

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

In the Matter of the Philadelphia Water Department's Proposed Change in Water, Wastewater and Stormwater Rates and Related Charges	Fiscal Years 2019-2021
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Public Advocate Supplemental Response to Transcript Request 2

This response sets forth, for illustrative purposes, the manner in which the amount and allocation of cost recovery under the Public Advocate's proposed TAP Rider was determined for purposes of responding to Transcript Request #2. In order that the Public Advocate's proposal could be compared to PWD's revised proposal (as presented in its Rebuttal Testimony), the Public Advocate utilized assumptions available on the record of PWD's FY 2019-2021 Proposed Rate Increase Proceeding and applied those assumptions over the three years in PWD's rate proposal.

As discussed below, there are two sets of numbers that must be determined: (1) the allocation of TAP credit costs between water and sewer services; and (2) the allocation of arrearage forgiveness costs between water and sewer services. The percentage allocation of TAP credit costs and arrearage forgiveness costs is identical for TAP credit costs and for arrearage forgiveness costs. Accordingly, this explanation is divided into three sections:

- The derivation of the allocation percentages applied to both TAP credit costs and to arrearage forgiveness costs;
- The derivation of the TAP credit costs allocated using those percentages; and
- The derivation of the arrearage forgiveness costs allocated using those percentages.

The derivation of allocation percentages.

The first numbers explained involve the percentages used to allocate TAP credits and arrearage forgiveness credits between water and sewer services. These allocation percentages are straightforward.

The allocation is based on revenues presented by PWD in the instant rate case. The water revenue, by year for Fiscal Years 2019 through 2021, was presented in Tables W-6 of Schedule BV-E1 (PWD St. 9A). The sewer revenue, by year for the Fiscal Years 2019 through 2012, was

presented in Table WW-6 of Schedule BV-E1 (PWD St. 9A). The respective revenue, and thus the respective percentages, are set forth below:

Fiscal Year	Revenues \$s		Revenues %		
	Water	Sewer	Water	Sewer	Total
2019	\$283,027	\$446,950	38.77%	61.23%	100.00%
2020	\$285,521	\$464,879	38.05%	61.95%	100.00%
2021	\$289,039	\$485,771	37.30%	62.70%	100.00%

TAP credits and arrearage forgiveness credits are allocated between water and sewer given the percentages identified immediately above.

The Calculation of TAP Credits

The calculation of TAP credits as presented by PWD were accepted for purposes of these allocations. The TAP credits used in the allocation were as follows:

FY2019 \$9,795,656 /a/	FY2020 \$13,731,575 /b/	FY2021 \$17,016,262 /c/
SOURCE:		
/a/ PA-V-54, "Models," Column F, Line 26.		
/b/ PA-V-54, "Models," Column F, Line 38.		
/c/ PA-V-54, "Models," Column F, Line 50.		

For purposes of this rate case, the figures of \$9.8 million; \$13.7 million; and \$17.0 million have been advanced by PWD as the level of expected TAP credits. The Public Advocate has accepted those numbers as the total TAP credit costs for this allocation presentation.

Each number was reduced by 13.1% to account for the embedded lost revenue documented in Mr. Colton’s Direct Testimony. As a result, the total CAP credit costs to be allocated in rates are calculated by multiplying PWD’s figures by (1 - 0.131).

Fiscal Year	TAP Discounts	Embedded Lost Revenue	TAP Credits Minus Embedded Lost Revenue
2019	\$9,800,000	13.1%	\$8,516,200
2020	\$13,700,000	13.1%	\$11,905,300
2021	\$17,000,000	13.1%	\$14,773,000

Calculation of Arrearage Forgiveness Costs.

In order to have arrearage forgiveness costs mirror the assumptions of PWD's own calculation of TAP credit costs to the maximum extent possible, the Public Advocate used the same "model" used by PWD in PWD's calculation of TAP credit costs. The spreadsheet setting forth TAP credit costs was duplicated for purposes of calculating Arrearage Forgiveness costs. Accordingly, the exact same TAP participants were used, as were the exact same additions of TAP participants (and their timing).

As with PWD's calculation of TAP credit costs, an average per participant cost was calculated for Arrearage Forgiveness. It is this calculation which is the primary focus of this explanation. The calculation of an average Arrearage Forgiveness cost per participant was calculated using the following steps:

- The number of new enrollees with pre-existing arrearages (5,932) and the arrearages at the time of enrollment (\$20,808,473) were obtained from PWD's response to PA-III-15. Using these two numbers, an average arrearage at the time of enrollment was calculated as \$3,508 ($\$20,808,473 / 5,932 = \$3,507.83$).
- The number of total TAP enrollees for the same time period (6,870) was obtained from PWD's response to PA-III-2. The percentage of TAP enrollees with arrearages at the time of enrollment was thus 86.3% (5,932 enrollees with pre-existing arrears / 6,870 total enrollees = 0.863). The average arrears was thus multiplied by 86.3% to reflect the fact that the average arrearage spread over all enrollees rather than being spread over only those enrollees with arrearages would be less. Accordingly, the average arrears spread over all enrollees is \$3,028.89 ($\$3,507.83 \times .863 = \$3,028.89$).
- This arrearage was reduced to reflect the adjustment for embedded lost revenue as documented in Mr. Colton's Direct Testimony (90.66%). The resulting arrearage level was \$282.90 ($\$3,028.89 \times (1 - 0.9066) = \282.90).
- Since arrears are proposed to be forgiven over a 24 month period, this total arrearage forgiveness figure was divided by 24 to obtain a monthly forgiveness amount. The resulting figure was \$11.79/month ($\$282.90 / 24 = \11.79).

The \$11.79 is then multiplied by the total number of TAP participants in any given month. Given that arrearages are proposed to be forgiven only when complete payments are made, and there is no basis to assume anything other than 100% complete payment, it is assumed that 100% of payments are made in a complete fashion. In addition to lacking a basis for a different assumption, this assumption provides the maximum possible arrearage forgiveness cost.

Finally, given that arrearages are forgiven over a 24 month period, starting in Month 25, the number of TAP participants entering the program in Month 1 is subtracted from the total number of TAP participants receiving arrearage forgiveness. As of Month 24, in other words, the total possible arrearage forgiveness will have been earned and credited to their accounts. In Month 26, the total number of TAP participants entering the program in Months 1 and 2 are subtracted from the participants earning arrearage forgiveness. This pattern continues through the three fiscal years (e.g., in Month 27, the number of participants entering TAP in Months 1 – 3 is subtracted).

The TAP arrearage forgiveness costs are then summed for the same periods that PWD summed the TAP credit costs. The resulting TAP arrearage forgiveness costs are as follows:

FY2019	FY2020	FY2021
\$2,026,423 /a/	\$2,058,471 /b/	\$1,493,724 /c/
SOURCE: /a/ "Arrs Forgiveness Model--RDC," Column F, Line 26. /b/ "Arrs Forgiveness Model--RDC," Column F, Line 38. /c/ "Arrs Forgiveness Model--RDC," Column F, Line 50.		

Final Results

The final allocations which were provided to PWD for purposes of responding to Transcript Request #2 are as follows:

	TAP Discounts		Arrears Forgiveness		Total	
	Water	Sewer	Water	Sewer	Water	Sewer
2019	\$3,301,905	\$5,214,295	\$785,522	\$1,240,478	\$4,087,426	\$6,454,774
2020	\$4,529,868	\$7,375,432	\$783,052	\$1,274,948	\$5,312,920	\$8,650,380
2021	\$5,510,994	\$9,262,006	\$557,329	\$936,671	\$6,068,323	\$10,198,677

RESPONSE PROVIDED BY: Roger Colton