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May 21, 2026

VIA ELECTRONIC FILING

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Petition of Aqua Pennsylvania Wastewater, Inc. For Approval of its Third Long-Term Infrastructure Improvement Plan
Docket No. P-2024-3052037

Dear Secretary Homsher:

Enclosed on behalf of Aqua Pennsylvania Wastewater, Inc. is the redline version of the Updated Modified Third LTIIP that was originally filed on April 17, 2026, in the above-captioned proceeding, and which is being provided at the request of the Pennsylvania Public Utility Commission's Bureau of Technical Utility Services.

Respectfully submitted,

Megan E. Rulli
Associate

MER/sll
Attachment

cc: Ken Shaffer (*via email; w/attachment)*

AQUA PENNSYLVANIA WASTEWATER, INC.

MODIFIED THIRD LONG-TERM INFRASTRUCTURE IMPROVEMENT PLAN

FOR THE PERIOD 2025 - 2029

Aqua Pennsylvania Wastewater, Inc. ("Aqua" or the "Company") is submitting this Long Term Infrastructure Improvement Plan ("LTIIP") in accordance with the requirements of Chapter 13 of the Public Utility Code, 66 Pa. C.S. §§ 1350-1360, Chapter 121 of Title 52 of the Pennsylvania Code, and the Pennsylvania Public Utility Commission's ("PUC" or the "Commission") Final Implementation Order entered on August 2, 2011, in Docket No. M-2012-2293611. The Company's Modified Third LTIIP covers infrastructure investment through its established Distribution System Improvement Charge ("DSIC"). This Modified Third LTIIP is for the period of 2025 through 2029.

INTRODUCTION[1]

Aqua Pennsylvania Wastewater, Inc. is the wastewater subsidiary of Aqua Pennsylvania, Inc. ("Aqua Pennsylvania") and was formed in 1996 with the purchase of the Little Washington Drainage Company, which owned a wastewater system in East Brandywine Township, Pennsylvania. Since 1996, Aqua has grown steadily and currently owns and operates forty-~~five (45~~four (44) wastewater collection and conveyance systems and serves ~~68,006~~63,980 customers in eighteen (18) counties within Pennsylvania.

The Company has been organized into two operating groups within Pennsylvania, Southeastern Pennsylvania ("SEPA") and Greater Pennsylvania ("GPA").

- The GPA operating division serves approximately 16,801 customers in Adams, Carbon, Clarion, Clearfield, Lackawanna, Luzerne, Monroe, Pike, Schuylkill, Venango, and Wyoming counties. The GPA operating division collection and conveyance systems include approximately 410 miles of pipe, approximately 4,694 manholes, and 82 pump stations.

- The SEPA operating division serves approximately ~~51,205~~47,179 customers in Berks, Bucks, Chester, Delaware, and Montgomery counties. The SEPA operating

[1] The information in this LTIIP presents information only on the systems that are included in the LTIIP. Systems that have not yet been included in the LTIIP are not in the following information.

division collection and conveyance systems include approximately ~~688~~615 miles of pipe, ~~15,830 manholes~~14,144manholes, and ~~106~~94 pump stations.

On May 31, 2013, Aqua, then known as the Little Washington Wastewater Company ("LWWC")[2], filed its petition for approval of a DSIC and LTIIP in accordance with Act 11 of 2012.[3] This petition was approved by the Commission on September 12, 2013. On September 1, 2017, Aqua filed its Petition for a Second LTIIP with the Commission, which was approved by Commission Order on December 21, 2017 at Docket No. P-2017-2622818. On October 31, 2019, Aqua filed its Petition for a Modified LTIIP with the Commission, which was approved by Commission Order on February 27, 2020, at Docket No. P-2019-3013941. On November 8, 2024, Aqua filed its Petition for a Third LTIIP with the Commission, was approved by Commission Order on June 5, 2025, at Docket No. P-2024-3052037. Aqua now files this Modified Third LTIIP in accordance with Aqua's Settlement approved by the Commission in its acquisition of the Beaver Falls wastewater system.[4]

Under this Modified Third LTIIP, Aqua is incorporating systems not previously included in Aqua's Third LTIIP, including the Greenville Sanitary Authority~~,~~ and the City of Beaver Falls,~~ and East Whiteland~~ wastewater systems. This Modified Third LTIIP also updates projections for the years 2026-2029 of the Third LTIIP. Aqua plans to increase its collection system infrastructure spending to about $16.~~9~~5 million per year (on average) over the course of the 5-year plan. Aqua's annual capital investment in its wastewater collection system has been documented in its Annual Asset Optimization Plans ("AAOP"), filed with the Commission annually each October beginning in 2014. In 2019, Aqua then changed to calendar year reporting with AAOPs submitted by March 1. Aqua's annual collection system investments per calendar year broken out by asset type for the last five years are provided in Table A, below.

[2] LWWC's name was changed to Aqua Pennsylvania Wastewater, Inc. effective January 1, 2014. See Supplement No. 86 to Tariff Sewer-Pa. P.U.C. No. 1, Notification of Name Change to Aqua Pennsylvania Wastewater, Inc., Docket No. R-2013-2395509 (Dec. 17, 2013) (Secretarial Letter approving tariff supplement to implement name change).
[3] The Company did not file a separate petition for approval of its first LTIIP. Rather, Aqua attached the LTIIP, as an appendix to its DSIC petition. On July 3, 2013, LWWC filed a letter requesting the Commission to consider the Company's May 31, 2013 petition as seeking approval of both the proposed DSIC and LTIIP.
[4] *Application of Aqua Pennsylvania Wastewater, Inc. pursuant to Sections 1102, 1329, and 507 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of City of Beaver Falls*, Docket No. A-2022-3033138, Opinion and Order at 101-102, Ordering Paragraph 23 (Jun. 18, 2025).

Table A – Historic Spending by Year and Asset Type

Division	Mains	Manholes	Pump Stations	Clean & Televise	Engineering Studies	Total
GPA 2020	$868,235	$1,381,234	$1,491,064	$0	$0	$3,740,532
SEPA 2020	$1,055,624	$137,191	$329,372	$58,110	$0	$1,580,297
Subtotal	**$1,923,859**	**$1,518,425**	**$1,820,436**	**$58,110**	**$0**	**$5,320,829**
GPA 2021	$1,198,189	$1,548,833	$642,781	$0	$0	$3,389,804
SEPA 2021	$1,692,615	$95,316	$286,090	$88,412	$0	$2,162,432
Subtotal	**$2,890,804**	**$1,644,149**	**$928,871**	**$88,412**	**$0**	**$5,552,236**
GPA 2022	$1,505,542	$212,168	$829,299	$0	$158,511	$2,705,520
SEPA 2022	$483,696	$73,645	$476,436	$0	$0	$1,033,777
Subtotal	**$1,989,238**	**$285,813**	**$1,305,735**	**$0**	**$158,511**	**$3,739,297**
GPA 2023	$2,611,000	$2,163,406	$1,228,496	$9,341	$65,008	$6,077,251
SEPA 2023	$965,496	$0	$622,572	$0	$0	$1,588,068
Subtotal	**$3,576,496**	**$2,163,406**	**$1,851,068**	**$9,341**	**$65,008**	**$7,665,319**
GPA 2024	$2,883,554	$3,080,826	$2,579,948	$169,491	$155,076	$8,868,895
SEPA 2024	$1,386,383	$120,000	$426,650	$0	$0	$1,933,033
Subtotal	**$4,269,937**	**$3,200,826**	**$3,006,598**	**$169,491**	**$155,076**	**$10,801,928**
Total	**$14,650,334**	**$8,812,619**	**$8,912,708**	**$325,354**	**$378,595**	**$33,079,609**

A significant portion of the capital to be spent on this LTIIP will continue to focus on systems that experience significant inflow and infiltration ("I&I") and require rehabilitation or replacement of defective mains. Aqua has significant plans and capital outlined for its SEPA systems, such as Cheltenham, East Bradford, East Norriton, ~~East Whiteland,~~ Limerick, Lower Makefield, Media, New Garden, and North Heidelberg in SEPA. Regarding GPA, Aqua has significant plans and capital outlined for Beech Mountain, Eagle Rock, Greenville, Lake Harmony, Laurel Lakes, Links at Gettysburg, Masthope, Pinecrest, Thornhurst, Treasure Lake, White Haven, and Woodloch Springs. Additionally, Aqua will continue to concentrate on replacing pumping station control panels. In many of the Company's acquisitions, the original control panels were not fabricated in compliance with current electrical standards, particularly those related to arc flash protection. Aqua is replacing these pumping station control panels with panels that meet current electrical safety standards and provide safe access to the Company's operators, eliminating the need for operators to open and access the panels to operate these facilities.

The condition of Aqua's collection systems varies depending on age, materials used, and the quality of the initial installation. Aqua strives to maintain the collection systems by performing work required to maintain their integrity and reliability; however, many of the Company's acquired systems were in various states of disrepair, exhibiting aged infrastructure and significant I&I of ground and surface waters into the wastewater collection systems.

During the period of this LTIIP, Aqua's primary focus in its accelerated collection system refurbishment program will be to continue the systematic investigation of those sewer systems with moderate to significant I&I, to schedule corrective measures to reduce or eliminate the I&I, and to refurbish and/or replace aged pumping facilities.

1 – Type and Age of Eligible Property

Aqua developed a Geographic Information System ("GIS") for all of its wastewater collection systems. The Aqua GIS system stores data on sewer mains, manholes, valves, pump stations, etc., and is updated continually as the collection system changes with the addition of new pipe and the replacement of old pipe. Aqua utilizes, among other things, the GIS to identify and rate the mains, manholes, and pump stations on a priority basis for repair and replacement.

The following tables describe Aqua's collection system inventory in terms of asset category (gravity main, force main, manhole, pump station, etc.) and includes information on material, diameter, and age. It is likely that some of data will remain "unknown", as occasionally data simply does not exist for older or acquired facilities. However, by implementing GIS and similar programs, procedures will be established to capture the required data as continuing investigatory and repair work proceeds.

Types of sewer main

Gravity: Piping that conveys wastewater by gravity with access manholes placed at set intervals along the sewer pipe, at pipe intersections, and changes in pipeline direction.

Force Main: The discharge pipeline from a pumping station integral to the collection system.

Low Pressure: A sewer system designed to transport sewage by means of pressure derived from individual pumping units located on each parcel of land being served by the sewer.

Interceptor: Larger piping that conveys wastewater from collector and trunk sewer mains to wastewater treatment plants.

Table 1.1 depicts the breakdown of mains, including gravity, force main, and low pressure for all of the wastewater collection systems within the operating divisions.

Table 1.1 – Pipe Type and Quantity by Region

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Type	Length (feet)	Percent of Total
SEPA Operating Division		
Gravity	~~3,146,359~~2,801,012	86.~~59~~17%
Force Main	~~325,928~~292,669	~~8.97~~9.00%
Low Pressure	~~59,239~~54,999	1.~~63~~69%
Interceptor	102,041	~~2.81~~3.14%
Total	**3,~~633,567~~250,721**	**100%**
GPA Operating Division		
Gravity	1,085,813	50.16%
Force Main	114,894	5.31%
Low Pressure	964,139	44.54%
Interceptor	0	0%
Total	**2,164,846**	**100%**
Total All Operating Divisions		
Gravity	~~4,232,172~~3,886,825	~~72.99~~71.77%
Force Main	~~440,822~~407,563	7.~~60~~53%
Low Pressure	1,~~023,378~~019,138	~~17.65~~18.82%
Interceptor	102,041	1.~~76~~88%
Total	**5,~~798,413~~415,567**	**100%**

Table 1.2 breaks down the collection system by material for all of the wastewater collection systems within the operating divisions.

Table 1.2 – Pipe Material by Region

Type	Length (feet)	Percent of Total
SEPA Operating Division		
Asbestos Cement (“AC”)	9,869	0.~~27~~30%
Cast Iron (“CI”)	28,090	0.~~77~~86%
Ductile Iron (“DI”)	~~43,920~~37,689	1.~~21~~16%
Galvanized (“G”)	203	0.01%
HD Polyethylene (“HDPE”)	~~22,868~~18,628	0.~~63~~57%
Permastrand (“P-S”)	1,100	0.03%
Polyvinyl Chloride (“PVC”)	~~658,537~~629,542	~~18.12~~19.37%
Reinforced Concrete (“RCP”)	6,088	0.~~17~~19%
Steel (“S”)	50	0.0%
Terra Cotta (“TC”)	95,999	2.~~64~~95%
Vitrified Clay (“VCP”)	294,649	~~8.11~~9.06%
Unknown	2,~~472,194~~128,814	~~68.04~~65.49%
Total	**3,~~633,567~~250,721**	**100%**
GPA Operating Division		
Acrylonitrile Butadiene Styrene (“ABS”)	137	0.01%
Asbestos Cement (“AC”)	22,832	1.05%
Cast Iron (“CI”)	12,512	0.58%
Cement (“CEM”)	29,986	1.39%
Ductile Iron (“DI”)	1,434	0.07%
HD Polyethylene (“HDPE”)	8,299	0.38%
Polyvinyl Chloride (“PVC”)	1,347,504	62.24%
Reinforced Concrete (“RCP”)	7,617	0.35%
Truss (“TRS”)	82,894	3.83%
Vitrified Clay (“VCP”)	196,138	9.06%
Unknown	455,~~492~~493	21.04%
Total	**2,164,846**	**100%**

Type	Length (feet)	Percent of Total
Total All Operating Divisions		
Acrylonitrile Butadiene Styrene (“ABS”)	137	0~~.01~~%
Asbestos Cement (“AC”)	32,701	0.~~56~~60%
Cast Iron (“CI”)	40,602	0.~~70~~75%
Cement (“CEM”)	29,986	0.~~52~~55%
Ductile Iron (“DI”)	~~45,354~~39,123	0.~~78~~72%
Galvanized (“G”)	203	0%
HD Polyethylene (“HDPE”)	~~31,167~~26,927	0.~~54~~50%
Permastrand (“P-S”)	1,100	0.02%
Polyvinyl Chloride (“PVC”)	~~2,006,041~~1,977,046	~~34.60~~30.51%
Reinforced Concrete (“RCP”)	13,705	0.~~24~~25%
Steel (“S”)	50	0%
Terra Cotta (“TC”)	95,999	1.~~66~~77%
Truss (“TRS”)	82,894	1.~~43~~53%
Vitrified Clay (“VCP”)	490,~~788~~787	~~8.46~~9.06%
Unknown	2,~~927,685~~584,307	~~50.49~~47.72%
Total	**5,~~798,413~~415,567**	**100%**

Tables 1.3A-C provide a breakdown of the pipe inventory by size for all of the wastewater collection systems within the operating divisions.

Table 1.3A – Pipe Diameter for SEPA Operating Division

Type	Diameter	Length (Feet)	Percent of Total
Gravity	1.5”	27	0.00%
	2”	622	0.02%
	3”	333	0.01%
	4”	~~525~~392	0.~~02~~01%
	6"	21,055	0.~~67~~75%
	8"	1,~~393,024~~098,007	~~44.27%~~39.%
	10"	~~75,825~~54,272	~~2.41~~1.94%
	11”	195	0.01%
	12"	~~61,196~~53,388	1.~~94~~91%
	14”	68	0.00%
	15"	~~23,205~~20,030	0.~~74~~72%
	~~16”~~	~~351~~	~~0.01%~~
	18”	~~17,334~~10,400	0.~~55~~37%
	20”	~~4,642~~0	0.~~15~~00%
	21”	3,~~708~~634	0.~~12~~13%
	~~24”~~	~~874~~	~~0.03%~~
	~~27”~~	~~3,836~~	~~0.12%~~
	30”	7,384	0.~~23~~26%
	36"	~~512~~355	0.~~02~~01%
	Unknown	1,~~531,644~~530,850	~~48.68~~54.65%
	Total	**~~3,146,360~~2,801,012**	**100%**
Low Pressure	1.25”	583	~~0.98~~1.06%
	1.5"	3,248	5.~~48~~91%
	2"	~~30,792~~26,552	~~51.98~~49.28%
	2.5”	1,075	1.~~81~~95%
	3"	10,719	~~18.09~~19.49%
	4”	1,963	3.~~31~~57%
	Unknown	10,859	~~18.33~~19.74%
	Total	**~~59,239~~54,999**	**100%**
Force Main	1.25”	31	0.01%
	1.5”	~~1,229~~435	0.~~38~~15%
	2"	28,~~776~~125	~~8.83~~9.61%
	2.5"	2,974	~~0.91~~1.02%
	3”	14,536	4.~~46~~97%
	4”	~~51,759~~48,579	~~15.88~~16.60%

	6”	~~43,448~~36,480	~~13.33~~12.46%
	8”	~~41,520~~32,310	~~12.74~~11.04%
	10"	5,458	1.~~67~~86%
	12"	22,040	~~6.76~~7.53%
	16”	3,817	1.~~17~~30%
	Unknown	~~110,341~~97,884	33.~~85~~45%
	Total	**~~325,929~~292,669**	**100%**
Interceptor	8”	2,671	2.62%
	10”	14,025	13.74%
	12”	15,627	15.31%
	15”	5,328	5.22%
	16”	1,600	1.57%
	18”	4,874	4.78%
	21”	3,806	3.73%
	22”	142	0.14%
	24”	1,028	1.01%
	27”	26	0.03%
	30”	539	0.53%
	33”	6,994	6.85%
	Unknown	45,~~379~~381	44.47%
	Total	**102,~~039~~041**	**100%**
Unknown	**Total**	**1,~~698,223~~684,947**	
All	**Total**	**3,~~633,567~~250,721**	

Table 1.3B – Pipe Diameter for GPA Operating Division

Type	Diameter	Length (Feet)	Percent of Total
Gravity	2”	503	0.05%
	3”	54	0.00%
	4”	6,057	0.56%
	6"	27,057	2.49%
	8"	816,743	75.22%
	10"	73,279	6.75%
	12"	50,508	4.65%
	15"	41,050	3.78%
	18"	30,077	2.77%
	19”	148	0.01%
	20”	2,902	0.27%
	21”	496	0.05%
	24"	20,596	1.90%
	30”	8,479	0.78%
	Unknown	7,863	0.72%
	Total	**1,085,~~814~~813**	**100%**
Low Pressure	0.5”	366	0.04%
	1”	276	0.03%
	1.25”	7,569	0.79%
	1.5"	25,830	2.68%
	2"	131,446	13.63%
	2.5"	67,207	6.97%
	3"	170,113	17.64%
	4"	388,368	40.28%
	6"	36,828	3.82%
	8”	859	0.09%
	Unknown	135,~~275~~277	14.03%
	Total	**964,~~137~~139**	**100%**
Force Main	1.25”	46	0.04%
	1.5”	498	0.43%
	2"	3,849	3.35%
	3”	1,470	1.28%
	4"	42,378	36.88%
	6"	32,451	28.24%
	8"	7,783	6.77%
	10”	2,642	2.30%
	Unknown	23,~~778~~777	20.70%
	Total	**114,~~895~~894**	**100%**

Table 1.3C – Total Pipe Diameter for All Operating Divisions

Type	Diameter	Length (Feet)	Percent of Total
Gravity	1.5”	27	0.00%
	2”	1,125	0.03%
	3”	387	0.01%
	4”	6,582449	0.1617%
	6"	48,112	1.1424%
	8"	2,209,7671,914,750	52.2149.26%
	10"	149,104127,551	3.5228%
	11”	195	0.0001%
	12"	111,704103,896	2.6467%
	14”	68	0.00%
	15"	64,25561,080	1.5257%
	16”	351	0.01%
	18"	47,41140,477	1.1204%
	19”	148	0.00%
	20”	7,5442,902	0.1807%
	21"	4,204130	0.1011%
	24"	21,47220,597	0.5153%
	27”	3,836	0.09%
	30”	15,863	0.3741%
	36"	512355	0.01%
	Unknown	1,539,507538,713	36.3839.59%
	Total	**4,232,1743,886,825**	**100%**
Low Pressure	0.5”	366	0.04%
	1”	276	0.03%
	1.25”	8,152	0.80%
	1.5"	29,078	2.8485%
	2"	162,238157,998	15.8550%
	2.5"	68,282	6.6770%
	3"	180,832	17.6774%
	4"	390,331	38.4130%
	6"	36,828	3.6061%
	8"	859	0.08%
	Unknown	146,134136	14.28%
	Total	**1,023,3766019,138**	**100%**
Force Main	1.25”	77	0.02%
	1.5”	1,727933	0.3923%
	2"	32,62531,974	7.4085%
	2.5"	2,974	0.6773%

	3"	16,006	3.6393%
	4"	94,13790,957	21.3522.32%
	6"	75,89968,931	17.2216.91%
	8"	49,30340,093	11.189.84%
	10"	8,100	1.8499%
	12"	22,040	5.0041%
	16"	3,817	0.8794%
	Unknown	134,119121,661	30.4229.85%
	Total	**440,824407,563**	**100%**
Interceptor	8"	2,671	2.62%
	10"	14,025	13.74%
	12"	15,627	15.31%
	15"	5,328	5.22%
	16"	1,600	1.57%
	18"	4,874	4.78%
	21"	3,806	3.73%
	22"	142	0.14%
	24"	1,028	1.01%
	27"	26	0.03%
	30"	539	0.53%
	33"	6,994	6.85%
	Unknown	45,379381	44.47%
	Total	**102,039041**	**100%**
Unknown	**Total**	**1,865,139851,891**	
All	**Total**	**5,798,413415,567**	

Table 1.4 provides a breakdown of pipe age for all of the wastewater collection systems within the operating divisions.

Table 1.4 – Pipe Vintage by Region

Installation Year	Length (feet)	Percent of Total
GPA Operating Division		
1935-1949	3,315	0.15%
1950-1975	68,500	3.16%
1976-2000	46,508	2.15%
2001-2025	294,703	13.61%
Unknown	1,751,820	80.92%
Total	**2,164,846**	**100%**
SEPA Operating Division		
1950-1975	~~102,107~~0	~~2.81~~0%
1976-2000	~~325,497~~182,525	~~8.96~~5.61%
2001-2025	~~260,374~~167,014	~~7.17~~5.14%
Unknown	2,~~945,589~~901,182	~~95.93~~89.25%
Total	**3,~~633,567~~250,721**	**100%**
All Operating Divisions		
1935-1949	3,315	0.06%
1950-1975	~~170,607~~68,500	~~2.94~~1.26%
1976-2000	~~372,005~~229,033	~~6.42~~4.23%
2001-2025	~~555,077~~461,717	~~9.57~~8.53%
Unknown	4,~~697,409~~653,002	~~81.01~~85.92%
Total	**5,~~798,413~~415,567**	**100%**

Table 1.5 provides a breakdown of manholes for all of the wastewater collection systems within the operating divisions.

Table 1.5 – Manholes for All Operating Divisions

Division	Total Manholes	Percent of Total
GPA	4,694	~~23~~25%
SEPA	~~15,830~~14,144	~~77~~75%
Total	**~~20,524~~18,838**	**100%**

Tables 1.6A-B provide a breakdown of intermediate pump stations for all of the wastewater collection systems within the two operating divisions.

Table 1.6A – Pump Stations for GPA Operating Division

System	# of Pump Stations	Percent of Total	Material	Installation Year
Beaver Falls	1	1%	Precast	2006
Beech Mountain	0	0%	N/A	N/A
Blakeslee (Tobyhanna)	4	5%	Precast	2000-2010
Bunker Hill	0	0%	N/A	N/A
Cove Village	5	6%	Precast	1976-2000
Eagle Rock	31	38%	Steel/Precast/Fiberglass	1976-2014
Emlenton	0	0%	N/A	N/A
Greenville	3	4%	Fiberglass	1997
Lake Harmony	0	0%	N/A	N/A
Laurel Lakes	0	0%	N/A	N/A
Links at Gettysburg	2	2%	Precast	2000-2010
Masthope	9	11%	Precast	1976-2000
Pinecrest	6	8%	Precast	1976-2000
Rivercrest	0	0%	N/A	N/A
Thornhurst	0	0%	N/A	N/A
Treasure Lake	8	10%	Steel	1976-2019
Washington Park	0	0%	N/A	N/A
White Haven	5	5%	Precast	1951-2010
Woodloch Springs	8	9%	Precast	1976-2000
Total	**82**	**100%**		

Table 1.6B – Pump Stations for SEPA Operating Division

System	# of Pump Stations	Percent of Total	Material	Installation Year
Brandywine River	3	3%	Precast	1997
Bridlewood	1	1%	Precast	1996
Cheltenham	0	0%	N/A	N/A
Deerfield Knoll	1	1%	Precast	1980-1982
East Bradford	5	5%	Precast	1984-2006
East Brandywine (Little Washington)	1	1%	Precast	1973-1997
East Norriton	9	~~8~~10%	Precast	1960-2012
~~East Whiteland~~	~~12~~	~~11%~~	~~Precast~~	~~1976-2018~~
Honeycroft	1	1%	Precast	2013
Limerick	18	~~17~~19%	Cast-in-Place, Precast	1990-2015
Lower Makefield	15	~~14~~16%	Precast	1964-2021
Media	2	2%	Cast-in-Place, Precast	1925-1973
New Daleville	0	0%	N/A	2005-2008
New Garden	13	~~12~~14%	Precast	1968-2016
Newlin Green	0	0%	N/A	N/A
North Heidelberg	4	4%	Precast	1971-1978
Peddler's View	0	0%	N/A	N/A
Penn London	0	0%	N/A	N/A
Penn Township	8	~~8~~9%	Precast	1990-2000
Penn Oaks	1	1%	Precast	1998
Plumsock	1	1%	Precast	1991
Sage Hill	1	1%	Precast	2008
Stony Creek	3	3%	Precast	2007-2013
Twin Hills	2	2%	Precast	1992-2003
Villages Valley Forge	1	1%	Precast	2010-2012
Willistown Woods	4	4%	Precast	1982-2003
Total	**~~106~~94**	**100%**		

2 – Schedule for Planned Repair and Replacement of Eligible Property

Recognizing the need for continual renewal of the Company's collection and conveyance systems to maintain quality and reliable service to its customers, Aqua has been rehabilitating and replacing system components since acquiring each of its sewer systems. Looking forward, Aqua has prioritized pumping stations and sewer main renewal/rehabilitation candidates at both a macro and micro level.

Macro Planning

At the macro level, general categories of sewer components (for example, old and broken terracotta mains, deteriorating manholes, and aging pump stations) and geographic areas within a system have been identified as areas of concern. Any sewer features fitting these criteria are considered potential candidates for near-term replacement. The macro examination also eliminates certain pipe from consideration for replacement. For example, PVC less than 20 years old and systems known to have only minor I&I issues are unlikely to need current repair and replacement.

At this level, it is useful to define the pool of "potential" candidate sewer collection system components for replacement. There are several sewer collection and conveyance categories that will be used to determine the major areas of concern. Past sewer investigations have identified pipes and manholes that require repair/replacement and systems with significant I&I issues will also be targeted for inspection and assessment. Additionally, older pump stations will be identified for evaluation and refurbishment. Systems with PVC pipe less than 20 years old that have only minor I&I issues will not be targeted for rehabilitation.

I&I analyses are performed to demonstrate the degree of excessive I&I in each sewer system tributary to the treatment works. Systematic investigations of the sewer systems will identify the presence, flow rate, and type of I&I conditions that exist in each sewer system. The systematic investigation will include the following: video inspections of pipes, estimates of average residential, industrial, commercial, and institutional wastewater flows, continuous flow monitoring, in some cases flow isolation monitoring and determination of I&I flow rates, and rainfall monitoring.

Micro Planning

At the micro level, main replacement planning addresses the priority in which specific pipes and manholes within the broader categories are replaced or rehabilitated. This requires taking into account the results of I&I elimination investigations and existing performance characteristics of the main such as cracks, sags, and other performance criteria that are to be incorporated into the GIS data.

The results of I&I investigations and main inspections will be utilized to target specific pipe segments and structures requiring rehabilitation. The schedule of repair and replacement projects are prioritized based upon environmental impact, public health, severity, and capacity needs of the area. Digging up and replacing defective sewer pipes is no longer the only solution available for eliminating I&I. Today, this method is reserved for cases in which the structural integrity of the pipe is severely degraded beyond repair, the pipe is seriously misaligned, or when other rehabilitation methods are not deemed practical or cost effective. The cost effectiveness of new trenchless or in-place rehabilitation technologies has eliminated much of the need to excavate and replace sewer piping. Sewer mains determined to require repair would be evaluated to determine the most cost-effective approach. Repair methods to be utilized for gravity sewers include slip lining with HDPE pipe and cured-in-place lining (inversion lining). If it is determined that an existing line cannot be repaired, complete replacement with PVC pipe for gravity mains is the likely approach. Bypass pumping measures are required when necessary to maintain the serviceability of the collection system.

Aqua's preferred methods of sewer rehabilitation are slip lining and cured-in-place pipe liners ("CIPP"). When slip lining, a slightly smaller diameter HDPE pipe is installed inside the existing pipe. CIPP is formed by inserting a flexible polyester or epoxy resin-filled felt tube into a pipe, which is inverted against the inner wall of the existing pipe and then allowed to cure.

3 – Location of Eligible Property and Regional Characteristics

The GPA operating division consists of nineteen (19) wastewater systems containing twenty (20) wastewater treatment plants ("WWTPs"). In general, these systems are in "fair" to "poor" condition, with moderate to severe I&I issues and structural defects. Corrective measures are needed, including, but not limited to, I&I and structural investigation/rehabilitation and replacement of aged pump station components. Table 3.1 shows each GPA system, its location, current customer count, and acquisition date.

Table 3.1 – GPA Operating Division Systems

Name	County	Sewer Customers	Acquisition Date
Beaver Falls	Beaver	3,193	July 21, 2025
Beech Mountain	Luzerne	981	May 4, 2012
Blakeslee (Tobyhanna)	Monroe	775	June 30, 2017
Bunker Hill	Wyoming	72	August 11, 2015
Cove Village	Schuylkill	167	August 5, 2009
Eagle Rock	Luzerne and Schuylkill	1,203	June 24, 2004
Emlenton	Venango & Clarion	407	December 30, 2016
Greenville	Mercer	2,289	February 1, 2025
Lake Harmony	Carbon	1,015	September 28, 2012
Laurel Lakes	Luzerne	204	July 1, 2005
Links at Gettysburg	Adams	290	September 1, 2004
Masthope	Pike	1,453	January 26, 2006
Pinecrest	Monroe	371	December 18, 2003
Rivercrest	Wyoming	226	June 28, 2002
Thornhurst	Lackawanna	317	August 6, 2004
Treasure Lake	Clearfield	2,282	March 1, 2013
Washington Park	Wyoming	135	March 31, 2009
White Haven	Luzerne	759	March 12, 2002

Woodloch Springs	Pike	662	December 1, 2003
TOTAL		**16,801**	

The SEPA operating division serves twenty-~~six (26~~five (25) collection and conveyance systems and contains twenty-~~two (22~~one (21) WWTPs. In general, these systems are in "fair" to "good" condition and have minor I&I issues and structural defects, with the exception of the Media system. Corrective measures are needed within the Media system, including, but not limited to, I&I, structural investigation/rehabilitation, and system component replacement. Table 3.2 shows each SEPA system, its location, current customer count, and acquisition date.

Table 3.2 – SEPA Operating Division Systems

Name	County	Sewer Customers	Acquisition Date
Brandywine River Estates	Chester	81	March 11, 1999
Bridlewood	Chester	510	December 16, 2002
Cheltenham	Montgomery	10,057	December 19, 2019
Deerfield Knoll	Chester	119	July 18, 1995
East Bradford	Chester	1,286	December 12, 2018
East Brandywine (Little Washington)	Chester	350	November 22, 1996
East Norriton	Montgomery	5,039	June 19, 2020
~~East Whiteland~~	~~Chester~~	~~4,026~~	~~August 12, 2022~~
Honeycroft	Chester	235	October 31, 2016
Limerick	Montgomery	6,000	July 25, 2018
Lower Makefield	Bucks	11,484	March 4, 2022
Media Borough	Delaware	6,770	April 5, 2001
New Daleville	Chester	108	October 30, 2008
New Garden	Chester	1,947	December 21, 2020
Newlin Green	Chester	50	August 9, 2007
North Heidelberg	Berks	273	March 30, 2023
Peddler's View	Bucks	214	September 24, 1997
Penn London	Chester	1	September 8, 2017

Name	County	Sewer Customers	Acquisition Date
Penn Township	Chester	1,092	March 28, 2014
The Greens at Penn Oaks	Chester	71	June 29, 2007
Plumsock	Chester	38	October 13, 2000
Sage Hill	Chester	21	December 21, 2012
Stony Creek	Montgomery	246	April 30, 2010
Twin Hills	Chester	329	April 13, 2000
Village at Valley Forge	Chester & Montgomery	34	March 30, 2012
Willistown Woods	Chester	824	November 17, 1999
TOTAL		~~51,205~~47,179	

4 – Reasonable Estimate of the Quantity of Property to be Improved

The quantities set forth in Table 4.1, below, are approximations based upon a general assessment of overall needs and historical costs. Actual quantities of pipe replacement and manhole repairs will be determined based upon the results of I&I investigations and sewer main inspections.

Table 4.1 – 2025 to 2029 Planned Capital Projects

Year	Mains (LF)	Manholes (EA)	Pump Stations (EA)
2025	~~77,124~~76,894	175	~~50~~49
2026	59,762	119	40
2027	35,083	452	37
2028	~~76,294~~72,210	~~612~~599	40
2029	~~70,488~~69,688	~~1,501~~11,497	37
TOTAL	**~~318,751~~313,637**	**2,~~859~~842**	**~~204~~203**

5 – Projected Annual Expenditures and Measures to Ensure Cost-Effectiveness

As previously stated, Aqua will perform I&I elimination projects including pipe replacement and manhole repair to only those portions of the collection system identified through I&I investigations and inspections. Pipe replacement will be performed utilizing trenchless sewer rehabilitation methods where possible. Trenchless techniques are capable of performing spot repairs as well as manhole-to-manhole lining. For most applications, trenchless sewer rehabilitation techniques require less installation time and therefore less bypass pumping. In addition, trenchless sewer rehabilitation techniques minimize utility conflicts, minimize restoration costs, and are less disruptive to business, homeowners, and traffic. Aqua is able through competitive bidding to secure lower unit costs contracts with various utility contractors. Aqua assigns supervisors and inspectors to each project to ensure the quality and effectiveness of work performed. Additionally, where practical Aqua coordinates projects with local municipalities to coincide with other utility and paving projects to reduce restoration costs and minimize customer impacts.

Tables 5.1 to 5.3 identify, by project type, the collection system capital projects planned to be performed in the upcoming five years, as well as the anticipated expenditure by project type for each year of the five-year term of this LTIIP. The specified projects are subject to change based upon updated information and changes in priority that may occur during the five-year period. Cost estimates are subject to change as specific projects are designed and built.

Table 5.1 – GPA Collection System Capital Improvement Schedule

Description	2025	2026	2027	2028	2029	Total
Sewer Mains	$3,395,469	$953,938	$1,511,522	$3,144,372	$4,400,582	$13,405,883
Manholes	$1,058,425	$171,000	$1,776,000	$1,198,700	$2,318,400	$6,522,525
Pump Stations	$4,606,955	$1,177,450	$5,501,800	$5,853,550	$4,787,420	$21,927,175
Total	**$9,060,849**	**$2,302,388**	**$8,789,322**	**$10,196,622**	**$11,506,402**	**$41,855,583**

Table 5.2 – SEPA Collection System Capital Improvement Schedule

Description	2025	2026	2027	2028	2029	Total
Sewer Mains	$6,~~902,886~~879,877	$9,~~951,476~~863,726	$4,~~156,168~~024,543	$~~3,840,650~~2,615,400	$3,~~900,450~~660,280	$~~28,751,630~~27,043,826
Manholes	$84,000	$849,226	$119,000	$~~91,000~~0	$~~28,000~~0	$1,~~171~~052,226
Pump Stations	$1,~~660,052~~504,205	$1,885,738	$1,407,902	$2,367,238	$5,506,213	$12,~~827,143~~671,296
Total	**$8,~~646,938~~468,082**	**$12,~~686,441~~598,691**	**$5,~~683,070~~551,445**	**$~~6,298,888~~4,982,638**	**$9,~~434,663~~166,493**	**$~~42,749,999~~40,767,348**

Table 5.3 – TOTAL Collection System Capital Improvement Schedule

Description	2025	2026	2027	2028	2029	Total
Sewer Mains	$10,~~298,355~~275,346	$10,~~905,414~~817,664	$5,~~667,690~~536,065	$~~6,985,022~~5,759,772	$8,~~301,032~~060,862	$~~42,157,513~~40,449,709
Manholes	$1,142,425	$1,020,226	$1,895,000	$1,~~289~~198,700	$2,~~346~~318,400	$7,~~693~~574,751
Pump Stations	$6,~~267,007~~111,160	$3,063,188	$6,909,702	$8,220,788	$10,293,633	$34,~~754,318~~598,471
Total	**$17,~~707,787~~528,931**	**$14,~~988,829~~901,079**	**$14,~~472,392~~340,767**	**$~~16,495,510~~15,179,260**	**$20,~~941,065~~672,895**	**$~~84,605,582~~82,622,931**

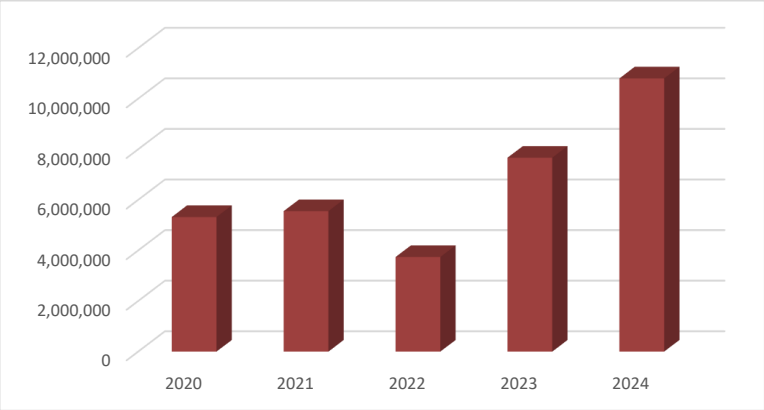
Aqua strives to meet its LTIIP goals and will continue to work diligently to ensure that its targets are met. As would occur in any capital program, the Company has experienced instances where capital and projects have been required to shift from different quarters or different years based on the re-prioritization of projects or the needs of particular systems. Since Aqua's wastewater business is much smaller in scale compared to its

water business, any shifts that occur can have an impact on the dollars and quantities spent in any particular year, thus requiring more flexibility in any one given year.

6 – Acceleration Plan and Maintenance of Safe and Reliable Service

Aqua has continuously invested in its wastewater facilities and collection systems to ensure safe and reliable service, public health and environmental protection, and intends to continue to maintain the accelerated refurbishment of its collection system. For the calendar years of 2025 through 2029, Aqua plans to accelerate collection system capital spending to approximately $16.9 million annually (on average) for pipe repair, pump station refurbishment, and I&I reduction programs. This represents an increase over the 5-year average of $6.6 million per year during the period of 2020 – 2024.

Figure 6.1 – Aqua Collection System Capital Expenditure Chart



Refurbishment of dated and/or deteriorating assets improves the safety and reliability of the entire system while improving service to Aqua's customers and protecting the environment. Construction methods that minimize service interruptions will be utilized to minimize impacts to customers while ensuring cost effectiveness. Serviceability of mains and pumping facilities during construction projects must be maintained at all times. This

is accomplished by the project specifications, work plans, and oversight of work being performed. These standards are enforced and monitored by inspectors, operations management, and the licensed operators with additional inspection and oversight by in-house safety administration personnel. Prior to starting work within a community, information letters and door-to-door notifications will be provided to affected customers and property owner associations by Aqua employees.

7 – Workforce Management

The Commission requires a utility that utilizes a DSIC to have a workforce management and training program designed to ensure that the utility has access to a qualified workforce to perform work in a cost-effective, safe and reliable manner.

Inspectors

Aqua utilizes construction inspectors to provide numerous services during the installation of gravity and low pressure mains, service laterals, pump stations, and manholes in the collection system. The inspectors are there to perform the following tasks, as well as any other work that may be necessary:

- Monitor the installation of the lines to confirm that they are properly bedded and installed to Aqua specifications.
- Monitor the backfill of the project for proper compaction as per Aqua specifications.
- Confirm that all materials such as pipe, fittings, backfill, concrete, etc. in the project meet the Aqua specifications.
- Capture the quantities of pipe and other materials for proper record keeping, plans, etc.
- Capture the quantities of pipe and other materials, labor, etc. for accurate billing and payments.
- Document all locations of pipe, laterals, etc. for accurate mapping and recordkeeping.

- Work with residential customers to lessen the impact of the project and answer or address any issues that occur within the project.
- Work with businesses that are impacted by the project to ensure deliveries, access, and service outages do not disrupt business.
- Coordinate contractors with school districts, municipalities, and emergency services so that bus routes, trash pick-up, mail delivery, and emergency response are not impacted.
- Monitor the temporary restoration during the project to confirm that it is completed to Aqua specifications.
- Monitor the restoration required in projects to make certain they are done to state or municipal specifications and ensure that proper installation is achieved.
- Observe contractor's implementation of contractor safety plans and advise contractors of any observed conditions of imminent danger. Inspectors can shut down a project until an imminent danger situation is addressed. Reports are submitted to review findings and ensure corrective actions are complete.

Safety and Training

Aqua requires its employees in the wastewater company to have mandatory safety training throughout the year. Aside from the required annual training, there is additional training that also takes place. Examples of the required annual training are confined space, traffic safety, excavation/trenching, general safety hazards, and hazard communications. In addition, there are other programs that are required but not on an annual basis, including Personal Protection Equipment ("PPE"), electrical hazard, competent person, arc flash training, and others. In 2019, Aqua developed a training program to educate drivers and reduce the frequency of backing accidents. Driving continues to be an integral part of training. In addition to video segments, Safety Days include keynote speakers discussing driving skills and techniques. In 2022, monthly video segments were implemented along with instructor led classes on reverse driving and backing, and in 2023 the Company included spotter training. In 2023, Aqua implemented regular calls for all supervisors to review any recordable injuries and share the causes and corrective actions across the organization. In 2025, a program was implemented to place a cone on the vehicle hood

to focus on walking around the vehicle looking for fixed objects before driving, use of a spotter when available, and ensuring that the first move forward from a parking spot was not backing. Aqua routinely sends out "Tool Box" Talks on safety topics; tripping hazards, electrical, tools, and seasonal topics such as weather, holidays, and Back to School. The Safety department also issues "Safety Alerts" previewing incidents and near misses. In addition, Aqua has instituted a "Near Miss" (Safety Learning Opportunities) initiative where hazards are identified and resolved within 30 days and this includes Near Misses of contractor employees observed by Aqua employees.

All wastewater Distribution/Construction employees are required to wear their PPE whenever they exit their vehicles on a jobsite. The PPE includes hardhat, safety vest, safety glasses, and steel toe shoes. The Company supplies all of this PPE.

Aqua requires all employees, and contractors, to report immediately any injury that takes place to an employee of either party. Aqua also requires employees and contractors to report any damage to utilities during the excavation process. As part of the Pennsylvania Underground Utility Line Protection Law ("PA One Call Law"), Aqua and its contractors are required to submit an Alleged Violation Report for all utility damage occurrences to the Commission.

Contractors

To supplement Aqua's employee workforce, Aqua utilizes outside contractors for all collection system projects. Contractors are required at the Company's request to provide Aqua with their safety policy and documentation of training to their employees, including but not limited to competent person, utility damage prevention, and traffic safety. Starting in 2026, all contractors working in high risk projects (construction, electrical, etc.) and performing greater than $250,000 of work per year will provide their Experience Modification Rate ("EMR") and Occupational Safety and Health Administration ("OSHA") 300 logs to Aqua's outside vendor. Any contractor scoring in the bottom 50 percentile of their Bureau of Labor Statistics ("BLS") industry or having an EMR higher than 1.00 will need to submit a waiver to continue working for the Company. This waiver will be reviewed by a subcommittee of safety, supply chain and engineering to ensure that the contractor is working toward the goal of being in the top 50% of their industry.

Aqua requires contractors to follow all state, federal, and OSHA rules and regulations in the implementation of a project. This is required in all contract documents for construction. Aqua engages a third-party safety consultant to perform safety observations on all construction projects. Contractors are also required to fill out a Job Hazard Awareness form daily designated by the contractor.

Contractors are also required to provide the PPE for their employees, including hardhat, work gloves, reflective vest or shirt, safety shoes, and safety eyewear.

Contractors are also responsible for reporting to Aqua any injuries sustained on an Aqua project. They are also required to report any utility damage that occurs on the jobsite. As part of the PA One Call Law, the contractor is required to submit an Alleged Violation Report for all utility damage occurrences to the Commission. Contractors are responsible for following the requirements of the PA One Call Law, including being responsible for all PA One Call requests for their project.

8 – Outreach and Coordination Activities with Other Utilities, PennDOT, Homeowners Associations, and Local Governments

Aqua has been updating its GIS to incorporate its wastewater assets. Between the months of May and October, replacement candidates are typically chosen and prioritized for refurbishment in the subsequent budget year. Each potential refurbishment project is vetted by the Engineering Department (i.e., analyzed for feasibility of construction in the coming budget year). As part of the analysis process, Aqua collects information from PennDOT, counties, homeowner's associations, and municipalities as to their intentions to undertake paving and other public works projects during the budget year. Where Aqua chooses to undertake a pipe or manhole refurbishment project on a road pre-scheduled for paving, the project will be coordinated with the state, county, or municipality. Aqua and the government agency will work together to ensure that the design, permitting, and construction of the pipe project will be completed in time to allow the road to be paved. In some cases, where sewer main projects are large, the government agency will agree to postpone paving of its roads to the following year. Typically, when Aqua undertakes a project where paving has been pre-planned by the government agency, Aqua and its rate payers will benefit financially through the avoidance of some level of road surface restoration, usually a full-lane or half-road milling

and macadam overlay. Aqua also communicates with customers through social media regarding fats, oils and grease, and other items that should not be flushed into the sewer system that can harm the collection systems or treatment plants.

Unfortunately, most municipalities do not identify their paving plans in advance of Aqua's project selection. Annual municipal budgets may not be approved until early in the budget year, resulting in paving projects not being formalized until well into that year. In these instances, Aqua must be proactive in identifying opportunities to coordinate pipe replacement and road paving.