



**Teresa K. Harrold**  
Director, Corporate Counsel  
852 Wesley Drive | Mechanicsburg, PA 17055  
Phone: 717-550-1562 | Fax: 717-550-1255  
[teresa.harrold@amwater.com](mailto:teresa.harrold@amwater.com)

VIA eFiling

March 2, 2022

Rosemary Chiavetta, Secretary  
Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

Re: Pennsylvania-American Water Company ("PAWC")  
2021 Wastewater Annual Asset Optimization Plan  
Docket No. M-2022-\_\_\_\_\_

Dear Secretary Chiavetta:

Enclosed for filing is Pennsylvania-American Water Company's 2021 Wastewater Annual Asset Optimization Plan ("AAOP") in compliance with 66 Pa.C.S. § 1356.

A copy of the AAOP has been served upon the parties listed on the enclosed Certificate of Service. Should you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Teresa Harrold".

Teresa K. Harrold

Enclosures

cc: Certificate of Service  
K. Shaffer w/Enc. VIA E-mail

## Pennsylvania-American Water Company 2021 Wastewater Annual Asset Optimization Plan

### Introduction:

Pennsylvania-American Water Company (PAWC) files this Annual Asset Optimization Plan (AAOP) for its Wastewater Operations in compliance with 66 Pa C.S. § 1356. This section requires a utility with an approved distribution system improvement charge (DSIC) and a long-term infrastructure improvement plan (LTIIP) to file an AAOP. PAWC received approval for its modified Wastewater DSIC and 2015-2023 LTIIP from the Pennsylvania Public Utility Commission (“Commission”) in an Order dated April 16, 2020 at Docket No. P-2014-2431005.

The AAO Plan contained herein has the following elements:

- 1) A description of all eligible property repaired, improved and replaced in the preceding 12 months, pursuant to the utility’s long-term infrastructure improvement plan and the prior year’s asset optimization plan; and
- 2) A detailed description of all facilities to be improved in the upcoming 12 months.

### **Description of PAWC’s Wastewater Systems (DSIC eligible)**

TOTAL (EOY 2020)							
District #	District Description	Gravity Main (LF)	Force/Low Pressure Main (LF)	Manholes	Valves	Lift Stations	No. Customers as of 12/31/2021
2469	Blue Mountain Lake	0	68,252	0	121	6	876
2469	Lehman Pike WW - Saw Creek-Marcel Lakes	39,499	317,135	161	409	17	3,199
2458	Pocono Country Place (Pocono)	150,649	99,798	777	7	2	3,820
2426	Claysville	59,243	1,149	342	0	1	497
2467	Coatesville	653,612	128,589	3,166	19	25	10,630
2447	Clarion	207,596	36,385	969	9	6	2,484
2436	Marcel Lakes	30,732	28,597	130	114	3	360
2492	SCRANTON WW	1,735,739	12,276	9,429	0	7	29,714
2412	McKeesport	927,783	34,259	4,615	17	11	10,622
2483	FRANKLIN WW	56,584	12,423	198	10	1	348
2485	MCEWENSVILLE WW	12,669	1,242	57	0	4	128
2487	NEW CUMBERLAND WW	144,723	6,899	611	0	3	3,092
2435	KOPPEL WW	26,986	0	116	1	0	354
2460	FAIRVIEW WW	363,255	33,384	1,929	3	17	4,108
2438	PAINT ELK TWP WW	90,051	21,323	420	54	6	428
	<b>Total</b>	<b>4,499,119</b>	<b>801,711</b>	<b>22,920</b>	<b>764</b>	<b>109</b>	<b>70,660</b>

## Long Term Infrastructure Plan Summary

PAWC has continuously invested in its wastewater infrastructure to maintain safe, reliable service to its customers. From 2015 through 2021, PAWC has consistently invested in wastewater infrastructure. The chart below compares the actual to projected cumulative expenditures during 2015 to 2021.

Projected Annual Expenditures 2015 to 2023				
Year	Projected Annual Expenditures <sup>(1)</sup>	Projected Cumulative Expenditures	Actual Annual Expenditures	Actual Cumulative Annual Expenditures
2015	\$5,265,244	\$5,265,244	\$8,923,443	\$8,923,443
2016	\$5,290,000	\$10,555,244	\$5,509,055	\$14,432,498
2017	\$5,682,655	\$16,237,899	\$8,416,554	\$22,849,052
2018	\$5,097,241	\$21,335,140	\$4,810,440	\$27,659,492
2019	\$33,870,930	\$55,206,070	\$32,877,761	\$60,537,253
2020	\$18,184,674	\$73,390,744	\$27,652,414	\$88,189,667
2021	\$20,351,465	\$93,742,209	\$25,594,318	\$113,783,985
2022	\$19,495,725	\$113,237,934		
2023	\$23,839,525	\$137,077,459		
<b>Total</b>	<b>\$137,077,459</b>		<b>\$113,783,985</b>	

## Summary of Wastewater DSIC-eligible expenditures – Calendar year 2021

District	Actual Expenditures 2021
Blue Mountain Lake - 76	\$0
Lehman Pike & Marcel Lakes - 69	\$343,436
Pocono - 58	\$270,782
Claysville - 26	\$0
Coatesville -67	\$1,910,615
Clarion - 47	\$1,421,210
SCRANTON WW - 92	\$13,305,567
McKeesport - 12	\$4,984,883
FRANKLIN WW - 83	\$439,208
MCEWENSVILLE WW - 85	\$180
NEW CUMBERLAND WW - 87	\$1,396,216
KOPPEL WW - 35	\$1,148,520
FAIRVIEW WW - 60	\$277,941
PAINT ELK TWP WW - 38	\$95,761
<b>Total</b>	<b>\$25,594,318</b>

## Detailed Project Listing of Wastewater-DSIC eligible projects – Calendar year 2021 Actual

District	Funding Project Number		Description:	Installed Quantity	Capital Investment 2021
<b>Clarion WW</b>					
47	R24-47B1		Sewer line replacement projects (including manholes and laterals)	4,236 ft	\$1,223,758
47	R24-47C1		Emergency sewer main replacement work.	8 ft	\$31,593
47	R24-47D1		Carry over cost for Sewer line relocation projects from a prior year	0 ft	\$102,037
47	R24-47F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	42	\$28,956
47	R24-47H1		Lateral replacements at locations determined to be deficient during annual inspection program.	48	\$34,866
47	R24-47Q1		Process Plant Facilities and Equip - Lift Stations		
<b>47 Total</b>		<b>Clarion WW</b>		<b>4,244 ft</b>	<b>\$1,421,210</b>
<b>Pocono WW</b>					
58	R24-58B1		Carry over cost for Sewer line replacement projects from prior year	0 ft	\$205,243
58	R24-58C1		Credit for Overstated Emergency sewer main replacement work from prior year.	0 ft	(\$65)
58	R24-58H1		Lateral replacements at locations determined to be deficient during annual inspection program.	26	\$65,604
<b>58 Total</b>		<b>Pocono WW</b>		<b>0 ft</b>	<b>\$270,782</b>
<b>Coatesville WW</b>					
67	R24-67B1		Sewer line replacement projects (including manholes and laterals)	4,910 ft	\$1,576,003
67	R24-67C1		Emergency sewer main replacement work.	18 ft	\$73,411
67	R24-67F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program.	9	\$32,446
67	R24-67H1		Lateral replacements at locations determined to be deficient during annual inspection program.	78	\$195,225
67	carry over		West End Trunk Line Phase3-6		\$33,529
<b>67 Total</b>		<b>Coatesville WW</b>		<b>4,928 ft</b>	<b>\$1,910,615</b>
<b>Lehman Pike WW</b>					
69	R24-69B1		Sewer line replacement projects (including manholes and laterals)	0	\$0
69	R24-69C1		Emergency sewer main replacement work.	7 ft	\$28,727
69	R24-69F1		Valve replacements at locations determined to be deficient	1	\$569
69	R24-69H1		Lateral replacement project	125	\$314,139
<b>69 Total</b>		<b>Lehman Pike WW</b>		<b>7 ft</b>	<b>\$343,436</b>
<b>Scranton WW</b>					
92	R24-92B1		Sewer line replacement projects (including manholes and laterals)	11,432 ft	\$5,604,400
92	R24-92C1		Emergency sewer main replacement work.	566 ft	\$2,338,653
92	R24-92D1		Sewer line relocation projects (including manholes and laterals)	0 ft	\$0
92	R24-92F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	409	\$1,446,495
92	R24-92H1		Lateral replacements at locations determined to be deficient during annual inspection program.	323	\$847,875
92	carry over		Outfall #022 - Washburn Street		\$1,418,986
92	carry over		misc projects		\$1,649,158
<b>92 Total</b>		<b>Scranton WW</b>		<b>11,998 ft</b>	<b>\$13,305,567</b>

Continued on next page

**Detailed Project Listing of Wastewater-DSIC eligible projects – Calendar year 2021 Actual  
(Continued)**

<b>McKeesport WW</b>					
12	I24-120014		4KK Spring St	789 ft	\$949,407
12	R24-12B1		Sewer line replacement projects (including manholes and laterals)	4,720 ft	\$1,504,384
12	R24-12C1		Lateral replacements at locations determined to be deficient during annual inspection program.	238 ft	\$954,319
12	R24-12D1		Sewer line relocation projects (including manholes and laterals)	995 ft	\$1,181,673
12	R24-12F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	96	\$389,265
12	R24-12H1		Lateral replacements at locations determined to be deficient during annual inspection program.	5	\$11,388
12	carry over		misc projects		(\$5,553)
<b>12 Total</b>		<b>McKeesport WW</b>		<b>6,743 ft</b>	<b>\$4,984,883</b>
<b>FRANKLIN WW</b>					
83	R24-83B1		Sewer line replacement projects (including manholes and laterals)	6,501 ft	\$439,208
<b>83 Total</b>		<b>FRANKLIN WW</b>		<b>6,501 ft</b>	<b>\$439,208</b>
<b>McEwensville WW</b>					
85	R24-85F1		Carry over cost for Manhole replacements from prior year		\$180
<b>85 Total</b>		<b>McEwensville WW</b>			<b>\$180</b>
<b>Cumberland WW</b>					
87	R24-87B1		Sewer line replacement projects (including manholes and laterals)	23,797 ft	\$1,332,462
87	R24-87C1		Emergency sewer main replacement work.	10 ft	\$40,503
87	R24-87H1		Lateral replacements at locations determined to be deficient during annual inspection program.	9	\$22,970
87	carry over		misc projects		\$281
<b>87 Total</b>		<b>New Cumberland WW</b>		<b>23,807 ft</b>	<b>\$1,396,216</b>
<b>Koppel WW</b>					
35	R24-35B1		Sewer line replacement projects (including manholes and laterals)	3,305 ft	\$1,186,893
35	R24-35F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program.	15	\$63
35	R24-35H1		Lateral replacements at locations determined to be deficient during annual inspection program.	40	(\$419)
35	carry over		misc projects		(\$38,017)
<b>35 Total</b>		<b>Koppel WW</b>		<b>3,305 ft</b>	<b>\$1,148,520</b>
<b>Fairview WW</b>					
60	R24-60B1		Sewer line replacement projects (including manholes and laterals)	5,752 ft	\$270,593
60	R24-60C1		Emergency sewer main replacement work.	1 ft	\$3,589
60	R24-60F1		Valve replacements at locations determined to be deficient	1	\$1,336
60	R24-60H1		Lateral replacements at locations determined to be deficient during annual inspection program.	1	\$2,423
<b>60 Total</b>		<b>Fairview WW</b>		<b>5,753 ft</b>	<b>\$277,941</b>
<b>Paint Elk TWP WW</b>					
38	R24-38B1		Sewer line replacement projects (including manholes and laterals)	1,074 ft	\$92,268
38	carry over		misc projects		\$3,493
<b>38 Total</b>		<b>Paint Elk TWP WW</b>		<b>1,074 ft</b>	<b>\$95,761</b>
<b>Total</b>				<b>68,360 ft</b>	<b>\$25,594,318</b>

## Detailed Project Listing of Wastewater DSIC-Eligible projects – Calendar year 2022 Projected

The project listing envisioned for the upcoming 12 months consists of a mixture of sewer line replacement, manhole and company owned lateral work. The information is preliminary and subject to change.

District	Funding Project Number		Description:	Est. Quantity	Capital Projection 2022
<b>Clarion WW</b>					
47	I24-470009		Hemlock Ridge Lift Station Improvement	1	\$475,000
47	R24-47B1		Sewer line replacement projects (including manholes and laterals)	5,200 ft	\$1,343,000
47	R24-47C1		Emergency sewer main replacement work.	3 ft	\$10,779
47	R24-47F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	15	\$51,000
47	R24-47H1		Lateral replacements at locations determined to be deficient during annual inspection program.	17	\$42,300
47	I24-470007		Mays Lift Station Replacement		
<b>47 Total</b>		<b>Clarion WW</b>		<b>5,203 ft</b>	<b>\$1,922,079</b>
<b>Pocono WW</b>					
58	R24-58B1		Sewer line replacement projects (including manholes and laterals)	1,242 ft	\$354,000
58	R24-58C1		Emergency sewer main replacement work.	7 ft	\$26,948
58	R24-58F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	4	\$14,875
58	R24-58H1		Lateral replacements at locations determined to be deficient during annual inspection program.	19	\$47,000
<b>58 Total</b>		<b>Pocono WW</b>		<b>1,249 ft</b>	<b>\$442,823</b>
<b>Claysville WW</b>					
26	R24-26C1	2426	Emergency sewer main replacement work.	0 ft	\$108
26	R24-26F1	2426	Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	2	\$8,500
26	R24-26H1	2426	Lateral replacements at locations determined to be deficient during annual inspection program.		\$0
<b>26 Total</b>		<b>Claysville WW</b>		<b>0 ft</b>	<b>\$8,608</b>
<b>Coatesville WW</b>					
67	R24-67B1		Sewer line replacement projects (including manholes and laterals)	2,282 ft	\$485,000
67	R24-67C1		Emergency sewer main replacement work.	30 ft	\$120,600
67	R24-67F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	15	\$51,000
67	R24-67H1		Lateral replacements at locations determined to be deficient during annual inspection program.	88	\$105,280
<b>67 Total</b>		<b>Coatesville WW</b>		<b>2,312 ft</b>	<b>\$761,880</b>
<b>Lehman Pike WW</b>					
69	R24-69C1		Emergency sewer main replacement work.	15 ft	\$59,286
69	R24-69F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	6	\$21,250
69	R24-69H1		Lateral replacements at locations determined to be deficient during annual inspection program.	187	\$470,000
<b>69 Total</b>		<b>Lehman Pike WW</b>		<b>15 ft</b>	<b>\$550,536</b>
<b>Scranton WW</b>					
92	R24-92B1		Sewer line replacement projects (including manholes and laterals)	23,495 ft	\$7,694,000
92	R24-92C1		Emergency sewer main replacement work.	422 ft	\$1,689,835
92	R24-92F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	124	\$433,500
92	R24-92H1		Lateral replacements at locations determined to be deficient during annual inspection program.	484	\$677,740
<b>92 Total</b>		<b>Scranton WW</b>		<b>23,917 ft</b>	<b>\$10,495,075</b>

2022 Details Continued on Next Page

<b>McKeesport WW</b>					
12	R24-12B1		Sewer line replacement projects (including manholes and laterals)	26,152 ft	\$8,528,000
12	R24-12C1		Lateral replacements at locations determined to be deficient during annual inspection program.	135 ft	\$538,963
12	R24-12F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	292	\$1,023,345
<b>12 Total</b>	<b>McKeesport WW</b>			<b>26,287 ft</b>	<b>\$10,090,308</b>
<b>FRANKLIN WW</b>					
83	R24-83B1		Sewer line replacement projects (including manholes and laterals)	0 ft	\$0
83	R24-83C1		Lateral replacements at locations determined to be deficient during annual inspection program.	4 ft	\$16,169
83	R24-83F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	5	\$17,000
83	R24-83H1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	4	\$10,340
<b>83 Total</b>	<b>FRANKLIN WW</b>			<b>4 ft</b>	<b>\$43,509</b>
<b>McEwensville WW</b>					
85	R24-85C1		Emergency sewer main replacement work.	1 ft	\$5,390
85	R24-85F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	2	\$8,500
85	R24-85H1		Lateral replacements at locations determined to be deficient during annual inspection program.	4	\$9,400
<b>85 Total</b>	<b>McEwensville WW</b>			<b>1 ft</b>	<b>\$23,290</b>
<b>New Cumberland WW</b>					
87	R24-87B1		Sewer line replacement projects (including manholes and laterals)	14,024 ft	\$1,665,000
87	R24-87C1		Emergency sewer main replacement work.	9 ft	\$37,727
87	R24-87F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program id required.	16	\$54,400
87	R24-87H1		Lateral replacements at locations determined to be deficient during annual inspection program.	43	\$51,700
<b>87 Total</b>	<b>New Cumberland WW</b>			<b>14,033 ft</b>	<b>\$1,808,827</b>
<b>Koppel WW</b>					
35	R24-35B1		Sewer line replacement projects (including manholes and laterals)	5,656 ft	\$1,571,000
35	R24-35C1		Emergency sewer main replacement work.	5 ft	\$21,559
35	R24-35F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program.	5	\$17,000
35	R24-35H1		Lateral replacements at locations determined to be deficient during annual inspection program.	6	\$14,100
<b>35 Total</b>		<b>Koppel WW</b>		<b>5,661 ft</b>	<b>\$1,623,659</b>
<b>Fairview WW</b>					
60	I24-600007		Fairview South Bienhower Lift Station	1	\$650,000
60	R24-60B1		Sewer line replacement projects (including manholes and laterals)	3,245 ft	\$568,000
60	R24-60C1		Emergency sewer main replacement work.	13 ft	\$53,896
60	R24-60F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program.	10	\$34,000
60	R24-60H1		Lateral replacements at locations determined to be deficient during annual inspection program.	10	\$25,850
<b>60 Total</b>		<b>Fairview WW</b>		<b>3,258 ft</b>	<b>\$1,331,746</b>
<b>Paint Elk TWP WW</b>					
38	I24-380003		Lift Station Upgrades - Paint Elk WW		\$2,500,000
38	R24-38B1		Sewer line replacement projects (including manholes and laterals)	1,309 ft	\$416,000
38	R24-38C1		Emergency sewer main replacement work.	1 ft	\$4,312
38	R24-38F1		Manhole replacements at locations determined to be deficient during annual manhole inspection program.	5	\$17,000
38	R24-38H1		Lateral replacements at locations determined to be deficient during annual inspection program.	6	\$14,100
<b>38 Total</b>	<b>Paint Elk TWP WW</b>			<b>1,310 ft</b>	<b>\$2,951,412</b>
<b>Total</b>				<b>83,251 ft</b>	<b>\$32,053,753</b>

**Summary:**

PAWC's AAO Plan demonstrates that PAWC has accelerated DSIC-eligible wastewater capital investment and the actual cumulative expenditures over the last four years exceed planned budgetary levels included in the LTIP, primarily due to an increased level of investment and higher material and restoration costs, along with additional system acquisitions.

The projected 2022 wastewater replacement and rehabilitation program on page 5 of this AAOP is consistent with, though slightly higher than, year 2022 of the current approved LTIP for the wastewater operations covered under this AAOP. The elevated investment is largely a result of the higher material costs, higher restoration costs and additional work due to poor infrastructure condition that has been uncovered in newer acquisitions.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**CERTIFICATE OF SERVICE**


I hereby certify that I have on this day served a true and correct copy of Pennsylvania-American Water Company's 2021 Wastewater Annual Asset Optimization Plan upon the participants listed below, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54:

**VIA ELECTRONIC DELIVERY**

Richard Kanaskie  
Director and Chief Prosecutor  
Bureau of Investigation and Enforcement  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2nd Floor, F West  
Harrisburg, PA 17120  
[rkanaskie@pa.gov](mailto:rkanaskie@pa.gov)

Teresa Reed Wagner  
Executive Director  
PA Office of Small Business Advocate  
Forum Place  
555 Walnut Street, 1st Floor  
Harrisburg, PA 17101  
[tereswagne@pa.gov](mailto:tereswagne@pa.gov)

Patrick Cicero  
Acting Consumer Advocate  
PA Office of Consumer Advocate  
555 Walnut Street  
5th Floor, Forum Place  
Harrisburg, PA 17101-1923  
[pcicero@paoca.org](mailto:pcicero@paoca.org)

  
\_\_\_\_\_  
Teresa K. Harrold  
Director, Corporate Counsel  
Pennsylvania-American Water Company  
852 Wesley Drive  
Mechanicsburg, PA 17055  
Office: (717) 550-1562  
[teresa.harrold@amwater.com](mailto:teresa.harrold@amwater.com)

Dated this 2<sup>nd</sup> day of March, 2022