by definition in excess of Normal Wastewater shall be fixed at ~~forty~~forty~~five~~five~~one~~one~~five~~five and ~~four~~four ~~tenths~~tenths cents (~~\$0.450514~~) per pound of pollutants received into the wastewater system in excess of 250 milligrams per liter of BOD₅ and ~~forty~~forty~~five~~five~~three~~three and ~~eight~~eight~~five~~five tenths cents (~~\$0.458535~~) per pound of pollutants received into the wastewater system in excess of 350 milligrams per liter of SS.

(b) The BOD₅ and SS of wastewater shall be determined from samples taken on the Customer's Property at any period or time and of such duration and in such manner as the Department may prescribe or at any place mutually agreed upon between the Customer and the Department. With prior written approval of the Department, the results of routine sampling and analyses by the Customer may be used in determining the amount of the surcharge.

(c) If, in the Department's judgment, sampling of wastewater is neither feasible nor practical, the Department, for billing purposes, may base BOD₅ and SS of the wastewater on sampling results for similar discharge and/or values obtained from technical literature.

(d) Customers discharging wastewater subject to the surcharge shall, as prescribed by the Department:

(1) Install and maintain such facilities for sampling and measuring the wastewater discharged from their properties; and

(2) Maintain such records and information deemed necessary for the determination of the surcharge.

(e) Customers, as required from time to time, shall file with the Department responses to a questionnaire establishing or revising pertinent information on the quantity of flow and the quality of wastewater and other data deemed necessary for the determination of the surcharge.

(f) Measurements, tests and analyses of the characteristics of wastewater subject to surcharge shall be determined in accordance with the latest edition of *Standard Methods for the Examination of Water and Wastewater*, published jointly by the American Public Health Association, the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

(g) The surcharge shall be applied to the total wastewater discharged less any portion excluded by the Department.

3.5 Sewer Credits.

Pursuant to Section 13-101(6) of the Philadelphia Code, the method of crediting water users' sewer bills for City water used but not discharged into the wastewater disposal system shall be as follows.

(a) Eligibility. Where commercial and industrial facilities that use City water do not discharge all of such water into the wastewater system, the quantity of such water may be excluded in determining the proper sewer charge, provided that:

(1) at least 5% of water used, or

(2) 225,000 cubic feet per year, whichever is less, is not discharged into the wastewater system.

(b) Determination of the Amount of Exclusion. To determine the amount of such exclusion the Customer shall install a meter or measuring device satisfactory to the Department provided that, if in the opinion of the Department, it is not feasible to install a

meter or measuring device, some other satisfactory method of measuring (“credit factor”) may be designated by the Department on application of the Customer.

(c) Fee for Application. When the Customer applies to the Department for a determination on the quantity of water to be excluded by some method other than metering of the sewer, or re-applies for a revised method measuring a larger quantity of water to be excluded, there shall be charge of one thousand ~~one-six~~ hundred and ~~ten~~fifty dollars (\$1,~~614~~50) for the review of such application.

(d) Effective Date of Credits and Approved Credit Factors. Credits on a water user’s sewer bills for quantities of water used but not discharged into the wastewater disposal system shall be effective from the submission date of an approved application. In order to be reviewed for approval, applications shall be complete, submitted on forms provided by the Department and shall be accompanied by a check payable to the City of Philadelphia in the amount required in Section 3.5(c). No credits shall be made retroactively.

(e) Review of Approved Credit Factors. The Department reserves the right to review approved credit factors. Customers may, from time to time, be required to submit current water use and sewer discharge information. Customers may also be required to submit new applications for the credit factor. Failure to comply with the Department’s requests for information or new applications may result in termination of the Customer’s credit factor.

(f) Failure to Inform the Department of Increased Sewer Use. Customers with credit factors who fail to inform the Department of increased discharges to the wastewater system shall be subject to the imposition of the full charges for sewer use based on total water usage from the most recent application date, with applicable interest. In addition, the Department may impose a fine of five hundred and ~~forty-ninety-five~~ dollars (~~\$595~~40) for each billing period from the application date.

4.0 STORMWATER MANAGEMENT SERVICE CHARGES

Charges for Stormwater Management Services (SWMS) supplied by the City of Philadelphia shall be effective September 1, ~~2024~~2025 as follows:

4.1 Charges.

All properties within the City shall be billed a SWMS charge.

4.2 Residential Properties.

All Residential Properties shall be charged a monthly SWMS charge and a monthly Billing and Collection charge as follows:

(a) Effective September 1, ~~2024~~2025 and thereafter all Residential Properties shall be charged the rates listed below:

SWMS

Billing & Collection

| ~~\$18.47~~ 19.32

~~\$1.94~~ 2.06

(b) Residential Properties which do not have sewer service and which also have previously been charged only for water service shall be charged the rates shown above at 4.2 (a).

4.3 Non-Residential Properties.

Non-Residential Properties shall be charged a monthly SWMS charge and a monthly Billing and Collection charge as follows:

(a) Non-residential Properties shall be charged based on the Gross Area (GA) of the Property and the Impervious Area (IA) of the Property.

(1) GA includes all of the Property area within the legally described boundaries except streets, medians, and sidewalks in the public right-of-way and railroad tracks and station platforms in the railroad right-of-way.

(2) IA includes surfaces which are compacted or covered with material that restricts infiltration of water, including semi-pervious surfaces such as compacted clay, most conventionally hard-scaped surfaces such as streets, driveways, roofs, sidewalks, parking lots, attached and detached structures, and other similar surfaces.

(i) For Non-residential Properties with less than 5,000 square feet GA, the IA shall be estimated as a percentage of GA.

(A) For Undeveloped Property as defined in Section 1.0, the IA shall be 25% of the GA.

(B) For other Properties, the IA shall be 85% of the GA.

(3) In determining the GA Factor and IA Factor of a Property for the SWMS charge, the Department shall use increments of 500 square feet rounding up to the next highest increment.

(4) Calculating the Monthly SWMS charge. The monthly SWMS charge for each Non-residential Property is calculated by:

(i) dividing the GA in square feet by 500 and rounding up to the next whole unit to determine the GA Factor, then multiplying the GA Factor by the GA Rate to determine the GA charge;

(ii) dividing the IA in square feet by 500 and rounding up to the next whole unit to determine the IA Factor, then multiplying the IA Factor by the IA Rate to determine the IA charge;

(iii) the addition of the GA charge and the IA Charge equals the SWMS charge; and

(iv) the addition of the SWMS charge and the Billing and Collection charge together equals the total monthly stormwater charge.

(5) Rates for GA, IA and Billing and Collection.

(i) Effective September 1, ~~2024-2025~~ and thereafter, the Rates shall be as follows:

<u>GA</u> (\$/500 s.f.)	<u>IA</u> (\$/500 s.f.)	<u>Billing & Collection</u>
0. 862927	6. 309519	\$2. 5267

(6) Minimum Monthly Charges. Non-residential Properties shall be subject to a minimum monthly charge. If the monthly charge calculated in Section 4.3(a)(4) is less than the monthly charges listed below then the monthly charges below shall be billed to the Property.

<u>SWMS</u>	<u>Billing & Collection</u>
\$18.4719.32	\$2.522.67

(7) Adjustment Appeal Procedure.

(i) Customers may appeal the GA and/or IA calculations, property classification, or charge distribution of their property.

(ii) Adjustments shall be made using forms and procedures as defined by the Credits and Adjustment Appeals Manual and sent to:

Philadelphia Water Department
 SWMS Charge Appeals
 1101 Market Street
 4th Floor

Philadelphia, PA 19107-2994

(iii) Adjustments to the GA and/or IA determination are separate and distinct from the billing review procedures established by Section 19-1702 of the Philadelphia Code.

(iv) The grounds supporting the adjustment shall be stated in writing, and include any exhibits, such as photographs, drawings or maps, site plans, and affidavits that support the claim. In addition, a land survey prepared by a registered surveyor shall be attached showing all Dwelling Units, total property area, type of surface material and impervious area, as appropriate, and any other information requested in writing by the Department. The Department may waive the submission of a land survey, if the Department determines that the survey is not necessary to make a determination on the appeal.

(v) The Customer filing the appeal is solely responsible to demonstrate, by clear and convincing evidence, that the GA and/or IA square footage information used by the Department, from which the adjustment appeal is being taken, is erroneous.

(vi) The filing of a notice of an adjustment appeal shall not stay the imposition, calculation or duty to pay the SWMS charge.

(vii) If the adjustment appeal results in a revised GA and/or IA calculation, correction of property classification, correction of parcel identification, or revisions to the default charge allocation, then the adjusted SWMS Charge will be effective from the date of receipt of the Adjustment Appeals Application; except that the Department may authorize WRB to credit accounts for adjustments to the GA and/or IA calculation for a period not to exceed three years prior to receipt of the Adjustment Appeals Application if the Customer filing the appeal demonstrates, by clear and convincing evidence, that it was eligible for and qualified to receive the adjustment during the three year period prior to the receipt of the Adjustment Appeals Application was incorrect.

(8) Multiple Accounts Serving One Property. Where there are multiple water accounts on a single Property, the entire SWMS charge of that Property shall be divided equally among the accounts. Each account shall also be billed a Billing and Collection charge. Property Owners shall have the opportunity to request an alternative allocation of the SWMS Charge.

4.4 Condominium Properties.

(a) Condominium Properties shall be charged SWMS and Billing and Collection charges on the same terms as Non-residential Properties under Section 4.3, but shall be billed as follows:

(1) Condominium Properties with a single water meter account shall be billed such that the entire SWMS charge of the condominium complex property plus a Billing and Collection Charge are billed to that single account.

(2) Condominium Properties with individual water meter accounts for each unit shall be billed such that the entire SWMS charge of the condominium complex property shall be divided and billed equally to each individual account. In addition, each account shall be billed a Billing and Collection Charge.

(3) Condominium Properties with more than one water meter, but without individual water meters for each unit, shall be billed such that the entire SWMS charge of the condominium complex property shall be divided equally among the accounts. Each account shall also be billed a Billing and Collection Charge. The Condominium Owner's Association shall have the opportunity to request an alternative allocation of the SWMS charge.

4.5 SWMS Credits

(a) Eligibility.

(1) Accounts on Non-residential and Condominium properties must be current to be eligible for credits.

(2) The Customer shall make the Property available for inspection by the Department and provide all necessary documentation for purposes of verifying the appropriateness of a SWMS credit(s).

(3) The Customer shall fulfill credit requirements, as described in Section 4.5(c) below, in accordance with the maintenance guidelines as prescribed by the Department, including any and all inspection and reporting obligations.

(b) Classes of Credits. There are three classes of credits: IA Credit, GA Credit, and NPDES Credit. The IA Credit provides a reduction to the IA Charge; the GA Credit provides a reduction to GA Charge; and the NPDES Credit provides reduction to the total SWMS Charge. A Property may be approved for credits from each of the three classes; however, if the resulting SWMS Charge after the application of any credits is less than the Non-residential minimum monthly charge, then the minimum monthly charge will apply.

(c) Credit Requirements.

(1) IA Credit. IA Credit is available for the portion of IA on a property where stormwater runoff is managed (IA Managed). IA Managed is achieved as follows:

(i) For areas of the property that meet the requirements of the following Impervious Area Reductions (IAR), as described in the Stormwater Credits and Adjustment Appeals Manual, a direct reduction in the billable IA may be applied:

- (A) Rooftop disconnection,
- (B) Pavement disconnection, or
- (C) Tree canopy coverage.

(ii) For Properties with PWD-approved Stormwater Management Practices constructed per Chapter 6 of the Department's regulations, the customer must demonstrate compliance with the regulations, including management of the first 1.5 inches of runoff and any and all required reporting, inspection and maintenance activities, except as otherwise provided in 4.5(c)(1)(iv).

(iii) For properties with PWD-approved Stormwater Management Practices, including those constructed with Department stormwater grant funds, the customer must demonstrate management of the first 1.5" of runoff and SMP compliance per the approved record drawing and any and all reporting, inspection and maintenance activities, except as otherwise provided in 4.5(c)(1)(iv).

(iv) The Department may approve a Property for IA credit for Non-Surface Water Discharges under the credit requirements in effect before September 1, 2021, if the Department receives a credit application for that Property on or before September 1, 2021. Such Properties property receiving credit under the credit requirements in effect before September 1, 2021 may continue to receive the credit under those requirements until the credit expires. Upon expiration of the credit, the current or future Property Owners of such Properties may renew the credit under the credit requirements in effect before September 1, 2021 by submitting a renewal application(s) in accordance with Subsection 4.5(f)(4) unless and until this section is modified.¹

(v) For Surface Discharges, the Customer must demonstrate that a portion or all of the impervious area discharges directly to a surface water body.

(2) GA Credit.

(i) Impervious area only. Impervious area shall receive a GA credit based on the criteria defined in Section 4.5(c)(1)(ii), (iii), (iv) and (v) herein.

(ii) Open Space area only. Open Space area is non-impervious area and is calculated as GA minus IA. The Customer must demonstrate a Natural Resource Conservation Service Curve Number (NRCS-CN) below a certain value as described in the Credits and Adjustment Appeals Manual.

¹ Prior to September 1, 2021, Customers of Properties with non-Surface Discharges were required to demonstrate management of the first inch of stormwater runoff in one of the three following ways: (1) infiltration, (2) detention and slow release, and/or (3) routing through an approved volume -reducing SMP.

(3) National Pollutant Discharge Elimination System (NPDES) Credit. The Customer must demonstrate the property is subject to and in compliance with a NPDES Permit for industrial stormwater discharge activities.

(d) Credit Maximum.

(1) IA Credit Maximum. IA Credit maximums shall apply as follows:

(i) All Non-residential and Condominium properties are eligible for a maximum of 80% IA Credit for the IA Managed.

(ii) A Non-residential or Condominium property with Surface Discharge is eligible for a maximum of 90% IA credit for the IA Managed.

(2) GA Credit Maximum. GA Credit maximums shall apply as follows:

(i) All Non-residential and Condominium properties are eligible for a maximum of 80% GA Credit.

(ii) A Non-residential or Condominium property with Surface Discharge is eligible for a maximum of 90% GA credit.

(3) NPDES Credit Maximum. Eligible properties shall receive a maximum of 7% NPDES credit as described in the Credit and Adjustment Appeals Manual.

(e) Application of Credits

The application of the three classes of credits in calculating a property's monthly SWMS charge shall be described in the Credits and Adjustment Appeals Manual.

(f) Administration of Credits.

(1) A Customer shall apply for credits using application forms and submitting the required documentation as defined in the Credits and Adjustment Appeals Manual.

(2) Any engineering or other costs incurred in completing the application shall be borne by the Customer.

(3) Credits shall be effective upon receipt of a complete application.

(4) All credits shall expire four (4) years from the effective date of the credit. A Customer may renew credits by submitting a renewal application, documentation required by the Department as defined in the Credits and Adjustment Appeals Manual, and paying a renewal fee of ~~three-five~~ hundred and ~~fiftyninety~~-five dollars (~~\$5395~~).

(g) Termination of Credits.

(1) The Department may review any approved credit at any time to verify its continued applicability. Customers may from time to time be asked to submit documentation and/or grant access to the Property receiving the credit. Failure to comply with such requests may result in the termination of the credit(s).

(2) The Customer's failure to meet credit requirements or comply with inspection and reporting obligations, in accordance with Section 4.5(a)(3), shall result in a suspension or revocation of all affected credits pursuant to the procedures issued by the Department.

(h) The Department may, at its sole discretion, issue stormwater credits to individual parcels where stormwater management is being implemented on a shared, collective basis by an organization representing different parcel owners within a defined geographic area.

5.0 BILLING FOR WATER, SEWER AND STORMWATER SERVICE

5.1 Billing.

(a) Estimated Usage and Billing. When an accurate meter reading cannot be obtained at the time of a scheduled meter reading or when necessary for administrative purposes, the quantity of water used may be estimated for billing purposes. Estimated usage will be based upon actual meter readings from prior cycles or by such other fair and reasonable methods as shall be approved by the Water Commissioner. Where the water usage is estimated because of inability to read the meter, any necessary corrections shall be made at the time of the next actual meter reading, or when appropriate.

(b) Charges to be Combined. At the discretion of the Water Commissioner, each bill may combine in one amount the service charge and any quantity charges for water, sewer and stormwater, if applicable.

(c) Bills Due and Payable. All bills are due and payable when rendered.

(d) Penalties for Late Payments.

(1) If current water, sewer, and stormwater bills are not paid within thirty (30) days from the date indicated on the bill, a penalty of five percent (5%) shall be imposed.

(2) An additional penalty of one half of one percent (0.5%) shall be imposed and added to water, sewer, and stormwater bills, ~~and their penalties~~, on the due date of the bill of each succeeding cycle, except that a period of thirty (30) days shall elapse before the first additional penalty is imposed.

(3) If any water, sewer, and stormwater bill remains unpaid for two cycles after the bill has been rendered, the Revenue Department shall serve a notice of termination upon

the delinquent Property Owner and, if the charge, with penalties thereon, is not paid within ten (10) days after such service of notice, the Department, in its discretion, may suspend water service to the Property until the charge with penalties is paid. Penalties for late payment are set by ordinance, not by regulation, and any amendments to the current ordinance shall apply as provided therein.

(e) Balance Due. Each bill shall include any balances due for bills issued from October 1, 2000, including penalties.

(f) Changes in Meter Size. When a change in meter size is made, the charge for the new meter size shall become effective on the date of such change.

(g) Unmetered Customers.

(1) Unmetered Customers shall be billed the same charges established for metered Customers. The water and sewer service charges will be determined by the size of the meter which would be installed for an equivalent service at a similar property. The SWMS charges will be determined based on Section 4.0. The Revenue Department shall estimate the quantity of water used and bill accordingly using the applicable water and sewer quantity charges.

(2) Where unmetered wastewater is discharged to the sewer system without adequate sewer metering, the Department reserves the right to bill the amount of flow based upon its engineering judgment of a reasonable estimate of unmetered usage.

(h) Unoccupied Property.

The billing of unoccupied Properties for water and sewer shall be discontinued only on issuance of a Discontinuance of Water permit. Nothing in this Section shall relieve a Property Owner of his responsibility for maintaining a service line unless a Discontinuance of Water permit has been secured. Under no circumstances will the stormwater service charge be terminated.

(i) Extraordinary Uses or Appliances.

In the event that extraordinary or peculiar uses or appliances, in the opinion of the Water Commissioner, warrant a special charge not provided herein, such charges shall be as fixed by the Water Commissioner in writing.

5.2 Special Customers.

The water, sewer and stormwater management service charges established in Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq. shall be applied to all general Customers, except the following groups of special Customers:

(a) GROUP I

(1) Public and private schools which provide instruction up to or below the twelfth grade but not beyond that grade, and excluding service to any separate or adjoining facilities or structures not used exclusively for educational or instructional purposes.

(2) Institutions of “purely public charity”, as defined by ~~Pennsylvania law~~the Charity Water Rates and Charges Program Regulations in Chapter 2 of the Department’s regulations, except universities and colleges and excluding service to any separate or adjoining facilities or structures not used exclusively for the principal purpose of the charity.

(3) Places used for actual religious worship.

(b) GROUP II

(1) Residences of eligible senior citizens provided that the senior citizen shall:

(i) Make application for such reduction to the Revenue Department within the first billing period for which reduction is sought; and

(ii) Submit satisfactory proof that the applicant is 65 years of age or older and that he or she makes payment directly to the City for water, sewer, and stormwater service to his or her residence which is located in the City of Philadelphia; and

(iii) Submit satisfactory proof to the Revenue Department that the applicant does not exceed the household income limitation of \$38,800 per year established by the Department. The above income limitation shall apply to those applying for this discount subsequent to June 30, 1982.

(iv) Effective with each subsequent general rate change in the water/sewer/stormwater charges, the Department shall adjust the Senior Citizen Income Limitation using the latest Consumer Price Index data available, as defined in the Philadelphia Code at Section 19-1901.

(c) GROUP III

(1) Universities and colleges, excluding service to any separate or adjoining facilities or structures not used exclusively for educational or instructional purposes.

(d) GROUP IV

(1) Public housing properties of the Philadelphia Housing Authority.

(e) GROUP V

(1) Group V Customers are Customers enrolled in the Income-Based Water Revenue Assistance Program (IWRAP) described in Section 19-1605 of the Philadelphia Code after the Water Revenue Bureau begins to issue IWRAP bills. Monthly bills for a Customer enrolled in IWRAP will be determined based on the Customer's family size and household income and will be charged in lieu of the service, usage and stormwater charges established in Sections 2.0 et seq., 3.0 et seq. and 4.0 et seq. for general Customers. Group V Customers will pay a percentage of his/her household income depending on where that Customer falls within the Federal Poverty Guidelines (FPL), subject to a minimum bill amount of \$12 per month.

(2) For determining the amount of service, usage and stormwater charges on monthly bills, Group V Customers will be defined according to three income tiers as follows:

(i) Group V-A. Group V Customers whose gross household income has been verified as being from 0% of FPL and up to and including 50% of FPL

(ii) Group V-B. Group V Customers whose gross household income has been verified as being greater than 50% of FPL and up to and including 100% of FPL.

(iii) Group V-C. Group V Customers whose gross household income has been verified as being greater than 100% of FPL and up to and including 150% of FPL.

(f) GROUP VI

(1) Customers with parcels eligible for a discount from the stormwater management service charge as a qualified Community Garden pursuant to Section 19-1603 of the Philadelphia Code and regulations promulgated by the Water Department under that Section.

(g) GROUP VII

(1) All unoccupied properties of the Philadelphia Land Bank.

(h) Charges for Special Customers

(1) As of September 1, 2021, the charges to Groups I, II, and III of special Customers listed above shall be seventy-five percent (75%) of the charges as established in Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq., including both the water and sewer service and quantity charges, and the SWMS charges. The charges to Group IV Customers shall be ninety-five percent (95%) of the charges as established in Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq., including both the water and sewer service and quantity charges, and the SWMS charges.

(2) Group V Customers enrolled in IWRAP after the Water Revenue Bureau begins to issue IWRAP bills will be responsible for paying the following charges for service, usage and stormwater charges, or \$12 per month, whichever is greater:

(i) Group V-A: 2.0% of household income.

(ii) Group V-B: 2.5% of household income.

(iii) Group V-C: 3% of household income.

(3) Group VI: Effective with bills issued on or after January 1, 2017, Group VI special Customers will receive a 100% discount on the stormwater management service charges for parcels classified by the Department as Community Gardens upon approval of an application for a discount consistent with Section 19-1603 of the Philadelphia Code and regulations promulgated by the Department under that Section.

(4) Group VII: Effective with bills issued on or after September 1, 2018, Group VII special Customers are fully exempt from all water, sewer and stormwater management rates and charges.

(i) All of these special Customers shall meter all water connections and they shall be subject to all provisions herein not inconsistent with Sections 2.0 et seq., 3.0 et seq., and 4.0 et seq.

(j) All special Customers are subject at any time to review as to their special charges by the Department or the Water Revenue Bureau and may be required to furnish adequate evidence supporting the continuance of such charges to the Department or the Water Revenue Bureau upon written notice to do so. Failure to furnish such evidence shall be sufficient ground for denial or termination of such special charges.

(k) Special charges may be granted subject to the Department's review and approval of the size of the meter installed.

(l) When the special use for which the special charge is granted ceases, the special charge ceases and the charges for general Customers shall apply thereafter.

(m) When any vacant or unoccupied premises are acquired by the City, charges for water and sewer, including charges relating to storm water management and disposal, shall terminate on the date that such premises are acquired.

(n) When any property is acquired or held by the Philadelphia Housing Development Corporation or acquired or held by the City or the Redevelopment Authority pursuant to Chapters 16-400 or 16-500 of the Philadelphia Code, charges for water and sewer, including charges relating to storm water management and disposal, shall be abated.

5.3 Eligibility for Charity Rates and Charges.

~~The Department has promulgated regulations to manage the eligibility for and administration of Charity Rates and Charges. (a) Organizations seeking the Charity Rates and Charges must submit an application to the Department. Applicants must use forms provided by the Department, and submitted applications must be completed to the satisfaction of the Department.~~

~~(b) Applications must be made in the name of the organization seeking the Charity Rates and Charges. All accounts for which an organization is requesting the Charity Rates and Charges must be in the identical name as that on the application.~~

~~(c) Any account for a Property for which the Charity Rates and Charges are sought must be current and remain in good standing with no service violations or violations of the requirements of § 17-107(12) (“Recipients of Financial Assistance”) applicable to properties that benefit from financial assistance in connection with the receipt of charity rates and charges to maintain eligibility for any discounts issued herein. Any breach of this condition shall result in the loss of eligibility for the discount.~~

~~(d) To be eligible for water and sewer Charity Rates and Charges, the Property must not have any outstanding Department or Plumbing Code violations; the Property must have an operating water meter that is in compliance with current Department specifications, and the property must have a current water meter reading. If the property is receiving stormwater service only, the above provision regarding metering shall not apply. To be eligible for SWMS Charity Rates and Charges, the Property must not have any outstanding Department violations. Applicant must be either an owner of the Property or a Tenant of the property for which the SWMS charge is assessed.~~

~~(e) Charity Rates and Charges shall be charged to the eligible organization from the application date of an approved application. No retroactive reductions from the General Customer rates and charges will be permitted.~~

5.4 Account Review.

The Department, from time to time, may review the status of organizations —receiving Charity Rates and Charges.

During this review, eligible organizations may be required to submit new applications.

5.5 Suspension of Charity Rates and Charges (Groups I and III)

~~(a) Organizations that have been approved for Charity Rates and Charges must make timely payments on accounts in order to remain eligible for these discounted rates and charges.~~

~~(b) An organization that fails to make on-time payments for two (2) consecutive billing cycles shall be suspended from the Charity Rates and Charges, and shall be required to pay the same rate(s) as the General Customer rates and charges for all services. The suspension period shall remain in effect for a minimum of one (1) year.~~

~~(c) Reinstatement of the Charity Rates and Charges will not occur until a full year of on-time payments has been made. Suspended organizations must then submit an application as described in Section 5.3. Charity Rates and Charges will not be retroactive for the period of suspension.~~

~~(d) Customers shall be informed by first class mail of the suspension of the Charity Rates and Charges.~~

5.6 Hearing.

~~Organizations that have been denied eligibility or have been suspended from the Charity Rates and Charges may request an informal hearing.~~

5.57 No Waiver.

Nothing herein shall limit the Department on its own findings or at the request of another City agency from suspending Charity Rates and Charges from organizations which have violated City law or regulations and thereby under such City law or regulations have forfeited such privileges as the Charity Rates and Charges.

6.0 MISCELLANEOUS WATER CHARGES

Charges for miscellaneous water services supplied by the City of Philadelphia shall become effective September 1, ~~2024~~2025 as follows:

6.1 Meter Test Charges.

(a) A Customer may apply to the Department for a test of the accuracy of the registration of a water meter (Meter Test). At the Customer's request, the Department shall notify the Customer of the time and place of the test so that the Customer may be present.

(b) In testing, meters may be removed from the line and replaced by a tested meter. If removed, the meter shall be tested at the Department's Meter Shop. Meters may also be tested and recalibrated in place without removal and replacement.

(c) All meters shall be removed, replaced, tested or calibrated during the Department's regular business hours (9:00 a.m. to 4:45 p.m.).

(d) A Customer may request a Meter Test to be performed outside the regular business hours of the Department under the following conditions:

(1) the Department has staff available and agrees to a time outside the regular business hours of the Department; and,

(2) the Customer agrees to pay the overtime and added expenses, whether the meter passes or fails the test.

(e) If the register on the meter is found upon testing to be registering within two percent (2%) of the actual volume of water passing through the meter, or registering in favor of the Customer, the Customer will be assessed a Meter Test Charge as follows:

<u>Meter Size</u>	<u>Charge</u>
5/8"	\$ 140 <u>160</u>
1", 1-1/2", 2"	\$ 225 <u>190</u>
3", 4", 6", 8", 10", 12"	\$ 4 <u>2500</u>

Field Tests, 3" and above	\$ 4 <u>2500</u>

(plus any charges and/or expenses incurred for work performed outside the regular hours of business, if requested by the Customer).

(f) If the meter is found upon testing to be registering in excess of 102% of the actual volume of water passing through the meter, the Customer shall not be assessed a Meter Test charge as provided for in subsection (e); and, WRB shall review the billing history of the tested meter for a period not to exceed three years on the basis of the corrected registration and revise it as necessary.

(g) The Department will, at the request of a Customer, test his or her meter at no charge once every twenty years. Additional tests are subject to the charges listed in Section 6.1(e).

6.2 Charges for Furnishing and Installation of Water Meters.

The charges for furnishing and installing water meters are as follows.

(a) For work which involves the furnishing and setting of a water meter and meter interface unit (MIU), the following charges are hereby established:

<u>Meter Size</u>	<u>Charge</u>
5/8"	\$ 230 <u>300</u>
¾ RFSS	<u>540</u> 435
1"	<u>455</u> 395
1" RFSS	<u>565</u> 490
1 1/2"	<u>1,220</u> 875
1 1/2" RFSS	<u>1,040</u> 825
2"	1, <u>220</u> 055

2" RFSS	1,260,070
3" Compound	4,145,485
3" Turbine	2,045,910
3" Fire Series	4,105,820
4" Compound	4,830,495
4" Turbine	3,270,760
4" Fire Series	5,415,725
4" Fire Assembly	7,615,385
6" Compound	8,215,760
6" Turbine	6,180,200
6" Fire Series	6,255,205
6" Fire Assembly	11,975,120
8" Turbine	6,175,365
8" Fire Series	9,435,925
8" Fire Assembly	15,425,890
10" Turbine	10,590,960
10" Fire Series	11,645,760
10" Fire Assembly	22,340,630
12" Turbine	11,325,490
12" Fire Series	14,790,975
12" Fire Assembly	23,805,845

(b) For work which involves only the furnishing and setting of an MIU, the following charges are hereby established:

<u>Meter Size</u>	<u>Charge</u>
5/8"	\$ 100,75
3/4" RFSS	100,75
1"	150,25
1" RFSS	150,25
1 1/2"	150,25
1 1/2" RFSS	150,25
2"	150,25
2" RFSS	150,25
3" Compound	340,20
3" Turbine	340,20
4" Compound	340,20
4" Turbine	340,20
6" Compound	340,20
6" Turbine	340,20
8"	340,20
10"	340,20

(c) If extraordinary work is required in connection with the installation of a water meter or the replacement of a damaged meter, additional charges shall be computed using actual salaries and materials expended, plus applicable overhead costs.

(d) The Property Owner shall be responsible for safeguarding the meter and seals and shall pay for necessary repairs and replacements due to his/her failure to provide adequate protection to the meter and seals from theft, vandalism, freezing, tampering or other damage. The Property Owner shall also be responsible for the repair and maintenance of the plumbing accessory to the meter, such as inoperable valves, weakened service pipes and fittings, etc. and shall provide and pay for such plumbing, repair and maintenance as City metering needs may require.

6.3 Tampering of Meter.

(a) In the event that an investigation indicates that tampering of a meter has occurred, the following charges to the Customer shall be assessed:

<u>Meter Size</u>	<u>Charge</u>
5/8”or 3/4”	\$ 1190
1”, 1½”, 2”	1740
3” and larger	3850

6.4 Shut-Off and Restoration of Water Service.

(a) If the Department is required to visit a Property to shut off service for non-payment; and, payment is tendered at the time of the shut-off, a charge of ~~oneseventy-hundredfive~~ dollars (~~\$10075~~) will be assessed, with the exception stated in Section 6.4(e).

(b) A ~~oneseventy-hundredfive~~ dollar (~~\$10075~~) charge will be assessed if shut-off of the water service is required as a result of non-compliance with a Notice of Defect and/or metering non-compliance.

(c) After termination of water service for non-payment or violation of service requirements, restoration of water service will not be made until the following charges have been paid in full or payment arrangements satisfactory to the Revenue Department have been made.

(1) Where the only work required is operating the service valve:

(i) service lines 2” and smaller.....\$ ~~10075~~
with the exception stated in Section 6.4(e)

(ii) service lines larger than 2”.....\$ ~~38570~~

(2) Where the curb stop is obstructed, the access box missing or otherwise requires excavation\$79025

(3) Where the curb stop is inoperable and a new curb stop must be installed\$830765

(4) Where the curb stop is obstructed, the access box missing, or otherwise requires excavation, and replacement of footway paving is required.....\$805735

(5) Where the curb stop is inoperable and a new curb box must be installed and replacement of footway paving is required.....\$840775

(6) Where excavation and shut-off of the ferrule at the water main is required\$1,615505

(d) If the Department is required to remove concrete footway paving in order to perform the shut-off and/or restoration, the footway will be replaced by the Department and the preceding charges applied unless proof has been provided to the Department that some other qualified person will replace the paving.

(e) A charge of \$12 will be assessed if a Customer is enrolled in IWRAP and the Department is required to visit the Property to:

(1) shut off service for non-payment; and, payment is tendered at the time of the shut-off; or

(2) restore water service after termination of water service for non-payment or violation of service requirements.

6.5 Pumping of Properties.

The following charges shall apply for the pumping of water from properties when the condition requiring such service is not caused by the Department.

(a) Occupied Properties

(1) Pumping of water from occupied Properties may be done at the Property Owner's request and expense.

(2) Pumping of other Properties due to the failure of a Property Owner's piping may be performed by the Department and be charged to the Property Owner of the Property at which the failure occurred.

(3) Charges for pumping shall be calculated at actual salaries and materials expended, plus applicable overhead costs.

(b) Unoccupied Properties

The Department may, at its sole and exclusive discretion, pump water from unoccupied properties if it is determined that a serious condition exists. The charges for pumping shall be as specified in Section 6.5(a).

6.6 Charges for Water Main Shutdown.

(a) The Department of Licenses and Inspections shall issue permits for the temporary shutdown of a water main to allow a registered plumber to make immediate repairs to a broken water service and to avoid the necessity of opening the street.

(b) Permits shall be issued after:

(1) Certification by the Department that the shutdown will not seriously inconvenience other Customers; and

(2) The applicant has paid a three hundred and sixty dollar (\$360) service charge.

(c) In an emergency or when responsibility for a leak is in doubt, the Department may make the shutdown before the permit is obtained. If the Department determines that the leak was not the Department's responsibility, the owner shall obtain a permit and pay the above stated service charge and any other costs incurred by the Department in conducting the emergency shut down.

6.7 Water Connection Charges.

(a) Permits. Permits for connections to the City's water supply system shall be issued by the Water Permit section of the Department of Licenses and Inspections.

(b) Ferrule Connections.

(1) Connections between 3/4 inch and two inches (2") in diameter shall be made by a ferrule installed by the Department. The owner, at his own expense, shall excavate for the connection, install all piping and appurtenances after the ferrule and fill the excavation. The owner thereafter shall be responsible for maintaining this piping and appurtenance.

(2) The charges for such ferrule connections, with the exception stated in Section 6.7(b)(3), shall be as follows:

<u>Size</u>	<u>Charge</u>
3/4"	\$ 235 190

1"	26520
1½"	330265
2"	430335

(3) The charges for such ferrule connections, when the work performed at the Customer's request is not during the Department's regular business hours (9:00 a.m. to 4:45 p.m.), shall be as follows:

<u>Size</u>	<u>Charge</u>
¾"	\$26015
1"	29545
1½"	355290
2"	455360

(c) Valve Connections. Connections three inches (3") and larger shall be made by a valve installed by the Department. This valve installation shall include, but shall not necessarily be limited to, the connection to the main, the valve, valve box, necessary piping after the valve from the main in the street to one foot inside the curb, backfill and repaving. The Department shall thereafter be responsible for maintaining this valve and piping, unless the associated meter has been reduced at the Property Owner's request to a two inch (2") or smaller meter, in which case the Property Owner shall be responsible for valve and piping maintenance.

(1) The charges for valve connections shall, with the exceptions stated in Section 6.7(c)(2), shall be as follows:

<u>Size</u>	<u>Charge</u>
3" & 4"	\$14,3303,235
6" & 8"	15,5054,160
10" & 12"	18,9506,990

(2) The charge for such valve connections, when the work is performed at the Customer's request is during other than normal work hours or the work is performed in an area designated by the Streets Department as a special work zone, shall be as follows:

<u>Size</u>	<u>Charge</u>
3" & 4"	\$16,4255,290
6" & 8"	17,6006,215
10" & 12"	21,04519,040

(d) Attachment to a Transmission Main

(1) There shall be no connection to a transmission main without Department approval. Such approval shall be requested by application forms and procedures issued by the Department.

(2) Where a connection is made to a water main larger than 12 inches in diameter, with the exceptions stated in Sections 6.7(d)(3)&(4), the charges will be a follows:

SLEEVE 3" & 4"

MAIN

16"	\$24,8051,665
20"	27,9003,970
24"	30,91026,430
30"	47,28539,465
36"	56,69546,870

SLEEVE 6" & 8"

MAIN

16"	\$25,0951,895
20"	27,4403,660
24"	30,91026,430
30"	49,9901,595
36"	62,93051,775

SLEEVE 10" & 12"

MAIN

16"	\$25,1501,970
20"	28,7004,045
24"	30,91026,430
30"	50,99042,275
36"	66,81054,680

(3) The charges for such connections, when the work performed at the Customer's request is not during the Department's regular business hours (9:00 a.m. to 4:45 p.m.), or the work performed is in an area designated by the Streets Department as a special work zone, shall be as follows:

SLEEVE 3" & 4"

MAIN

16"	\$27,4254,230
20"	30,51526,535
24"	33,52528,995
30"	49,9002,030
36"	59,31049,440

SLEEVE 6" & 8"

MAIN

16"	\$27,7104,460
20"	30,05526,230
24"	33,52528,995
30"	52,60544,160
36"	65,55054,345

SLEEVE 10" & 12"

MAIN

16"	\$27,7654,540
20"	31,31526,615
24"	33,52528,995
30"	53,60544,845
36"	69,42557,245

(4) Where a connection is made to a water main 48" or larger in diameter, the charge will be that for a connection to a 36" main, stated above in Sections 6.7(d)(2) or (3), plus an additional charge representing the difference between the current cost of a 36" sleeve and the cost of the larger sleeve. The additional charge shall be paid before any permit can be issued as prescribed below in Section 6.11.

(e) Should police assistance for traffic control be required for a ferrule or valve connection, the Customer shall pay the required fee to the Police Department.

6.8 Discontinuance of Water.

Except as otherwise provided, no Customer shall be relieved of the obligation to pay water and sewer charges unless a permit for the discontinuance of water and sewer has been obtained from the Department of Licenses and Inspections pursuant to the provisions of Philadelphia Code section 19-1601. When a permit is granted to discontinue water and sewer service, charges shall terminate on the date of removal of the meter by the Department. The charge for a permit for discontinuance of water is one hundred dollars (\$100), regardless of service size. A validly issued permit to discontinue water and sewer does not terminate the obligation to pay for stormwater management services.

6.9 Hydrant Permits.

(a) A permit shall be obtained from the Water Permit section of the Department of Licenses and Inspections before a hydrant can be used. The permit shall contain the terms and conditions that are required of the Customer in order for the Customer to use the hydrant.

(b) The costs for obtaining a permit shall be as follows.

- | (1) One Week Permit for use of standard pressure hydrant.....\$ ~~2,245,690~~
- | (2) Six Month Permit for use of standard pressure hydrant.....\$ ~~12,345,815~~

6.10 Flow Tests.

When a Customer requests the Department to conduct a flow test on a fire hydrant to determine the volume and residual pressure available on a domestic or fire connection, or at a specific location, the charge shall be ~~six~~five hundred and ~~six~~eighty-five dollars (\$~~66,585~~) for each flow test.

6.11 Water Service Line Investigations and/or Inspections

When a Customer or a duly authorized representative of a Customer requests the Department to conduct an investigation to locate and/or to inspect the water service line at a specific location, the charge shall be one hundred and ~~forty~~sixty-five dollars (\$~~16,450~~) for each investigation or inspection. The charge shall be assessed regardless of the result of the investigation or inspection.

6.12 Payment.

All billings for the above services are due and payable when rendered, unless stated otherwise herein, and are subject to such penalties for late payment as is prescribed by current ordinance or as may be amended. Payments for permits shall be made in full prior to any permit being issued.

7.0 MISCELLANEOUS SEWER CHARGES

Charges for miscellaneous sewer services supplied by the City of Philadelphia shall be effective September 1, ~~2024~~2025, as follows.

7.1 Sewer Charges for Groundwater.

(a) Sewer charges for groundwater discharged to the City's sewer system shall be as follows:

(1) Effective September 1, ~~2024~~2025 and thereafter, the rate shall be \$~~14.81~~16.33 per 1,000 cubic feet.

(b) To determine the quantity of such discharged groundwater, the Customer shall install a meter or measuring device satisfactory to the Department. If, in the opinion of the Department, it is not feasible to install a meter or measuring device, the Department may designate some other method of measuring or estimating the quantity of discharged groundwater.

7.2 Charges for Wastewater Service.

(a) The charge for sanitary type wastewater delivered to any of the City's Water Pollution Control Plants shall be as follows.

(1) Effective September 1, 20~~25~~24 and thereafter, the rate shall be \$~~65.88~~76.10 per 1,000 gallons.

(b) Where accurate quantities of wastewater delivered cannot be determined, such quantities shall be estimated for billing purposes by such fair and reasonable methods as shall be approved by the Water Commissioner.

(c) The locations, times, delivery procedures and exact nature of the pollution characteristics of the delivered wastewater shall be determined by the Department.

(d) From time to time, Customers shall be required to file with the Department a questionnaire establishing or revising information on the quantity and quality of wastewater delivered and other pertinent data deemed necessary by the Department. Failure to furnish such information shall be sufficient grounds for denial or termination of delivery privileges.

(e) Measurements, tests and analyses of the characteristics of delivered wastewater shall be determined in accordance with the latest edition of *Standard Methods for the Examination of Water and Wastewater*, published jointly by the American Public Health Association, the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

(f) If any bill for the above services shall remain unpaid for more than sixty (60) days from date rendered, the Department may refuse acceptance of additional wastewater until all unpaid balances, with late charges, are paid in full.

7.3 Wastewater Discharge Permit.

All Industrial Users contributing wastewater to the City's sewer system must obtain a permit from the Department pursuant to the Wastewater Control Regulations in Chapter 5

of the Department's regulations. The fee for each new or renewal permit is ~~three-five~~ thousand ~~eight-three~~ hundred and ~~fortyeighty~~-five dollars (~~\$53,845,385~~).

7.4 Groundwater Discharge Permit.

All Industrial Users contributing groundwater to the City's sewer system must obtain a permit from the Department pursuant to the Wastewater Control Regulations contained in Chapter 5 of the Department's regulations. The fee for each new or renewal permit is ~~threetwo~~ thousand ~~two-eight~~ hundred and ~~fiftysixty~~ dollars (~~\$3,2502,860~~).

7.5 Manhole Pump-out Permit

(a) Any non-domestic User discharging wastewater from underground structures to the City's sewer system must obtain a manhole pump-out permit from the Department pursuant to the Wastewater Control Regulations in Chapter 5 of the Department's regulations. The fee for each new or renewal permit is ~~threetwo~~ thousand ~~onenine~~ hundred and ~~seventy-fivefifty~~ dollars (~~\$2,9503,175~~).

(b) In the event a User requests discharge locations in the City's separate sewer areas under this permit, the City may assess additional fees for any work associated with the review of this request and the identification of the discharge locations.

7.6 Trucked or Hauled Wastewater Permit

Any person trucking or hauling wastewater to the POTW must first obtain a septage discharge permit from the Department pursuant to the Wastewater Control Regulations in Chapter 5 of the Department's regulations. The fee for each new or renewal permit shall be ~~twoone~~ thousand ~~twosix~~ hundred and ~~fifty-fiveten~~ dollars (~~\$1,6102,255~~).

7.7 PHOTOGRAPHIC & VIDEO INSPECTION

When a Customer or a duly authorized representative of a Customer requests the Department to conduct a photographic or video inspection of a private sewer line at a specific location, the charge shall be two hundred and seventy five dollars (\$275) for each photographic or video inspection. The charge shall be assessed regardless of the result of the photographic or video inspection.

7.8 Payment.

All billings for the above services are due and payable when rendered, unless stated otherwise herein, and are subject to such penalties for late payment as is prescribed by current ordinance or as may be amended. Payments for permits shall be made in full prior to any permit being issued.

8.0 MISCELLANEOUS PLAN REVIEW AND INSPECTION CHARGES

8.1 Stormwater Plan Review and Inspection Fees.

All Development plans submitted to the Department under Chapter 6 of the Department's regulations for stormwater management approvals shall be subject to a plan review fee.

(a) Fees.

(1) A fee of one thousand ~~seven~~five hundred and ~~sixty-five~~fifteen dollars (\$1,~~765~~515) shall be due upon submission of the Conceptual Stormwater Management Plan for review.

(2) A fee of two hundred and ~~fifty~~twenty-five dollars (\$2~~5~~25) per hour of review time shall be due prior to issuance of the Post-Construction Stormwater Management Plan approval.

(i) Review time shall be based on the City's tabulation of actual hours expended by Department employees or consultants reviewing the plans associated with a particular development project for compliance with Chapter 6 of the Department's regulations.

(3) A fee of ~~four~~three hundred and ~~eighty~~-five dollars (\$~~403~~85) for the final inspection of a development project to confirm compliance with Chapter 6 of the Department's regulations shall be due prior to issuance of the Post-Construction Stormwater Management Plan approval.

(4) A fee is applicable when a reinspection of a site determines that a previously found violation of Erosion and Sediment (E&S) control requirements has not been corrected. Fees for subsequent inspections for a site found to be in continuing non-compliance shall be assessed as follows:

(i) Second Reinspection - A fee of one hundred and five dollars (\$1050) for the second reinspection

(ii) Third Reinspection - two hundred and ten dollars (\$2100),

(a) Fourth and Any Subsequent Reinspection – ~~and~~ three hundred and ~~fifteen~~ dollars (\$31550) is assessed for subsequent inspections where a site previous in violation of Erosion and Sediment (E&S) Controls requirements is found to be in continuing non-compliance.

(b) Refund of fees. The Department shall refund any fees specified above if a plan submittal is not approved or denied within 21 days for conceptual site plans and within 45 days for technical site plans.

8.2 Stormwater Management Fee in Lieu.

The fee in lieu shall be calculated as follows:

- (a) ~~(a)~~ For an exemption to only the Water Quality Requirement of Chapter 6 of the Department's regulations the fee in lieu shall be ~~fortythree-six~~ dollars (\$~~4036.00~~) per square foot based on the total Directly Connected Impervious Area within the limit of Earth Disturbance.

8.3 Utility Plan Review Fees.

All Utility Plans submitted to the Department to receive building permit approval in accordance with Administrative Code Section A-305.2.1.6 shall be subject to a plan review fee.

- (a) A fee of three hundred and ~~twenty-fifty~~ dollars (\$~~3520~~) shall be due upon submission of the Utility Plan for review.

~~(b) Parcels that qualify as Community Garden pursuant to Section 19-1603 of the Philadelphia Code are exempt from the Utility Plan Review Fee.~~

9.0 FIRE SERVICE CONNECTIONS

Fire service connection charges shall consist of a monthly service charge and a quantity charge and shall be effective September 1, ~~2024~~2025, as follows.

9.1 Charges.

- (a) Monthly Service Charges.

(1) The monthly service charges for the furnishing of water for the purpose of fire protection effective September 1, ~~2024~~2025 and thereafter, shall be as follows:

<u>Connection Size</u>	<u>Service Charge</u>
Up through 4-inch	\$ 28.06 <u>33.88</u>
6-inch	52.02 <u>63.64</u>
8-inch	78.31 <u>96.90</u>
10-inch	115.13 <u>141.86</u>
12-inch	182.34 <u>232.14</u>

- (b) The City may permit fire service connections to its water system outside the City of Philadelphia only in properties contiguous to the City where in the opinion of the Water Commissioner water service for fire protection may be furnished without interference with water service to properties within the City.

(c) Pipe connections to the Philadelphia water system, meters and other service requirements shall be in accordance with the standard fire service requirements of the Department.

(d) Quantity Charges.

(1) In addition to the service charge, the quantity charge portion of each bill is determined by applying the quantity charge rate shown below to all water use. In addition, the quantity charge will also include a TAP Rate Rider Surcharge, as set forth in Section 10.

Effective September 1, ~~2024~~2025 and thereafter, the quantity charge shall be as follows:

1 Mcf = 1,000 cubic feet = 7,480 gallons

<u>Monthly Water Usage</u>	<u>Base Charge Per Mcf</u>	<u>TAP-R Per Mcf</u>	<u>Total Charge Per Mcf</u>
First 2 Mcf (0 to 2 Mcf)	\$64.32 <u>72.45</u>	\$3.08 <u>87</u>	\$67.40 <u>76.32</u>
Next 98 Mcf (2.1 to 100 Mcf)	57.88 <u>64.76</u>	3.08 <u>87</u>	60.96 <u>68.63</u>
Next 1,900 Mcf (100.1 to 2,000 Mcf)	44.84 <u>50.16</u>	3.08 <u>87</u>	47.92 <u>54.03</u>
Over 2,000 Mcf	43.62 <u>50.16</u>	3.08 <u>87</u>	46.70 <u>54.03</u>

Note: Actual TAP-R rates are subject to Annual Reconciliation and the determination of the Rate Board.

(e) The provisions in this Section apply to all fire service connections.

9.2 Payment.

All billings for the above services are due and payable when rendered, unless stated otherwise herein, and are subject to such penalties for late payment as is prescribed by current ordinance or as may be amended. Payments for permits shall be made in full prior to any permit being issued.

10.0 PROVISIONS FOR RECOVERY OF THE TIERED ASSISTANCE PROGRAM (TAP) COSTS

The lost revenue related to TAP (the “TAP Costs”) will be recovered via a separate TAP Rate Rider Surcharge Rate (TAP-R), which would be added to the water, fire service and sewer quantity charge rate schedules. This TAP-R shall be increased or decreased for the

next rate period to reflect changes in TAP costs, and will be calculated and reconciled on an annual basis in the manner set forth below.

10.1 Computation of the TAP-R

(a) The TAP-R Equation

The TAP-R shall be computed to the nearest one-hundredth of a dollar per MCF (\$0.01/MCF) in accordance with the formula set forth below:

$$\text{TAP-R} = \frac{(C) - (E + I)}{S}$$

The TAP-R so computed, shall be applied as an adder to the water, fire service connection and sewer quantity charge base rate schedules set forth for water in Section 2.1 (c); sewer in Section 3.3 (b); and fire service in Section 9.1 (d), of these Rates and Charges. As a result, the TAP-R shall consist of two sub-components:

- (1) A “Water TAP-R” added to the water and fire service quantity “base rate” (\$/MCF); and
- (2) A “Sewer TAP-R” added to the sewer quantity “base rate” (\$/MCF).

During the rate periods that TAP-R is effective, to recover the TAP Costs through Water TAP-R and the Sewer TAP-R respectively, the total TAP Costs determined for a given rate period will be apportioned between water and wastewater utilities based on the proportion of water and wastewater net revenue requirement respectively to total net revenue requirement. The percent allocation of TAP Costs between water and wastewater utilities will be as follows:

- (i) Water TAP Cost Allocation: ~~42~~43%
- (ii) Sewer TAP Cost Allocation: ~~58~~57%

(b) Definitions

In computing the TAP-R pursuant to the formula above, the following definitions shall apply:

- (1) **TAP-R** - TAP Rate Rider Surcharge Rate (\$/MCF).
- (2) **C** – Cost in dollars of the estimated TAP Billing Loss for the projected period.

- (3) **E** - The net over or under collection of the TAP-R surcharge amount for the Most Recent Period. The net over or under collection will be calculated by comparing the actual TAP Revenue Loss (resulting from discounts provided to TAP Customers) with the actual TAP-R surcharge amounts billed to Non-TAP Customers. Both the TAP Revenue Loss and the TAP-R billings, that are determined for the rate periods, will be adjusted for collections by applying the Department's system-wide collection factor of ~~96.9996.93~~%.
- (4) **I** - Interest on any over or under recovery of the TAP-R for the Most Recent Period. Interest will be computed on a monthly basis using a simple annual interest rate. The interest rate will be based upon the yield to maturity of a particular date of United States Treasury securities with a constant maturity for a 1-year Treasury as compiled and published in the Federal Reserve Statistical Release H.15 (519) for the United States Treasury¹, as it exists each year as of the first day of the month, preceding the month of the annual reconciliation submission to the Rate Board.
- (5) **S** - Projected sales in MCF for Non-TAP customers.
- (6) **Most Recent Period** – The Current Fiscal Year and/or the period for which TAP-R reconciliation is performed.
- (7) **Next Rate Period** – The fiscal year and/or the period that immediately follows the Most Recent Period, and in which the TAP-R is effective.

10.2 Filing with the Philadelphia Water, Sewer and Storm Water Rate Board

The Water Department shall initiate the annual TAP Rate Rider Reconciliation by filing an advance notice with the Philadelphia Water, Sewer and Storm Water Rate Board (the "Rate Board") and City Council in accordance with the procedures and standards established by the Rate Board through its regulations.

10.3 TAP-R Surcharge Rates

(a) Water TAP-R

The Water TAP-R portion of each water bill is determined by applying the Water TAP-R surcharge rate shown below to all water use.

1 Mcf = 1,000 Cubic Feet = 7,480 gallons
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¹ Currently available at <https://www.federalreserve.gov/releases/h15/>.

- (1) Effective September 1, ~~2024-2025~~ and thereafter, the Water TAP-R surcharge shall be ~~\$3.08~~3.87 per Mcf as determined by the annual reconciliation filing.

(b) Sewer TAP-R

The Sewer TAP-R portion of each sewer bill is determined by applying the Sewer TAP-R surcharge rate shown below to all water use.

1 Mcf = 1,000 Cubic Feet = 7,480 gallons
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- (1) Effective September 1, ~~2024-2025~~ and thereafter, the Sewer TAP-R surcharge shall be ~~\$4.40~~5.67 per Mcf as determined by the annual reconciliation filing.