Allegheny County
Sanitary Authority

Financial Statements and
Required Supplementary and
Supplementary Information

Years Ended December 31, 2024 and 2023
with Independent Auditor's Report

MaherDuessel

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ALLEGHENY COUNTY SANITARY AUTHORITY

YEARS ENDED DECEMBER 31, 2024 AND 2023

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Board of Directors
Allegheny County Sanitary Authority

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the business-type activities and the aggregate remaining fund information of Allegheny County Sanitary Authority (Authority), as of and for the years ended December 31, 2024 and 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate remaining fund information of the Authority, as of December 31, 2024 and 2023, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Authority and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's basic financial statements. The supplementary information listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Maher Duessel

Pittsburgh, Pennsylvania
March 24, 2025

MANAGEMENT'S DISCUSSION AND ANALYSIS

AUDIT ASSURANCE

The unmodified (i.e., clean) opinion of our independent auditors, Maher Duessel, Certified Public Accountants, is included in this report. You will note that the Allegheny County Sanitary Authority (Authority) has included for 2024 this Management's Discussion and Analysis section, which is in compliance with Statement No. 34 of the Governmental Accounting Standards Board.

FINANCIAL HIGHLIGHTS

Allegheny County (County) is located in Southwestern Pennsylvania and encompasses approximately 730 square miles of land. Founded in 1788, the County is the second most populated county in Pennsylvania with over 1.2 million residents. Roughly 25% of the County's residents live within the City of Pittsburgh. The Allegheny and Monongahela Rivers flow through the County to form the Ohio River in downtown Pittsburgh.

Economy

The County is the location of ten Fortune 500 corporate headquarters. The County's 2024 Fortune 500 companies include: U.S. Steel (186), PNC Financial Services Group (168), PPG Industries (232), Alcoa (331), Wesco International, Inc. (181), Viatris (256), Dick's Sporting Goods (334), EQT (487), Arconic (426), and Westinghouse Air Brake - Wabtec (453). The County has experienced growth in areas such as technology, tourism, and health care. The County is also a strong supporter of its manufacturing industries and has traditionally been one of the major industrial centers of the world with its access to major fields of coal and shipping access to thousands of miles of navigable rivers. The Port of Pittsburgh is the third busiest inland port in the nation. There is annual benefit to the region for the shipping and receiving of millions of tons of cargo.

The County has undergone an economic transformation spanning more than three decades with a shift from the manufacturing industry to the service and trade industries. Specifically, the focus industries have been healthcare and life sciences, advanced manufacturing, energy, information and communication technology, and financial and business services. This shift is attributed to the continuing diversification of the employment base.

The region's health services sector employs over 150,000 people and is a robust network that is cultivating lifesaving technologies, regenerative medicine, and pharmaceuticals. The University of Pittsburgh Medical Center is a multi-billion-dollar global healthcare enterprise and is the region's top employer, with more than 100,000 staff members in 40 hospitals. Highmark Inc., UnitedHealth Care, Allegheny Health Network, and Mercy Health System are also part of this sector.

Top manufacturers such as ACUTRONIC, Alcoa, Covestro, Calgon Carbon, Kraft Heinz, Howmet Aerospace, PPG Industries, and U.S. Steel are either headquartered or have a presence in the greater County region. Smaller precision tooling and machining companies meet global demands for custom components.

The County and surrounding region has become a national leader in energy technology, innovation, and supply chain related to production, distribution, and efficient usage. The area is home to more than 800 companies in the global energy market, including Aquatech, Chevron, Columbia Gas of PA, CONSOL Energy Inc., EQT, Peoples National Gas, Range Resources, and Westinghouse.

Technology firms, including Google, Duolingo, Aurora/Uber, and Ariba among others, have a presence within the Pittsburgh Region and employ some 86,000 people. A tech-savvy talent pipeline flowing from many area colleges and universities, and a robust network of organizations supporting financial innovation, are helping the region's knowledge-based economy to thrive.

Global financial institutions with headquarters or major business units within the County include PNC Financial Services Group, The Bank of New York Mellon, Citizens Bank, Dollar Bank, Federated Hermes, First Commonwealth Bank, Huntington National Bank, S&T Bank, and TriState Capital.

Two global law firms, K&L Gates and Reed Smith, are based in the City of Pittsburgh, as is Buchanan, Ingersoll & Rooney, and Jones Day – Pittsburgh as well as major insurance companies, including Highmark, UPMC, UnitedHealthcare, and Cigna.

Adding to the County's diverse labor and business climate, some of the most prestigious health, educational, and cultural institutions in the country are located here. The County's colleges and universities include Carnegie Mellon University, Carlow University, Chatham University, Community College of Allegheny County, Duquesne University, La Roche College, Penn State University, Point Park University, Robert Morris University, and the University of Pittsburgh. The County is also home to various junior and technical colleges.

Uber has a 98,600 square foot cutting-edge tech center in Pittsburgh and a testing facility within the City of Pittsburgh where they conduct autonomous vehicle research. Also located in Pittsburgh, is the recently formed American Robotics Manufacturing Institute. Amazon has expanded its footprint into the Pittsburgh region.

In June 2022, the Port Authority of Allegheny County (Port Authority) changed its name to Pittsburgh Regional Transit (PRT) which still serves the metropolitan area by operating buses, light rail vehicles, and the Monongahela incline. PRT also owns the Duquesne Incline, which it leases to the non-profit Society for the Preservation of the Duquesne Heights Incline. PRT is the largest operator of mass transit services in Western Pennsylvania and is among the nation's largest public transportation systems. PRT's 2,600 employees serve nearly 40 million passengers annually with an average daily ridership of approximately 120,000.

Pittsburgh International Airport (PIA), which is recognized as an innovative airport is undertaking a $1.6 billion modernization and renovation project that is anticipated to be completed in 2025. The economic benefits to the Pittsburgh region are substantial, expecting to generate $2.5 billion in economic activity.

The loss of once-dominant, heavy water-use manufacturing such as steel and food processing has had a negative impact on the Authority's residential users. Decline in regional manufacturing over the past two decades has shifted a significant portion of the Authority's cost burden to residential users who have declined as well over the past decade. This decline in consumption base, combined with outside regulatory emphasis on reducing overflows, will have a dramatic impact on rates for years to come.

Additionally, during 2020 the impact of the restrictions imposed by the State of Pennsylvania in response to the coronavirus disease 2019 (COVID-19) on commercial industries such as retail, entertainment, and restaurants and bars amongst many others, had a direct impact on commercial consumption. This decrease in 2020 commercial consumption was partially offset by an increase in residential consumption as much of the local workforce was able to work from their residences and limited travel. 2024, 2023, 2022, and 2021 continued to see minor decreases in consumption with a reversal of the gain in residential consumption experienced in 2020.

- Billed flow for 2024 of 18,684,503 gallons was consistent with the billed flow in 2023 only decreasing slightly by 3,353 gallons. Billed flow for 2023 of 18,687,856 gallons decreased slightly by 118,098 gallons. As seen in the last couple of years, increases in commercial consumption partially offset decreases in residential consumption as the area continues to recover from the COVID-19 pandemic and employees return to office settings. Billed flow for 2022 of 18,805,954 gallons increased by 31,247 gallons.

- In 2024, the Authority treated 65,788 tgal (thousands of gallons), of which 18,684 tgal was billed. Stated differently, the Authority billed for 28.40% of the water it treated. In 2023, the Authority treated 64,203 tgal, of which 18,688 tgal was billed. Billing 29.11% of the water it treated in 2023. In 2022, the Authority treated 70,815 tgal, of which 18,806 tgal was billed or 26.56% of the water treated. The difference between what is treated vs. that which is billed is attributed to direct inflow of storm water from combined sewer communities served and groundwater infiltration into the system from old and deteriorating sewer lines throughout the service area. 2024 estimated annual precipitation was 42.9 inches which was significantly higher than the level experienced in 2023. 2023 estimated annual precipitation was 32.6 inches which was significantly lower than the levels incurred in 2022, which was estimated at 42.41 inches of precipitation, and in 2024.

- The Authority is in compliance with all debt covenants required by the governing Trust Indentures.

- Debt Service Coverage, when allowing for available revenue funds on hand at the beginning of the year was 7.09, which greatly exceeded the 1.10 Trust Requirements. In addition, stand-alone coverage without consideration to beginning balances was 2.25, which exceeded the required 1.00 Trust Requirement.

- On October 28, 2021, the Board of Directors (Board) adopted multi-year rate structure increasing customer service charges 7 percent for in 2022, 7 percent in 2023, 7 percent in 2024, 7 percent in 2025, and 7 percent in 2026.

<u>REQUIRED FINANCIAL STATEMENTS</u>

The financial statements of the Authority report information on the Authority's use of accounting methods that are similar to those used by private sector companies. These statements offer short-term and long-term financial information about its activities.

The Statement of Net Position includes all of the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources and provides information about the nature and amounts of investments in resources (assets) and obligations to Authority creditors (liabilities). The Statement of

Net Position also provides the basis for computing rate of return, evaluating the capital structure of the Authority, and assessing the liquidity and financial flexibility of the Authority.

All of the current year's revenue and expenses are accounted for in the Statement of Revenues, Expenses, and Changes in Net Position. This statement measures the success of the Authority's operations over the past year and can be used to determine whether the Authority has successfully recovered all its costs through its sewage disposal rates and other fees. As required under the Authority's Trust Indenture, the Consulting Engineer, Hatch, has reviewed the rate structure and agrees that a 7 percent rate increase in 2025 is necessary to meet requirements of the Trust Indenture and financial obligations imposed under the federal consent decree rate model structure.

The third required financial statement is its Statement of Cash Flows. The primary purpose of this statement is to provide information about the Authority's cash receipts and cash payments during the reporting period. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities, and the change in cash during the reporting period.

Also included as part of the financial statements are statements related specifically to the Authority's two defined benefit plans: the Statement of Plan Net Position – Pension Trust Funds and the Statement of Changes in Plan Net Position – Pension Trust Funds. These pension plans are described in detail in the notes to the financial statements.

The notes to the financial statements provide required disclosures and other information that are essential to a full understanding of material data provided in the statements. The notes present information about the Authority's accounting policies, significant account balances and activities, material risks, obligations, commitments, contingencies, and subsequent events, if any.

SUMMARY OF ORGANIZATION AND BUSINESS

The Allegheny County Sanitary Authority was incorporated in May 1945 under the Commonwealth of Pennsylvania Municipality Authorities Act of 1945. Plant operations began on April 30, 1959. The Authority serves as the exclusive agency for the collection, transportation, and treatment of wastewater for the city of Pittsburgh and 82 neighboring municipalities. The Authority charges users for processing of wastewater at a flat rate per thousand gallons. Additional charges are levied for septage (solid waste removed from septic tanks) and industrial waste discharges into the system.

In addition to the main treatment site located on the City of Pittsburgh's Northside, the Authority operates and maintains over 90 miles of interceptor sewers, 47 miles of transferred trunk sewers, and seven pumping or ejector stations throughout the service area. The Authority's service area covers over 310 square miles and includes portions of Washington and Westmoreland Counties in addition to Allegheny County.

The Authority's Articles of Incorporation (Articles), as amended, provide that the Authority's Board shall consist of seven members serving staggered five-year terms. Pursuant to the Articles, three members of the Board are appointed by the County, three are appointed by the City of Pittsburgh, and one is jointly appointed by the County and the City of Pittsburgh. The day-to-day operation of the Authority is the responsibility of the Executive Director, who is appointed by the Board to carry out its policies.

FINANCIAL ANALYSIS

The following comparative condensed financial statements and other selected information provides key financial data and indicators for management, monitoring, and planning.

Condensed Statements of Net Position (Balance Sheet)
(In Millions of Dollars)

	2024	2023	$ Change	% Change
Current assets	$497.50	$464.81	$32.69	7.03%
Restricted/designated assets	302.67	200.89	101.78	50.66%
Prepaid bond costs	6.81	6.42	0.39	6.07%
Plant and equipment, net	1,106.78	976.53	130.25	13.34%
Net pension asset	0.00	0.00	0.00	0.00%
Total Assets	1,913.77	1,648.65	265.11	16.08%
Deferred Outflows of Resources	52.12	66.97	-14.85	-22.17%
Current liabilities	74.25	76.00	-1.75	-2.30%
Long-term liabilities	1,087.99	949.75	138.24	14.56%
Total Liabilities	1,162.24	1,025.75	136.49	13.31%
Deferred Inflow of Resources	39.63	32.52	7.11	21.86%
Net Position	$764.02	$657.35	$106.67	16.23%

Condensed Statements of Net Position (Balance Sheet)
(In Millions of Dollars)

	2023	2022	$ Change	% Change
Current assets	$464.81	$390.31	$74.50	19.09%
Restricted/designated assets	200.89	352.98	-152.09	-43.09%
Prepaid bond costs	6.42	6.95	-0.53	-7.63%
Plant and equipment, net	976.53	828.59	147.94	17.85%
Net pension asset	0.00	24.14	-24.14	-100.00%
Total Assets	1,648.65	1,602.97	45.68	2.85%
Deferred Outflows of Resources	66.97	27.31	39.66	145.22%
Current liabilities	76.00	68.93	7.07	10.26%
Long-term liabilities	949.75	961.23	-11.48	-1.19%
Total Liabilities	1,025.75	1,030.16	-4.41	-0.43%
Deferred Inflow of Resources	32.52	40.18	-7.66	-19.06%
Net Position	$657.35	$559.94	$97.41	17.40%

Condensed Statements of Revenues, Expenses And Changes in Net Position (In Millions of Dollars)

	2024	2023	$ Change	% Change
Operating revenues	$240.19	$225.65	$14.54	6.44%
Non-operating revenue	32.91	30.39	2.52	8.29%
Total revenues	273.10	256.04	17.06	6.66%
Operating expenses	105.16	96.23	8.93	9.28%
Non-operating expenses	38.06	40.58	-2.52	-6.21%
Depreciation	23.21	21.82	1.39	6.37%
Total expenses	166.43	158.63	7.80	4.92%
Change in Net Position	106.67	97.41	9.26	9.51%
Net Position, Beginning of Year	657.35	559.94	97.41	17.40%
Net Position, End of Year	$764.02	$657.35	$106.67	16.23%

Condensed Statements of Revenues, Expenses And Changes in Net Position (In Millions of Dollars)

	2023	2022	$ Change	% Change
Operating revenues	$225.65	$211.52	$14.13	6.68%
Non-operating revenue	30.39	7.30	23.09	316.30%
Total revenues	256.04	218.82	37.22	17.01%
Operating expenses	96.23	90.44	5.79	6.40%
Non-operating expenses	40.58	17.53	23.05	131.49%
Depreciation	21.82	21.47	0.35	1.63%
Total expenses	158.63	129.44	29.19	22.55%
Change in Net Position	97.41	89.38	8.03	8.98%
Net Position, Beginning of Year	559.94	470.56	89.38	18.99%
Net Position, End of Year	$657.35	$559.94	$97.41	17.40%

OTHER SELECTED INFORMATION

Selected Data:	2024	2023		Difference	%Change
Authorized employees	573	561		12	2.14%
Actual employees at year-end	436	429		7	1.63%
Wastewater treated (billons of gallons)	66	64		2	3.13%
Wastewater billed (billions of gallons)	19	19		0	0.00%
Percentage of billed/treated wastewater	28.78%	29.11%		-0.33%	-1.13%
Rates:					
Charge per 1,000 gallons of water consumption	$11.14	$10.41		$0.73	7.01%
Account service charge per bill rendered	$23.41	$21.88		$1.53	6.99%
Average customer bill:					
Per year	$628.36	$587.20	*	41.16	7.01%
Per quarter	157.09	146.80	*	10.29	7.01%
Per month	52.36	48.93	*	3.43	7.02%

* Based on 12,000 Gallons per quarter

GENERAL TRENDS AND SIGNIFICANT EVENTS

On September 19, 2019, the United States lodged with the Courts a Proposed Modified Consent Decree. On October 2, 2019, the Modified Consent Decree was published in the Federal Register for a 60-day public comment period. The Federal Government accepted comments from October 2, 2019 to December 2, 2019. The Federal Government considered each comment and responded to the public comments (39 written pages) and presented the response to the U.S. District Court.

After the courts reviewed the public comments, the Modified Consent Decree did not change, and as a result, the Modified Consent Decree was entered into the Courts on May 14, 2020. In consideration with the public comments and government responses, the agencies and the courts indicated that the Modified Consent Decree is fair, adequate, reasonable, and consistent with the purpose of the Clean Water Act and the Clean Streams Law.

The Modified Consent Decree replaces the consent decree that the Court entered on January 24, 2008. The Modified Consent Decree: (1) approves portions of the Wet Weather Plan that the Authority was required to develop pursuant to the 2008 Consent Decree; (2) extends the time frame in which the Authority must implement the Wet Weather Plan; and (3) allows the Authority to propose future amendments to the Wet Weather Plan, which might include replacing some proposed control technologies with source reduction measures that perform equally or better than the remedial measures in the approved Wet Weather Plan. An example of such source reduction measures could be green infrastructure controls.

Appendix Z to the Modified Consent Decree summarizes the construction projects and activities for the Interim Wet Weather Plan which are major components of the Wet Weather Plan. The Authority identifies the approved Wet Weather Plan as the Clean Water Plan.

Summary of Appendix Z

The Authority will complete the Interim Wet Weather Plan (IWWP) by December 31, 2036. Because uncertainties remain regarding the most optimal mix of source reduction measures, an adaptive management framework is necessary to provide for expeditious and affordable program implementation. This framework will provide opportunities to evaluate and integrate green infrastructure and other flow management practices, while prioritizing the regionalization of inter-municipal trunk sewers and key grey infrastructure projects where most cost-effective.

Because the identification of specific flow management project commitments requires on-going coordination with customer municipalities, the IWWP is premised on a phased implementation framework that supports early implementation of green projects, demonstration of effectiveness, and the substitution or reduction of grey infrastructure where flow management measures can be shown to provide equivalent system-wide overflow reduction performance. Accordingly, the framework includes adaptive management milestones where new information can be used to propose modifications to the projects and interim implementation schedules identified herein.

The IWWP is divided into three phases designed to support the adaptive management framework.

Phase 1 projects include highly effective treatment plant expansion projects, preliminary planning projects that will inform adaptive Phase 2 and 3 projects, and existing infrastructure inspection and rehabilitation. Additional detail is as follows:

- **Regional Flow Optimization Strategy and Preliminary Planning.**

  The Authority will work jointly with its customer municipalities to assess the effectiveness of green infrastructure, stream inflow removal, inflow/infiltration reduction, and existing system asset management through preliminary planning and demonstration projects. The resulting regional flow optimization strategy will identify flow management measures to be adaptively incorporated into Phases 2 and 3 and establish the basis of design for Phase 2 and Phase 3 tunnel projects, including any appropriate downsizing. The preliminary basis of design report will include refined tunnel and consolidation sewer construction schedules.

- **Woods Run Wastewater Treatment Plant Expansion.**

  The Authority will expand wet weather treatment capacity of the plant from 250 mgd to 480 mgd and wet weather headworks and disinfection capacity to 600 mgd. It is anticipated that these facilities will be complete and in operation between January 1, 2024 through December 30, 2025.

- **Existing Infrastructure Inspection/Rehabilitation.**

  The Authority will continue its operation and maintenance practices for existing infrastructure, including establishing re-inspection and priority rehabilitation schedules.

Phase 2 projects include high priority conveyance and treatment system improvements. These projects include:

- A wet weather pumping station,
- Expanded primary treatment,
- The Ohio River tunnel segment, including crossings to the existing Chartiers Creek and Saw Mill Run interceptor systems, and
- Cost-effective optimization of the Authority's existing tunnel network.

Phase 3 projects include projects that may be proposed for a modification based on the outcome of Phase 1 and Phase 2 evaluations and demonstration projects.

The IWWP currently includes an estimated $1.8 billion (in 2010 dollars) in identified Authority projects. It is expected that the regional flow optimization strategy, the regionalization of Intermunicipal Trunk Sewers and Associated Facilities, Municipal Source Reduction Studies, and Municipal Source Reduction Measures will identify additional Authority and municipal projects. The established adaptive management framework allows the Authority to submit a request to the Federal and State Government for revising the IWWP such that any alternate controls must achieve equivalent or better system-wide performance than the unaltered IWWP. The Authority will remain committed to close coordination with its customer municipalities in updating regional financial capability analyses so that proposed IWWP revisions do not result in a regional residential indicator greater than 2% of the median household income.

Regionalization

The Authority has committed to make a good faith effort to take responsibility of at least 200 miles of existing Intermunicipal Trunk Sewers and Associated Facilities, including responsibility for controlling associated overflows transferred to the Authority. The Authority has conducted closed-circuit television inspections of these sewers, determined what repairs and improvements are necessary, and is now in the process of working with municipalities to transfer ownership and make the necessary repairs. As of December 31, 2024, the Authority has assumed responsibility for approximately 47 miles of existing Intermunicipal Trunk Sewers.

Clean Water Plan Construction

The Authority is undergoing a major plant expansion in support of the Clean Water Plan, more than doubling our wet weather treatment capacity to meet the region's wastewater treatment needs. The expansion consists of nine design and construction packages. Construction began in 2020 and is expected to conclude in 2029. There are currently six packages under construction.

The North End Plant Expansion includes adding two additional final clarifiers that will bring our total to 18 final clarifiers that provide secondary treatment to our plant flows. With the additional clarifiers, our secondary treatment capacity will increase to 295 million gallons per day (MGD). Also, a new final disinfection tank will disinfect plant flows prior to discharging into the Ohio River. Construction contracts were awarded for the North End Plant Expansion in 2020. Work in 2022 focused on construction of the chlorine contact tank and the eastern of the two final clarifiers. Work in 2023 and 2024 focused on the Secondary Effluent Conduit extension, chlorine contact tank, and chemical building. Construction will continue through 2025.

The East Headworks package entered construction in 2021 with the purpose of increasing our preliminary treatment capacity to a maximum flows of 600 MGD. It is anticipated that the East Headworks facility, to be located in the heart of the current plant footprint, will be completed in the first half of 2025.

Future construction of the two new primary sedimentation tanks to increase wet weather capacity will require demolition of our existing Laboratory and Industrial Waste buildings. A new facility, called the Environmental Compliance Facility (ECF), to house both the laboratory and the industrial waste personnel is being constructed. The ECF will be located at the site of the previous union personnel parking lot, adjacent to the newly constructed parking garage. Construction began in late 2022 and was completed in 2024.

The future Wet Weather Pump Station will be constructed in the same location as the existing 5KV substation. A new 5KV substation will be constructed to replace the existing Substation. As a result, the Electrical Distribution System Upgrade project is reconfiguring the electrical distribution systems to re-feed existing loads currently fed from the existing 5KV substation, as well as prepare the Plant for the increased electrical loads associated with the Plant Expansion. Construction began in 2021 and was substantially completed in 2023.

The increased wet weather capacity at the treatment plant will be achieved by bypassing flows that exceed secondary capacity to a wet weather outfall. The current chlorine contact tank will be modified to reverse flows through the existing tank and a new outfall will be constructed at the north end of the tank. The CSO Bypass and Disinfection project will provide a new chemical feed and storage system for disinfection of the wet weather flows. Also, a flow control structure and conduit will be constructed to route the bypass flows from the primary effluent channel to the modified chlorine contact tank. Construction contracts have been awarded and work began in 2023. The new outfall went into operation in the first quarter of 2025.

Contracts to upgrade the existing Return Activated Sludge (RAS) pump stations with larger pumps and replacing the RAS piping with larger pipe were awarded in 2020. This project allows for increased flow from the existing and new Secondary clarifiers; this is required to increase our "return" flows to keep up with the increased “forward” flows the plant will receive and treat following the plant expansion. Additionally, flow control valves have been installed to better split the RAS flows to the various aeration tanks. Construction was substantially completed in 2023.

Green Infrastructure

The Authority has committed $200 million towards this strategy, including support for municipal flow reduction partnerships. The Authority’s Green Revitalization of Our Waterways Program (GROW) has awarded over $90 million so far in grants to our member municipalities dedicated to green infrastructure.

Clean Water Assistance Program

Recognizing that increasing rates will have a negative impact on our service area’s most vulnerable ratepayers, the Authority implemented a customer assistance program in 2017. Qualified homeowners who meet family income limits set by the federal government will receive approximately the first 4,000 gallons of quarterly consumption free. In 2024, this resulted in approximately 1,644 Authority customers receiving an annual credit of $180.

For 2025, the quarterly assistance payment was increased to $50 per quarter, or an annual credit of $200. The program is being administered by the nationally recognized Dollar Energy Fund. The Authority expects participation in the program to grow as rates continue to increase in order to fund compliance with the consent decree.

FINANCIAL CONDITION

The Authority continued to achieve outstanding financial results in 2024 with debt service coverage ratios and days cash on hand that continue to exceed requirements and expectations. Debt service coverage maintained a ratio above 200 percent for a third year in a row at 224.87%, 209.77%, and 210.77% in 2024, 2023, and 2022, respectively. When considering beginning cash balances available after reserving 25 percent, the Authority achieved a record 708.70% debt service coverage in 2024 and 587.69% in 2023. In their May 2019 issue of OUTLOOK, Moody’s Investor Services highlighted the Authority’s strong liquidity position by noting its achievement of 684 days cash on hand in 2018. Liquidity improved even further in 2019 with days cash on hand increasing to 780 days, and again in 2020 with days cash on hand of 907 days. Cash on hand at the end of 2021, 2022, and 2023 increased yet again to 1,110 days, 1,257 days, and 1,451 days, respectively. At December 31, 2024, the Authority had 1,414 days of cash on hand. While unrestricted for its use, a portion of this cash is anticipated to be used to fund the Authority’s substantial capital program.

RESULTS OF OPERATIONS

Operating Revenue:

Operating revenues of $240,198,345 increased 6.44 percent over 2023, reflecting a 7 percent increase in customer rates implemented at the beginning of the year complimented by a small decrease in overall consumption. Overall billed consumption decreased by 3,354 tgals for the year compared to 2023. Commercial consumption increased by 109,452 tgals as businesses continued to recover from COVID-19. This increase was offset by a decrease in residential consumption by 112,806 tgals. The decrease in residential consumption was also impacted by COVID-19, as less time was spent in local residences than in the previous year as employees continue to migrate back into offices.

Almost all of the Authority's revenue was derived from customer billing for sewage treatment service, the Authority received no subsidies and a modest $229,307 in grant income. The Authority, the City of Pittsburgh, and 82 other municipalities in and around Allegheny County have entered into agreements (Standard Municipal Agreements) under which the Authority is designated (within its service area) the exclusive agent of the respective municipality to furnish sewage treatment and disposal service. Each municipality contracting with the Authority is given two options with respect to billing, "Direct" or "Lump-sum." With the Direct method of billing, accounts not paid within 60 days become the responsibility of the community; thus, the Authority insures no bad debt. Under the Direct method, Authority bills and collects for its services directly from the individual customer. Under the Lump-sum method, consumption for the entire community is compiled and billed to the municipality, which in turn bills its own residents. All but three municipalities utilize this method of billing in order to attach fees for local sewer infrastructure maintenance. Under both scenarios, the Authority is guaranteed full payment for services.

Operating Expenses:

Operating expenses in 2024 of $105 million increased by 9.28 percent over the 2023 operating expenses of $96 million. In 2024, outside Interceptor cleaning contracts added to the cost of maintaining the collection system continued to increase in 2024 as some of these costs did not occur in 2023. General inflation has also impacted the cost of items that are used in operating and maintaining the plant. Also contributing to the increase is that while the Authority hired approximately 31 employees in 2024, there were 24 employees who either retired or left the Authority, as such there are seven more employees in 2024 as compared to 2023.

Depreciation and Non-operating Expenses:

Depreciation expense increased by $1,393,813 as a result of plant assets being placed into service and starting to be depreciated. The Authority is in a period of growth to comply with the Clean Water Plan as described earlier in the General Trends and Significant Events section of this Management Discussion and Analysis. It is expected that construction in progress will continue to grow substantially through the completion of the Clean Water Plan anticipated to be completed in 2036. As of the end of 2024, the Authority assumed responsibility for approximately 47 miles of intermunicipal lines through regionalization. These assets were evaluated at the time of transfer and based on the age and condition of the transferred lines it was determined that these assets were fully depreciated and of no substantial value at the time of transfer.

More detailed information about the Authority's capital assets and the Clean Water Plan is presented in the notes to the financial statements.

Non-operating expenses also reflect changes to pension funding calculated under GASB Statement No. 68 and the 2018 implementation of GASB Statement No. 75 related to Other Post-Employment Benefits. Calculations with regard to both GASB Statement Nos. 68 and 75 are prepared by the Authority's Actuary. In addition, GASB Statement No. 89 implemented in 2019 resulted in the elimination of the capitalization of interest expense on capital projects. The result was an increase in recognized interest revenues and bond interest expense that would have been shown net and capitalized as part of capital assets under construction.

Non-operating Revenues:

Interest earnings on the Authority's liquid funds remained consistent with the prior year and interest rates on money market and treasury holdings decreased slightly in 2024 over the returns in 2023. The decrease in rates was offset by an overall increase in cash and investment balances.

The Authority recognized $229,307 in 2024 in grant income primarily from the US Army Corps of Engineers related to funds received for a capital project. The Authority has applied for grants that may be awarded in the upcoming year(s).

Litigation Contingency:

As noted above, the Authority has finalized an agreement with U.S. EPA, Pennsylvania DEP, and the Allegheny County Health Department (Agencies) regarding wet weather overflows in the sanitary sewer system. The agreement called for the payment of civil penalties in the amount of $400,000 to each of the three noted agencies. As of January 8, 2009, all of the above-noted agencies have been paid.

Additional penalties may be incurred if the Authority fails to meet specific project deadlines as detailed in the agreement.

Debt:

At year-end, the Authority had $1,102.5 million in long- and short-term debt.

During 2024, the Authority issued $250,560,000 in Sewer Revenue Bonds to provide additional funding for the Capital Improvement program and to refund the Series 2013 bonds. A new money issue is being considered for 2025 which may also include refunding of the Series 2015 bonds depending on market conditions at that time.

The Authority did not issue any new debt in 2023 but continued to fund the long-term capital plan from bond proceeds from existing issues.

More detailed information about the Authority's long-term debt is presented in the notes to the financial statements.

FINAL COMMENTS

In announcing the filing of the Modified Consent Decree on September 19, 2019, Executive Director Arletta Scott Williams publically noted her pleasure at the positive results achieved over the course of negotiations with the Agencies. "We heard the public's input on the first plan, especially when it came to the price tag associated with making these required changes to our system. Being able to reduce the cost to ratepayers, extending the timetable to 2036 and having the ability to adapt the plan to include new advances in stormwater management are all key to reaching our goal of reducing overflows."

Recognizing that increasing rates to fund the Consent Decree will have a negative financial impact on many households in our service area, the Authority implemented a customer assistance program in 2017 providing, in effect, the first 4000 gallons of consumption per quarter free. In 2018, the Authority increased the quarterly assistance payment from $30 to $32, and has continued to increase the quarterly assistance payment each year. The Authority has announced that for 2025, the quarterly assistance payment will increase to $50.

You have the opportunity to become an informed participant in this program. Become familiar with the Consent Decree by reviewing it on-line at *www.alcosan.org* or by contacting our Public Relations Department for a copy.

CONTACTING THE AUTHORITY'S DIRECTOR OF FINANCE

This financial report is designed to provide our citizens, customers, and creditors with a general overview of the Authority's finances and to demonstrate the Authority's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Allegheny County Sanitary Authority's Director of Finance at 3300 Preble Avenue, Pittsburgh, PA 15233.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF NET POSITION

DECEMBER 31, 2024 AND 2023

Assets and Deferred Outflows of Resources

	2024	2023
Assets:		
Current assets:		
Cash and cash equivalents	$ 407,374,060	$ 382,535,262
Accounts receivable:		
Billed sewer revenue	26,714,839	23,638,302
Unbilled sewer revenue	55,196,831	51,387,922
Other	520,751	30,626
Other current assets	7,697,498	7,217,236
Total current assets	497,503,979	464,809,348
Restricted/designated assets:		
Cash and cash equivalents	181,475,016	178,954,345
Investments	121,198,730	21,883,846
Accrued interest receivable	-	55,339
Total restricted/designated assets	302,673,746	200,893,530
Prepaid bond costs	6,809,008	6,418,365
Nondepreciable capital assets:		
Land	26,038,290	23,110,313
Construction in progress	396,981,896	299,726,893
Total nondepreciable capital assets	423,020,186	322,837,206
Depreciable capital assets - at cost, net of accumulated depreciation	683,759,709	653,697,636
Total	1,106,779,895	976,534,842
Total Assets	1,913,766,628	1,648,656,085
Deferred Outflows of Resources:		
Related to pensions	46,649,581	60,980,053
Related to other post-retirement benefits	2,372,737	2,272,198
Refunding adjustment	3,092,954	3,714,432
Total Deferred Outflows of Resources	52,115,272	66,966,683
Total Assets and Deferred Outflows of Resources	$ 1,965,881,900	$ 1,715,622,768

Liabilities, Deferred Inflows of Resources, and Net Position

	2024	2023
Liabilities:		
Current liabilities:		
Accounts payable	$ 20,406,348	$ 16,132,729
Accounts payable - capital	9,207,418	15,205,717
Accrued liabilities:		
Compensated absences	5,554,664	4,985,334
Salaries and wages	1,161,386	2,418,572
Accrued interest on bonds	4,007,132	3,401,697
Reserve for litigation	2,363,405	2,365,905
Current maturities of sewer revenue bonds	31,545,000	31,490,000
Total current liabilities	74,245,353	75,999,954
Long-term liabilities:		
Other post-employment benefits	11,537,705	11,203,983
Net pension liability	5,498,924	29,541,132
Sewer revenue bonds - less current maturities	995,220,000	842,070,000
Unamortized bond premium	75,732,248	66,935,029
Net long-term debt	1,070,952,248	909,005,029
Total long-term liabilities	1,087,988,877	949,750,144
Total Liabilities	1,162,234,230	1,025,750,098
Deferred Inflows of Resources:		
Related to pensions	33,887,286	25,868,844
Related to other post-retirement benefits	5,745,035	6,658,653
Total Deferred Inflows of Resources	39,632,321	32,527,497
Net Position:		
Net investment in capital assets	310,049,347	240,647,775
Unrestricted	453,966,002	416,697,398
Total Net Position	764,015,349	657,345,173
Total Liabilities, Deferred Inflows of Resources, and Net Position	$ 1,965,881,900	$ 1,715,622,768

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2024 AND 2023

	2024	2023
Operating Revenues	$ 240,198,345	$ 225,649,201
Operating Expenses:		
Treatment	61,804,890	57,357,729
Intercepting sewer systems	14,369,227	11,238,294
Upper Allegheny system	437,122	471,611
Administrative and engineering	19,097,015	18,510,806
Billing and collecting	4,307,067	4,322,436
Management information systems	5,148,110	4,332,080
Total operating expenses before depreciation	105,163,431	96,232,956
Operating Income Before Depreciation	135,034,914	129,416,245
Depreciation	23,214,779	21,820,966
Operating Income	111,820,135	107,595,279
Non-Operating Revenues (Expenses):		
Intergovernmental grants	229,307	-
Interest income	30,305,648	30,149,114
Interest expense on bonds	(37,535,668)	(37,501,503)
Amortization of prepaid bond costs	(499,431)	(534,980)
Loss on capital assets retired	(23,544)	-
Change in value of pension related items	1,693,294	(2,542,642)
Change in value of OPEB related items	680,435	242,502
Total non-operating revenues (expenses)	(5,149,959)	(10,187,509)
Change in Net Position	106,670,176	97,407,770
Net Position:		
Beginning of year	657,345,173	559,937,403
End of year	$ 764,015,349	$ 657,345,173

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2024 AND 2023

	2024	2023
Cash Flows From Operating Activities:		
Cash received from customers	$ 232,822,768	$ 222,438,595
Cash paid to suppliers	(35,650,291)	(31,154,271)
Cash paid to employees	(66,410,133)	(62,581,572)
Net cash provided by (used in) operating activities	130,762,344	128,702,752
Cash Flows From Capital and Related Financing Activities:		
Interest paid on bonds	(43,191,999)	(43,235,052)
Principal paid on bonds	(32,600,000)	(32,830,000)
Proceeds from debt issues	250,560,000	-
Bond premium	15,680,462	-
Payments to refund bonds	(64,755,000)	-
Prepaid bond costs	(890,075)	-
Acquisition and construction of capital assets	(159,481,673)	(163,849,676)
Intergovernmental grants	229,307	-
Net cash provided by (used in) capital and related financing activities	(34,448,978)	(239,914,728)
Cash Flows From Investing Activities:		
Purchase of investment securities	(121,198,730)	-
Proceeds from sale and maturities of investment securities	21,985,340	224,176,773
Interest earnings	30,259,493	25,632,867
Net cash provided by (used in) investing activities	(68,953,897)	249,809,640
Increase (Decrease) in Cash and Cash Equivalents	27,359,469	138,597,664
Cash and Cash Equivalents:		
Beginning of year, including $178,954,345 and $111,375,912, respectively, in restricted/designated accounts	561,489,607	422,891,943
End of year, including $181,475,016 and $178,954,345, respectively, in restricted/designated accounts	$ 588,849,076	$ 561,489,607
Noncash Capital and Related Financing Activities:		
Property, plant, and equipment additions reflected in accounts payable	$ 9,207,418	$ 15,205,717
Reconciliation of Operating Income to Net Cash Provided by (Used in) Operating Activities:		
Operating income	$ 111,820,135	$ 107,595,279
Adjustments to reconcile operating income to net cash provided by (used in) operating activities:		
Depreciation	23,214,779	21,820,966
Change in operating assets and liabilities:		
Accounts receivable	(7,375,571)	(3,210,602)
Other current assets	(480,262)	(273,400)
Accounts payable	4,273,619	2,785,649
Accrued liabilities	(690,356)	(15,140)
Net adjustments	18,942,209	21,107,473
Net cash provided by (used in) operating activities	$ 130,762,344	$ 128,702,752

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF FIDUCIARY NET POSITION
PENSION TRUST FUNDS

DECEMBER 31, 2024 AND 2023

	2024	2023
Assets		
Dividends and interest receivable	$ 1,329,165	$ 881,328
Cash and cash equivalents	4,662,589	4,275,220
Investments at fair value:		
U.S. government securities	42,031,694	41,354,039
Corporate and utility bonds	39,004,288	35,703,919
Equity securities	160,831,112	137,579,024
Municipal bonds	3,092,691	2,712,233
Foreign bonds	2,034,023	2,424,450
Mortgages	4,656,490	3,647,209
ETFs	10,348,613	8,722,489
Mutual funds	880,758	757,982
Asset backed securities	3,765,870	3,336,432
Total investments at fair value	266,645,539	236,237,777
Total Assets	$ 272,637,293	$ 241,394,325
Liabilities and Net Position		
Liabilities:		
Purchases pending settlement	$ 296,578	$ -
Total Liabilities	296,578	-
Net Position:		
Net position restricted for pension benefits	272,340,715	241,394,325
Total Liabilities and Net Position	$ 272,637,293	$ 241,394,325

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
PENSION TRUST FUNDS

YEARS ENDED DECEMBER 31, 2024 AND 2023

	2024	2023
Additions:		
Contributions:		
Employer	$ 6,733,405	$ 7,578,091
Employee	733,021	623,420
Total contributions	7,466,426	8,201,511
Investment income:		
Net appreciation (depreciation) in fair value of investments	20,199,601	31,364,658
Realized gain (loss)	10,484,028	2,711,304
Interest and dividends	5,746,410	5,113,020
Total investment income (loss)	36,430,039	39,188,982
Other income	42,397	64,674
Total additions	43,938,862	47,455,167
Deductions:		
Benefits	12,634,729	11,945,751
Distribution expenses	188,186	164,048
Administrative expense	169,557	798,732
Total deductions	12,992,472	12,908,531
Change in Plan Net Position	30,946,390	34,546,636
Net Position:		
Beginning of year	241,394,325	206,847,689
End of year	$ 272,340,715	$ 241,394,325

The notes to financial statements are an integral part of this statement.

1. Organization

The Allegheny County Sanitary Authority (Authority) was incorporated in May 1945 under the Commonwealth of Pennsylvania Municipality Authorities Act of 1945. The Authority serves as the exclusive agency for the collection, transportation, and treatment of wastewater for the City of Pittsburgh and 82 neighboring municipalities. The Authority charges users for processing of wastewater at applicable rates. Additional charges are levied for septage (solid waste removed from septic tanks) and industrial waste discharges into the system.

In evaluating the Authority as a primary government in accordance with Governmental Accounting Standards Board (GASB) guidance, management has addressed all potential component units. The criteria used by the Authority to evaluate possible inclusion of related entities within its reporting entity are financial accountability and the nature and significance of the relationship.

Upon review of the criteria above, the Authority determined that there were no potential component units that met the criteria for inclusion in the reporting entity.

The Authority operates as a stand-alone entity governed by a Board of Directors appointed by the City of Pittsburgh and County of Allegheny. Neither the City of Pittsburgh nor the County of Allegheny appoints a voting majority of the Authority’s Board of Directors.

2. Summary of Significant Accounting Policies

Measurement Focus

The Authority uses "income determination" as its measurement focus. Accordingly, all assets, liabilities, deferred inflows, and deferred outflows are included on the statement of net position and net position reflects the economic net worth of the Authority. The operating statement reflects the change in total economic net worth for the period, presented through revenues and expenses of the Authority.

Fiduciary Funds

Fiduciary funds are used to account for assets held in a trustee capacity. The Authority reports the following fiduciary funds:

The *Pension Trust Funds* are used to account for employee retirement systems.

- The Management Pension Fund accounts for assets of the Authority management employees' retirement pension plan.

- The Union Pension Fund accounts for assets of the Authority union employees' retirement pension plan.

Basis of Accounting

The financial statements of the Authority for the years ended December 31, 2024 and 2023 have been prepared on the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recognized when incurred.

Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the Authority. Operating revenues consist primarily of user charges. Non-operating revenues and expenses consist of those revenues and expenses that are related to grants and other financing and investing type of activities.

Cash and Cash Equivalents

For purposes of the statements of cash flows, the Authority considers all highly liquid investments with a maturity of three months or less when purchased to be cash and cash equivalents.

Investments

Investments are recorded at fair value at December 31, 2024 and 2023.

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

Accounts Receivable

Accounts receivable consist of amounts due from customers, lump-sum billings to municipalities (which in turn bill customers individually), and estimated unbilled services since the previous billing.

Under the terms of the respective servicing agreements, each local municipality is responsible for the payment to the Authority and subsequent collection of individual customer billings outstanding over 60 days. Accordingly, an allowance for doubtful accounts is currently not considered necessary by management.

Prepaid Bond Costs

Certain prepaid bond issue and surety bond costs are deferred and amortized over the life of the related outstanding bonds. The original amortization periods are as follows:

Description	Amortization Period
2015 Bonds	30 years
2016 Bonds	21 years
2018 Bonds	30 years
2020 Bonds	30 years
2022 Bonds	30 years
2024 Bonds	31 years

Refunding Adjustment

In accordance with GASB pronouncements, the excess of the reacquisition price over the net carrying amount of debt refunded with proceeds from Series 2024, Series 2020, Series 2016, and Series 2015 Bonds were recorded as refunding adjustments. The refunding adjustments are being amortized using the effective interest method over the originally scheduled life of the defeased issues, which extend to 2055, 2051, 2037, and 2045 respectively. The unamortized balances are reflected as deferred outflows of resources.

Capital Assets

Capital assets are recorded at cost. Depreciation of capital assets is provided for on the straight-line method based on the estimated useful lives of the various classes of assets. Maintenance and repairs are charged to expense as incurred. Estimated useful lives of major classes of assets are as follows:

Land improvements	40 years
Buildings and improvements	50 years
Utility plant in service	60 years
Machinery and equipment	3-20 years

The cost of the study for a potential capital project is capitalized in construction in progress. Upon commencement of the related capital project, the cost of the study is allocated to the project. Upon the Authority's final determination that a project is not viable, the cost of the study is expensed.

Deferred Outflows and Inflows of Resources

In addition to assets and liabilities, the statement of net position will sometimes report separate sections for deferred outflows and deferred inflows of resources. Deferred outflows of resources represent a consumption of net assets that applies to a future period while deferred inflows of resources represents an acquisition of net position that applies to future periods.

Compensated Absences

Vested or accumulated vacation and sickness leave are recorded as a liability and expensed as the benefits accrue to employees.

Pension Plans

Substantially all full-time employees of the Authority are enrolled in one of two single-employer defined benefit pension plans. For purposes of measuring the net pension liability, deferred outflows of resources related to pensions, and pension expense, information about the fiduciary net position of the pension plans, as well as additions to and deductions from the pension plan fiduciary net position have been determined using the economic resources measurement focus and accrual basis of accounting. Employer contributions are recognized when due and the employer has a legal requirement to provide the contributions. Investments are reported at fair value.

Post-retirement Benefits

The Authority provides certain health insurance benefits to retirees. The costs of these benefits are recognized in accordance with accounting principles generally accepted in the United States of America and are funded when paid.

Deferred Compensation Plan

The Authority offers its employees a deferred compensation plan (plan) created in accordance with Internal Revenue Code Section 457. The plan, available to all employees, permits them to defer a portion of their salaries until future years. Participation in the plan is optional. The deferred compensation is not available to the employee until termination, retirement, death, or unforeseeable emergency. At December 31, 2024 and 2023, all amounts of compensation deferred under the plan, all property and rights purchased with those amounts, and all income attributable to those amounts, are held in trust solely for the benefit of the participants. Investments are managed by the plan’s trustee under several investment options selected by the participant. Under applicable GASB pronouncements, the plan is not required to be included in the Authority’s financial statements.

Net Position

The Authority is required to report three components of net position:

Net Investment in Capital Assets – This component of net position consists of capital assets net of accumulated depreciation and is reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.

Restricted – This component of net position consists of constraints placed on net position use through external restrictions. The Authority, at times, has restricted net position related to its debt service reserves, as required by the bond indenture, as well as restricted net position related to pension benefits for the Authority's pension plan.

Unrestricted – This component of net position consists of net position that does not meet the definition of “restricted” or “net investment in capital assets.”

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Adopted Pronouncements

The following GASB Statements were adopted for the year ended December 31, 2024: Statement Nos. 100 (Accounting Changes and Error Corrections) and 101 (Compensated Absences). These statements had no significant impact on the Authority's financial statements for the year ended December 31, 2024.

Pending Pronouncements

GASB has issued statements that will become effective in future years including Statement Nos. 102 (Certain Risk Disclosures), 103 (Financial Reporting Model Improvements), and 104 (Disclosure of Certain Capital Assets). Management has not yet determined the impact of these statements on the financial statements.

3. Revenue Bonds

On December 19, 2013, the Authority issued $64,755,000 of Sewer Revenue Bonds Series of 2013, called the 2013 Bonds. The proceeds of the 2013 Bonds were used to provide additional funding for the Authority's capital projects in 2014 and 2015.

The 2013 Bonds were issued at a bond premium of $2,711,736, which was being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2013 Bonds bore interest at rates ranging from 3.50% to 5.00%. Interest was payable in semiannual installments on June 1 and December 1 until maturity. The 2013 Bonds, which had a final maturity date of December 1, 2044, were subject to redemption prior to maturity. The 2013 Bonds were refunded as part of the issuance of the 2024 Bonds.

On September 3, 2015, the Authority issued $265,270,000 of Sewer Revenue Bonds Series of 2015, called the 2015 Bonds. The proceeds of the bonds were used to currently refund all of the Authority's outstanding Sewer Revenue Bonds Refunding Series of 2005 and to provide additional funding for the Authority's capital projects.

The 2015 Bonds were issued at a premium of $36,708,408, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2015 Bonds bear interest at rates ranging from 2.00% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2015 Bonds, which have a final maturity date of December 1, 2045, are subject to redemption prior to maturity. At December 31, 2024 and 2023, the 2015 Bonds payable consisted of $113,400,000 and $128,130,000, respectively.

On September 8, 2016, the Authority issued $106,205,000 of Sewer Revenue Bonds Refunding Series of 2016, called the 2016 Bonds. The proceeds of the bonds were used to advance refund all of the Authority's outstanding Sewer Revenue Bonds Refunding Series of 2007 and to provide additional funding for the Authority's capital projects. The defeased bonds were repaid in full during 2017.

The 2016 Bonds were issued at a premium of $13,012,378, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2016 Bonds bear interest at rates ranging from 0.90% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2016 Bonds, which have a final maturity date of December 1, 2037, are subject to redemption prior to maturity. At December 31, 2024 and 2023, the 2016 Bonds payable consisted of $97,740,000 and $104,455,000, respectively.

On September 6, 2018, the Authority issued $157,230,000 of Sewer Revenue Bonds Series of 2018, called the 2018 Bonds. The proceeds of the bonds were to finance a portion of the Authority's capital budget for the years 2018 to 2020.

The 2018 Bonds were issued at a premium of $12,092,896, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2018 Bonds bear interest at rates ranging from 3.25% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2018 Bonds, which have a final maturity date of June 1, 2048, are subject to redemption prior to maturity. At

December 31, 2024 and 2023, the 2018 Bonds payable consisted of $156,985,000 and $157,230,000, respectively.

On October 1, 2020, the Authority issued $153,995,000 of Sewer Revenue Bonds Series of 2020, called the 2020 Bonds. The proceeds of the bonds were used to advance refund all of the Authority's outstanding Sewer Revenue Bonds Series of 2010 and to provide additional funding for the Authority's capital projects. The refunded Series 2010 bonds were paid in full in 2020.

The 2020 Bonds were issued at a premium of $25,034,803, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2020 Bonds bear interest at rates ranging from 2.13% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2020 Bonds, which have a final maturity date of June 1, 2050, are subject to redemption prior to maturity. At December 31, 2024 and 2023, the 2020 Bonds payable consisted of $147,540,000 and $151,840,000, respectively.

On November 10, 2022, the Authority issued $267,150,000 of Sewer Revenue Bonds Series of 2022, called the 2022 Bonds. The proceeds of the bonds were used to finance a portion of the Authority's capital budget for the years 2022 through 2024.

The 2022 Bonds were issued at a premium of $16,189,349, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2022 Bonds bear interest at rates ranging from 4.38% to 5.75%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2022 Bonds, which have a final maturity date of June 1, 2053, are subject to redemption prior to maturity. At December 31, 2024 and 2023, the 2022 Bonds payable consisted of $267,150,000.

On September 25, 2024, the Authority issued $250,560,000 of Sewer Revenue Bonds Series of 2024, called the 2024 Bonds. The proceeds of the bonds were used to refund all of the Authority's outstanding Sewer Revenue Bonds Series of 2013 and to provide additional funding for the Authority's capital projects. The refunded Series 2013 Bonds were paid in full in 2024.

The 2024 Bonds were issued at a premium of $15,680,462, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2024 Bonds bear interest at rates ranging from 4.00% to 5.25%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2024 Bonds, which have a final maturity date of December 1, 2055, are subject to redemption prior to maturity. At December 31, 2024, the 2024 Bonds payable consisted of $243,950,000.

A summary of long-term debt is as follows for the years ended December 31, 2024 and 2023, respectively:

	Balance 1/1/2024	New Issue	Retired	Balance 12/31/2024	Unamortized Premium	Bonds Payable, net	Current Portion
2013 Series	$ 64,755,000	$ -	$ (64,755,000)	$ -	$ -	$ -	$ -
2015 Series	128,130,000	-	(14,730,000)	113,400,000	12,655,533	126,055,533	9,805,000
2016 Series	104,455,000	-	(6,715,000)	97,740,000	6,480,448	104,220,448	8,790,000
2018 Series	157,230,000	-	(245,000)	156,985,000	8,473,687	165,458,687	440,000
2020 Series	151,840,000	-	(4,300,000)	147,540,000	18,002,623	165,542,623	4,440,000
2022 Series	267,150,000	-	-	267,150,000	14,584,137	281,734,137	4,490,000
2024 Series	-	250,560,000	(6,610,000)	243,950,000	15,535,820	259,485,820	3,580,000
Total	$ 873,560,000	$ 250,560,000	$ (97,355,000)	$ 1,026,765,000	$ 75,732,248	$ 1,102,497,248	$ 31,545,000

	Balance 1/1/2023	New Issue	Retired	Balance 12/31/2023	Unamortized Premium	Bonds Payable, net	Current Portion
2013 Series	$ 64,755,000	$ -	$ -	$ 64,755,000	$ 1,410,600	$ 66,165,600	$ 5,500,000
2015 Series	159,850,000	-	(31,720,000)	128,130,000	14,171,219	142,301,219	14,730,000
2016 Series	104,455,000	-	-	104,455,000	7,273,578	111,728,578	6,715,000
2018 Series	157,230,000	-	-	157,230,000	9,053,627	166,283,627	245,000
2020 Series	152,950,000	-	(1,110,000)	151,840,000	19,662,008	171,502,008	4,300,000
2022 Series	267,150,000	-	-	267,150,000	15,363,997	282,513,997	-
Total	$ 906,390,000	$ -	$ (32,830,000)	$ 873,560,000	$ 66,935,029	$ 940,495,029	$ 31,490,000

The 2015, 2016, 2018, 2020, 2022, and 2024 Bonds are collateralized by the net revenues of the Authority and a combination of Surety Bonds and cash, as required by the trustee and all amounts held in the Revenue Fund and all amounts held by the trustees.

In accordance with the provisions of the Trust Indentures for the bonds payable, the Authority has established categories of accounts (current, special, and debt service) with certain assets, principally short-term investments, restricted for specific purposes. Each account category is further segregated into specific accounts referred to as funds. All revenues are required by the Trust Indentures to be deposited in a Revenue Fund. These Trust Indentures also require that rates be sufficient to pay current expenses of the Authority, 110% of the debt service requirements for the current fiscal year, and all amounts owed to the Bond Issuer under the terms of the Financial Guaranty Agreement. Current expenses are defined, generally, as the costs of operating and maintaining the sewer system as determined under accounting principles generally accepted in the United States of America, except for depreciation and interest expense.

Funds created as a result of the governing Trust Indentures and by Board of Directors' resolutions are summarized as follows:

	2024	2023
Current account:		
Revenue Fund	$ 407,374,060	$ 382,535,262
Special accounts:		
Capital Facilities Fund	$ 68,786,358	$ 78,767,616
Construction Fund - 2022	89	121,960,572
Construction Fund - 2024	160,001,837	-
	$ 228,788,284	$ 200,728,188
Debt service accounts:		
Debt Service Fund	$ 465,321	$ 165,342
Debt Service Reserve Fund - 2018	12,375,491	-
Debt Service Reserve Fund - 2020A	15,688,242	-
Debt Service Reserve Fund - 2020B	3,525,747	-
Debt Service Reserve Fund - 2022	23,318,701	-
Debt Service Reserve Fund - 2024	18,511,960	-
	$ 73,885,462	$ 165,342

Schedule of Required Debt Service

Maturities of all outstanding bonds of the Authority, in the aggregate, are as follows:

	Principal	Interest	Total Debt Service
2025	$ 31,545,000	$ 47,701,538	$ 79,246,538
2026	31,095,000	45,861,469	76,956,469
2027	32,175,000	44,569,645	76,744,645
2028	32,245,000	42,948,143	75,193,143
2029	33,200,000	41,396,292	74,596,292
2030-2034	176,100,000	183,064,290	359,164,290
2035-2039	198,280,000	142,048,848	340,328,848
2040-2044	188,645,000	100,035,200	288,680,200
2045-2049	161,360,000	56,412,612	217,772,612
2050-2054	129,985,000	19,728,488	149,713,488
2055	12,135,000	583,069	12,718,069
Total	$ 1,026,765,000	$ 724,349,594	$ 1,751,114,594

The total debt service schedule in Note 14 represents the total debt service requirements (principal, interest, and sinking fund requirements) of the Authority's bond issuances, by issue and in the aggregate.

4. Interest Cost

Interest cost, including amortization of refunding adjustments, bond premiums, and prepaid bond costs, for the years ended December 31, 2024 and 2023 were as follows:

	2024	2023
2013 Bonds	$ 2,362,451	$ 3,149,935
2015 Bonds	4,941,586	6,136,779
2016 Bonds	3,612,999	3,640,978
2018 Bonds	6,526,396	6,533,093
2020 Bonds	4,251,605	4,323,954
2022 Bonds	13,597,370	14,251,744
2024 Bonds	2,742,692	-
	$ 38,035,099	$ 38,036,483

5. Deposits and Investments with Financial Institutions

The investment and deposit policy of the Authority funds is governed by the Trust Indentures and the Municipal Authority Act. In accordance with these regulations, the Authority is authorized to invest in obligations of the U.S. Treasury, agencies and instrumentalities; certificates of deposits, time deposits or deposits in savings accounts, fully insured or collateralized; commercial paper of the highest rating; bonds or notes issued by the Commonwealth of Pennsylvania, political subdivision, or related school district; repurchase agreements; money market mutual funds; and investment agreements with any bank or insurance company. Throughout the years ended December 31, 2024 and 2023, the Authority invested in authorized investments that consisted of U.S. government obligations, short-term commercial paper, money market mutual funds, an external investment pool, and guaranteed investment contracts. There were no deposit or investment transactions during 2024 and 2023 that were in violation of either state statutes or the policies of the Authority. The Authority does not have a formal investment policy which addresses custodial credit risk, interest rate risk, credit risk, or concentration of credit risk. The Authority can withdraw funds from the external investment pools without limitations or fees.

GASB requires disclosures related to the following deposit and investment risks: credit risk (including custodial credit risk and concentrations of credit risk), interest rate risk, and foreign currency risk. The following is a description of the Authority’s deposit and investment risks:

Custodial Credit Risk - Custodial credit risk is the risk that in the event of a bank failure, the Authority’s deposits may not be returned to it. As of December 31, 2024, $32,698,064 of the Authority’s bank balance of $32,948,064 was exposed to custodial credit risk, which is collateralized in accordance with Act 72 of the Pennsylvania state legislature, which requires the institution to pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name. These deposits have carrying amounts of $31,909,923 as of December 31, 2024. As of December 31, 2023, $16,067,717 of the Authority’s bank balance of $16,505,337 was exposed to custodial credit risk, which is collateralized in accordance with Act 72 of the Pennsylvania state legislature, which requires the institution to pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name. These deposits have carrying amounts of $15,897,332 as of December 31, 2023.

Included in cash and cash equivalents on the statements of net position are short-term investments in money markets and PA INVEST.

At December 31, 2024, the Authority held the following investment balances:

	Carrying Value	Maturity in Years Less Than 1 Year	1-5 Years
U.S. Government Agencies	$ 121,198,730	$ 121,198,730	$ -
Money Market Funds	554,465,065	554,465,065	-
PA INVEST	2,474,088	2,474,088	-
Total	$ 678,137,883	$ 678,137,883	$ -

At December 31, 2023, the Authority held the following investment balances:

	Carrying Value	Maturity in Years Less Than 1 Year	1-5 Years
U.S. Government Agencies	$ 21,883,846	$ 21,883,846	$ -
Money Market Funds	543,241,779	543,241,779	-
PA INVEST	2,350,496	2,350,496	-
Total	$ 567,476,121	$ 567,476,121	$ -

The carrying value of the Authority's investments is the same as their fair value amount. Money markets are valued using quoted market prices (Level 1 inputs). The fair values of U.S. government agency securities are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are included in the Level 2 fair value hierarchy.

The Authority's investments in the external investment pool (INVEST) are the same as the value of the pool shares and are reported at amortized cost which approximates market. All investments in an external investment pool that are not SEC registered are subject to oversight by the Commonwealth. The Authority can withdraw funds from INVEST without limitations or fees.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair market value of the Authority's investments.

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. As of December 31, 2024 and 2023, the Authority's investment in the state investment pool (INVEST) was rated AAA by Standard & Poor's. 100% of the Authority's investments in U.S. government agencies and money market funds are rated AAA by Standard & Poor's and Moody's.

Concentration of Credit Risk – Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investments in a single issuer. As of December 31, 2024 and 2023, the Authority did not have a high concentration of investments in any one issuer.

Pension Trust Funds

The pension trust funds are used to account for assets held by the Authority in a trustee capacity for future payment of retirement benefits to employees or former employees.

The pension trust funds' investments in money markets, equity, and fixed-income funds, and guaranteed interest accounts are not exposed to custodial credit risk because they are not evidenced by securities that exist in physical or book-entry form. Investments in common stock are not subject to the disclosure requirements of GASB Statement No. 40.

The following is a description of the pension trust funds' investment risks:

Credit risk. The risk that an issuer or other counterparty to an investment will not fulfill its obligations is called credit risk. As of December 31, 2024 and 2023, the pension trust funds' investments in fixed income investments for the Management Plan and Union Plan were rated as follows:

Fiduciary Fund		
Bond ratings	2024 Market Value	2023 Market Value
Moody's Aaa	$ 47,655,566	$ 46,009,212
Moody's Aa1	416,543	428,182
Moody's Aa2	763,338	908,237
Moody's A1	4,375,898	4,232,388
Other	41,373,711	37,600,263
Total	$ 94,585,056	$ 89,178,282

The remaining mutual funds, stocks, common/collective trusts, and ETFs were not rated by nationally recognized statistical rating organizations.

Interest Rate Risk. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the pension trust funds' investments. The pension trust funds do not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The following table shows investment maturities in years for pension trust fund investments with maturities:

		Investment Maturities (In Years) from December 31, 2024				
Investment Type	Fair Value	Less than 1 Year	1-5 Years	6-10 Years	11-15 Years	16 or more Years
Corporate and utility bonds	$ 39,004,288	$ 797,860	$ 12,334,921	$ 15,615,377	$ 3,241,494	$ 7,014,636
US treasury and agency	42,031,694	325,084	21,149,485	6,210,602	106,678	14,239,845
Municipal	3,092,691	19,774	1,146,377	911,679	743,072	271,789
Mortgages & Asset Backed Securities	8,422,360	224	3,846,073	309,894	-	4,266,169
Foreign Bonds	2,034,023	-	778,440	868,050	71,794	315,739
Total securities with maturities	$ 94,585,056	$ 1,142,942	$ 39,255,296	$ 23,915,602	$ 4,163,038	$ 26,108,178

		Investment Maturities (In Years) from December 31, 2023				
Investment Type	Fair Value	Less than 1 Year	1-5 Years	6-10 Years	11-15 Years	16 or more Years
Corporate and utility bonds	$ 35,703,919	$ 992,924	$ 10,688,009	$ 14,815,624	$ 1,036,227	$ 8,171,135
US treasury and agency	41,354,039	982,425	20,636,190	5,713,153	107,699	13,914,572
Municipal	2,712,233	-	779,193	1,014,624	452,986	465,430
Mortgages & Asset Backed Securities	6,983,641	-	2,381,475	1,029,385	317,096	3,255,685
Foreign Bonds	2,424,450	568,150	586,964	893,122	75,491	300,723
Total securities with maturities	$ 89,178,282	$ 2,543,499	$ 35,071,831	$ 23,465,908	$ 1,989,499	$ 26,107,545

Financial instruments potentially expose the pension trust funds to various risks such as concentrations of credit risk and market risks. Concentration of credit risk for investments in marketable securities is mitigated by the overall diversification of managed investment portfolios. Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in values of investments will occur in the near term and that such change could materially affect the amount reported on the combined statement of fiduciary net position.

The composition of the pension trust funds is noted below, along with the fair value measurements as of December 31, 2024 and 2023, respectively:

Investments by Fair Value Level:	December 31, 2024	December 31, 2023
Fixed Income:		
US Treasury Bonds	$ 39,431,468	$ 38,016,196
US Agency Bonds	2,600,226	3,337,843
Asset Backed Securities	3,765,870	3,336,432
Corporate Bonds	36,330,114	33,277,632
Utility Bonds	2,674,174	2,426,287
Municipal Bonds	3,092,691	2,712,233
Foreign Bonds	2,034,023	2,424,450
Mortgages and mortgaged backed securities	4,656,490	3,647,209
ETFs - Fixed Income	1,456,504	1,491,827
Total Fixed Income	96,041,560	90,670,109
Equities:		
Mutual Funds	880,758	757,982
Common Stocks:		
Capital Goods	5,698,780	1,079,787
Industrials	5,104,310	8,451,193
Consumer Discretionary	9,546,960	8,437,091
Consumer Staples	5,386,382	5,450,638
Energy	5,314,804	5,431,462
Food, Bev, Tobacco, & Personal Products	2,855,929	6,014,603
Financials	18,392,288	12,551,864
Materials	4,414,835	3,008,305
Transportation	219,265	1,027,713
Retail	9,186,410	4,262,405
Pharm/Biotech	7,224,396	2,624,676
Insurance	3,615,783	4,035,375
Information Technology	28,572,184	9,683,980
Software & Services	10,942,063	11,202,270
Technology	10,188,667	18,729,292
Media	13,004,472	9,340,328
Real Estate	3,435,951	5,168,561
Utilities	2,537,457	3,324,358
Health Care	8,604,383	12,970,666
Telecommunications	6,585,793	4,784,457
ETFs - Growth	8,892,109	7,230,662
Total Equities	170,603,979	145,567,668
Total investments by fair value level	$ 266,645,539	$ 236,237,777

US Treasury bonds, asset backed securities, utility bonds, noncorporate bonds, mutual funds, preferred stock, common stock, and exchange traded funds are valued using quoted marked prices (Level 1 inputs). Corporate, municipal, and foreign bonds as well as mortgages are valued using a matrix pricing model (Level 2 inputs). The fair values of U.S. government agency securities are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are included in the Level 2 fair value hierarchy.

6. Capital Assets

A summary of capital assets is as follows for the years ended December 31, 2024 and 2023, respectively:

	Balance 1/1/2024	Additions	Disposals	Balance 12/31/2024
Nondepreciable assets:				
Land	$ 23,110,313	$ 2,927,977	$ -	$ 26,038,290
Construction in progress	299,726,893	152,793,680	(55,538,677)	396,981,896
Total nondepreciable assets	322,837,206	155,721,657	(55,538,677)	423,020,186
Depreciable assets:				
Land improvements	5,108,533	-	-	5,108,533
Buildings and improvements	534,754,427	27,223,767	(261,600)	561,716,594
Utility plant in service	288,372,421	901,771	-	289,274,192
Machinery and equipment	361,482,711	12,392,822	(254,378)	373,621,155
Clean Water Program	59,535,206	460,481	-	59,995,687
GROW Program	14,276,918	12,321,555	-	26,598,473
Total depreciable assets	1,263,530,216	53,300,396	(515,978)	1,316,314,634
Less: accumulated depreciation	609,832,580	23,214,779	(492,434)	632,554,925
Net depreciable assets	653,697,636	30,085,617	(23,544)	683,759,709
Total capital assets	$ 976,534,842	$ 185,807,274	$ (55,562,221)	$ 1,106,779,895

	Balance 1/1/2023	Additions	Disposals	Balance 12/31/2023
Nondepreciable assets:				
Land	$ 13,343,651	$ 9,766,662	$ -	$ 23,110,313
Construction in progress	197,768,039	168,895,327	(66,936,473)	299,726,893
Total nondepreciable assets	211,111,690	178,661,989	(66,936,473)	322,837,206
Depreciable assets:				
Land improvements	4,805,250	303,283	-	5,108,533
Buildings and improvements	505,594,415	29,410,276	(250,264)	534,754,427
Utility plant in service	282,853,554	5,518,867	-	288,372,421
Machinery and equipment	345,875,853	16,360,719	(753,861)	361,482,711
Clean Water Program	57,906,665	1,628,541	-	59,535,206
GROW Program	9,416,711	4,860,207	-	14,276,918
Total depreciable assets	1,206,452,448	58,081,893	(1,004,125)	1,263,530,216
Less: accumulated depreciation	588,968,864	21,820,966	(957,250)	609,832,580
Net depreciable assets	617,483,584	36,260,927	(46,875)	653,697,636
Total capital assets	$ 828,595,274	$ 214,922,916	$ (66,983,348)	$ 976,534,842

The Authority has spent $396,981,896 and $299,726,893 for construction in progress as of December 31, 2024 and 2023, respectively, with estimated remaining total expansion costs of approximately $3,456,052,605, which are anticipated to occur over the next five years. These costs are associated with improvements and plant expansion to allow the Authority to increase to maximum flows of 600 MGD. These expansion costs are primarily attributable to activities required by the Consent Decree further discussed in Note 10.

7. Pension Plans

General Information About the Pension Plans. The Authority has two single-employer defined benefit pension plans covering substantially all full-time employees: the Management Employees Plan (Management Plan) and the Union Employees Plan (Union Plan). The Union Plan is a contributory plan including all members of the utility workers' collective bargaining unit and the Management Plan is a contributory plan available to all Authority employees not participating in the Union Plan. The Authority's pension plans, the Management Employees Plan and Union Employees Plan (Plans), are governed by independent boards composed primarily of participants in the Plans, and the Authority does not directly participate in the management of the Plans.

Management and Union Plans - Summary of Significant Accounting Policies

Financial information is presented on the accrual basis of accounting. Employer contributions to the Plans are recognized when earned. Benefits and refunds are recognized when incurred, in accordance with the terms of each Plan.

Each Plan's assets are reported at fair value. Neither Plan had any investment transactions with related parties during the year.

Statements of Plan Net Position – Management and Union Plans

COMBINING STATEMENT OF PLAN NET POSITION
PENSION TRUST FUNDS

YEAR ENDED DECEMBER 31,

	Management 2024	Management 2023	Union 2024	Union 2023
Assets				
Dividends and interest receivable	$ 263,416	$ 229,996	$ 1,065,749	$ 651,332
Cash and cash equivalents	-	-	4,662,589	4,275,220
Investments at fair value:				
U.S. government securities	10,328,606	12,284,970	31,703,088	29,069,069
Corporate bonds	12,595,922	10,651,416	26,408,366	25,052,503
Equity securities	43,078,042	36,165,326	117,753,070	101,413,698
Municipal bonds	2,037,418	1,474,955	1,055,273	1,237,278
Foreign bonds	-	-	2,034,023	2,424,450
Mortgages	-	-	4,656,490	3,647,209
ETFs	10,348,613	8,722,489	-	-
Mutual funds	880,758	757,982	-	-
Asset backed securities	-	-	3,765,870	3,336,432
Total investments at fair value	79,269,359	70,057,138	187,376,180	166,180,639
Total Assets	$ 79,532,775	$ 70,287,134	$ 193,104,518	$ 171,107,191
Liabilities and Net Position				
Liabilities:				
Purchases pending settlement	$ -	$ -	$ 296,578	$ -
Total Liabilities	-	-	296,578	-
Net Position:				
Net position restricted for pension benefits	79,532,775	70,287,134	192,807,940	171,107,191
Total Liabilities and Net Position	$ 79,532,775	$ 70,287,134	$ 193,104,518	$ 171,107,191

Statements of Changes in Plan Net Position – Management and Union Plans

COMBINING STATEMENT OF CHANGES IN PLAN NET POSITION
PENSION TRUST FUNDS

YEAR ENDED DECEMBER 31,

	Management 2024	Management 2023	Union 2024	Union 2023
Additions:				
Contributions:				
Employer	$ 3,004,038	$ 3,153,454	$ 3,729,367	$ 4,424,637
Employee	424,261	359,557	308,760	263,863
Total contributions	3,428,299	3,513,011	4,038,127	4,688,500
Investment income:				
Net appreciation (depreciation) in fair value of investments	7,136,183	10,158,237	13,063,418	21,206,421
Realized gain (loss)	822,482	47,047	9,661,546	2,664,257
Interest and dividends	1,689,422	1,368,015	4,056,988	3,745,005
Total investment income	9,648,087	11,573,299	26,781,952	27,615,683
Other income	36,187	64,674	6,210	-
Total additions	13,112,573	15,150,984	30,826,289	32,304,183
Deductions:				
Benefits	3,629,490	3,517,774	9,005,239	8,427,977
Distribution expenses	188,186	164,048	-	-
Administrative expense	49,256	46,803	120,301	751,929
Total deductions	3,866,932	3,728,625	9,125,540	9,179,906
Change in Plan Net Position	9,245,641	11,422,359	21,700,749	23,124,277
Net Position:				
Beginning of year	70,287,134	58,864,775	171,107,191	147,982,914
End of year	$ 79,532,775	$ 70,287,134	$ 192,807,940	$ 171,107,191

Plan Benefits

Normal Retirement. Under each of the plans, employees' eligibility for normal benefits begins at age 65, at which time the individual is entitled to an annual retirement benefit, payable monthly for life. For the Management Plan, this benefit is equal to 2.5% of the first $4,200 of average compensation for each year of Credited Service, plus 2.5% of 3-year compensation in excess of $4,200 for each year of Contributory Service (for participant contributing at the rate of 3% of compensation) and 2.0% of 5-year average compensation in excess of $4,200 for each year of Contributory Service (for participant contributing at the rate of 1.25% of compensation in excess of $4,200). If a participant transfers from the Union Plan, the normal retirement benefit is based on all years of employment with the Authority and is offset by the Union Plan benefit. In addition, the portion of the benefit for those contributing 1.25% of compensation in excess of $4,200 will be determined using 2.50% of 3-year average compensation in excess of $4,200 for any Union years of Contributory Service. For the Union Plan, this benefit is equal to 2.5% of the first $4,200 of average compensation for each year of credited service plus 2.5% of average compensation in excess of $4,200 for each year of Contributory Service. The benefit above is limited to 100% of average compensation. For both plans, in no event will a participant's benefit exceed the limits set forth in Section 415(b) of the Internal Revenue Code.

Early Retirement. Early retirement is available to all participants who have reached the age of 55 and have at least 10 years of service for the Management plan, and 55 and have at least 15 years of service for the Union plan. For the Management Plan, a participant who is contributing 3% of compensation may retire at age 60 with 10 years of service with no early retirement reduction. If such participant elects to retire prior to age 60, benefits will be reduced by one-half of 1% for each month prior to age 60 in which retirement occurs. For a participant who elected to contribute 1.25% of compensation in excess of $4,200, the monthly benefit will be reduced by one-half of 1% for each month prior to Normal Retirement Date (that is, prior to age 65). For the Union Plan, If the participant has attained age 60 with 25 years of Credited Service and is actively employed immediately prior to retirement, the benefit is unreduced. Otherwise, the benefit is reduced actuarially if it commences prior to age 62 or by 5% per year if it commences between age 62 and Normal Retirement Date.

Late Retirement. In both plans, for those retiring after age 65, the benefit is the greater of (1) the actuarial equivalent of the benefit that would have been payable at the Normal Retirement Date and (2) the benefit based on service and earnings as of the actual retirement date.

Disability Retirement. For both plans, disability retirement is available upon evidence of total and permanent disability and after 10 years of Credit Service. The disability benefit is based on average compensation and service at the time of disability. The disability benefit is limited to the amount which, when added to worker's compensation, equals 100% of base pay. The disability benefit is payable immediately, with no reduction for commencement before Normal Retirement Date.

Termination Benefits. For both plans, a participant is fully vested in his accrued benefit after 15 years of Credited Service or upon attainment of Normal Retirement age. Partial vesting occurs after five years of Credited Service, in accordance with the following schedule:

Credited Service	Vested Percentage	Credited Service	Vested Percentage
Less than 5 years	0%	10 years	50%
5 years	25%	11 years	60%
6 years	30%	12 years	70%
7 years	35%	13 years	80%
8 years	40%	14 years	90%
9 years	45%	15 or more years	100%

The vested accrued benefit will be payable in full at Normal Retirement Date. Reduced payment can begin as early as age 55 if the participant had 15 years (Union Plan) or 10 years (Management Plan) of Credited Service upon termination of employment. For the Union Plan, the benefit reduction for early commencement is the same as the reduction described for Early Retirement. For the Management Plan, the benefit reduction for early commencement is one-half of 1% for each month prior to normal retirement date, and a participant who satisfies the eligibility requirements for Early Retirement upon termination of employment is deemed to be fully vested. Employee contribution balances are always 100% vested. A participant who terminates employment with less than five years of Credited Service will be entitled to the return of his contributions with interest. A participant who terminates employment with partial vesting may elect a return of his contributions with interest. Such participant will have a residual benefit equal to the vested percentage of his accrued benefit based on Credited Service only (that is, the portion of the benefit based on the first $4,200 of compensation). A participant who withdrew contributions upon termination of employment and who is reemployed by the Authority will have the opportunity to repay his withdrawn contributions, with interest, for the purpose of restoring previously earned Contributory Service.

Pre-Retirement Spouse's Benefit. Upon the death of an active participant before retirement but after five years of Credited Service, the surviving spouse will receive 100% of the accrued benefit, determined without regard to the participant's vested percentage. If the spouse is under age 50, the 100% is reduced by 0.5% for each year and a fraction under age 50. For deaths occurring prior to January 1, 2004 (Union Plan) or 2006 (Management Plan), the surviving spouse received 100% of the vested accrued benefit. Upon the death of a terminated vested participant prior to the commencement of any benefits, the beneficiary shall receive an amount equal to the participant's personal contributions, if any, plus interest at the rate of 3% per year.

Post-Retirement Medical Benefit Payment. For the Management Plan, when a retired participant who was contributing at the rate of 3% attains age 65, such retired participant will receive an additional monthly benefit equal to two times the Medicare Part B premium in effect at that time, payable for the remainder of the participant's life.

Post-Retirement Lump Sum Death Benefit. For the Management Plan, participants retiring under either the Normal or Early Retirement provisions who were contributing at the rate of 3% will be eligible for a post-retirement death benefit of $2,000. Such benefit will be paid to the designated beneficiary.

Employees Covered by Benefit Terms. As of the most recent actuarial valuations, the following employees were covered by the benefit terms:

	Management	Union	Total
Inactive plan members or beneficiaries currently receiving benefits	93	217	310
Inactive plan members entitled to but not yet receiving benefits	26	33	59
Active plan members	143	285	428
Total plan members	262	535	797

Contributions. Participants in the Management Plan contribute 3.0% and participants in the Union Plan contribute 1.25% of earnings to their respective plans. The Authority's contributions to the plans are based on actuarially determined rates.

Net Pension Liability (Asset). The Authority's net pension liability (asset) for 2024 and 2023 was measured as of December 31, 2023 and 2022, respectively. The total pension liability used to calculate the net pension liability (asset) was determined by actuarial valuations as of those respective measurement dates.

Actuarial Assumptions. The total pension liability in the January 1, 2024 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Investment rate of return	7.00%
Underlying inflation rate	2.20%
Salary projection	4.00%

The total pension liability in the January 1, 2023 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Investment rate of return	7.00%
Underlying inflation rate	2.90%
Salary projection	4.00%

For both plans - Base mortality tables are applied to participant categories as follows:

- Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table

- Non-disabled participants in payment status: PubG-2010(A) Retiree Table

- Disabled participants: PubNS-2010 Disabled Retiree Table

- Surviving beneficiaries: Pub-2010(A) Contingent Survivor Table

For the January 1, 2024 and 2023 valuations, fully-generational mortality improvement for all participant categories is projected under Scale MP-2021. The MP scale is updated annually by the Society of Actuaries, except there was no update this year. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update is treated as an actuarial experience gain or loss, rather than as an assumption change.

Actuarial assumptions used in the respective valuations were based on actuarial experience studies for the period January 1, 2023 to December 31, 2023 and January 1, 2022 to December 31, 2022.

Long-Term Expected Rate of Return. The long-term expected rate of return on plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The following were the asset allocation policy and best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation:

	Management Plan		Union Plan	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
US equity	60.0%	5.20%	70.0%	5.20%
Fixed income	40.0%	2.60%	30.0%	2.60%
	100.0%		100.0%	

Rate of Return. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended December 31, 2024, the annual money-weighted rate of return on the Management and Union Plan investments was 19.9% and 19.0%, respectively.

Discount Rate. The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that the Authority's contributions will be made based on the actuarially determined contribution. Based on those assumptions, the fiduciary net position of each plan was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Concentrations – The Management Plan and the Union Plan did not have investments in a single issuer that exceeded 5% of the respective plan's fiduciary net position at December 31, 2024 and 2023.

Changes in Net Pension Liability (Asset). Changes in the Authority's net pension liability (asset) are as follows:

	Management Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/23	$ 70,691,579	$ 58,864,775	$ 11,826,804
Changes for the year:			
Service cost	2,285,341	-	2,285,341
Interest	4,797,324	-	4,797,324
Differences between expected and actual experience	380,738	-	380,738
Employer contributions	-	3,153,454	(3,153,454)
Member contributions	-	359,557	(359,557)
Net investment income	-	11,427,122	(11,427,122)
Benefit payments, including refunds of employee contributions	(3,517,774)	(3,517,774)	-
Balances at 12/31/24	$ 74,637,208	$ 70,287,134	$ 4,350,074
Plan fiduciary net position as a percentage of total pension liability			94.17%

Net investment income includes $210,851 of trustee and other investment related expenses.

	Management Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/22	$ 67,474,804	$ 71,780,485	$ (4,305,681)
Changes for the year:			
Service cost	2,084,530	-	2,084,530
Interest	4,586,051	-	4,586,051
Differences between expected and actual experience	(467,033)	-	(467,033)
Employer contributions	-	2,855,385	(2,855,385)
Member contributions	-	331,736	(331,736)
Net investment income	-	(13,116,058)	13,116,058
Benefit payments, including refunds of employee contributions	(2,986,773)	(2,986,773)	-
Balances at 12/31/23	$ 70,691,579	$ 58,864,775	$ 11,826,804
Plan fiduciary net position as a percentage of total pension liability			83.27%

Net investment income includes $215,294 of trustee and other investment related expenses.

	Union Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/23	$ 165,697,243	$ 147,982,914	$ 17,714,329
Changes for the year:			
Service cost	4,093,781	-	4,093,781
Interest	11,152,746	-	11,152,746
Differences between expected and actual experience	(259,752)	-	(259,752)
Employer contributions	-	4,424,637	(4,424,637)
Member contributions	-	263,863	(263,863)
Net investment income	-	26,863,754	(26,863,754)
Benefit payments, including refunds of employee contributions	(8,427,977)	(8,427,977)	-
Balances at 12/31/24	$ 172,256,041	$ 171,107,191	$ 1,148,850
Plan fiduciary net position as a percentage of the total pension liability			99.33%

Net investment income includes $751,929 of trustee and other investment related expenses.

	Union Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/22	$ 159,213,689	$ 179,049,273	$ (19,835,584)
Changes for the year:			
Service cost	3,935,339	-	3,935,339
Interest	10,730,897	-	10,730,897
Differences between expected and actual experience	(479,109)	-	(479,109)
Changes of benefit terms	-	-	-
Changes of assumptions	-	-	-
Employer contributions	-	4,280,472	(4,280,472)
Member contributions	-	260,817	(260,817)
Net investment income	-	(27,904,075)	27,904,075
Benefit payments, including refunds of employee contributions	(7,703,573)	(7,703,573)	-
Balances at 12/31/23	$ 165,697,243	$ 147,982,914	$ 17,714,329
Plan fiduciary net position as a percentage of the total pension liability			89.31%

Net investment income includes $239,982 of trustee and other investment related expenses.

Pennsylvania Act 205 (Act 205) is the authority by which benefit provisions are established and may be amended. Stand-alone financial reports were not issued for either of the Plans, as they are not required under the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974.

Changes in Actuarial Assumptions. The following actuarial assumptions were modified from 2023 to 2024:

- The long-term inflation rate decreased from 2.90% to 2.20%.

Changes in Actuarial Assumptions. The following actuarial assumptions were modified from 2022 to 2023:

- The long-term inflation rate increased from 2.50% to 2.90%
- The assumed rate of increase to the Medicare Part B Premium has been updated

Sensitivity of the Net Pension Liability (Asset) to Changes in Discount Rate. The following presents the net pension liability (asset) of the Authority, calculated using the discount rate of 6.75%, as well as what the Authority's net pension liability (asset) would be if it were calculated using a discount rate that is 1% lower (5.75%) or 1% higher (7.75%) than the current rate:

	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
Management	$ 13,768,730	$ 4,350,074	$ (3,569,676)
Union	23,118,806	1,148,850	(17,271,333)
	$ 36,887,536	$ 5,498,924	$ (20,841,009)

Pension Expense and Deferred Inflows/Outflows of Resources Related to Pensions. For the years ended December 31, 2024 and 2023, the Authority recognized pension expense of $5,040,111 and $10,120,733, respectively. At December 31, 2024 and 2023, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2024	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 689,391	$ 3,027,915
Changes of assumptions	4,534,118	-
Net difference between projected and actual earnings on pension plan investments	34,692,667	30,859,371
Contributions made subsequent to the measurement date	6,733,405	-
	$ 46,649,581	$ 33,887,286

	2023	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 572,935	$ 3,694,477
Changes of assumptions	6,572,139	-
Net difference between projected and actual earnings on pension plan investments	46,256,888	22,174,367
Contributions made subsequent to the measurement date	7,578,091	-
	$ 60,980,053	$ 25,868,844

Deferred outflows of resources related to Authority pension contributions subsequent to the measurement date of $6,733,405 and $7,578,091 will be recognized as a reduction of the net pension liability in the years ending December 31, 2025 and 2024, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ending December 31,	Deferred Outflows	Deferred Inflows
2025	$ 13,448,988	$ 12,565,456
2026	13,139,614	10,245,042
2027	12,469,013	5,481,913
2028	655,010	5,266,909
2029	163,775	210,914
2030	39,776	87,460
2031	-	29,592
	$ 39,916,176	$ 33,887,286

8. Postemployment Benefits Other Than Pensions

General Information About the OPEB Plans. In addition to the pension benefits described in Note 7, the Authority provides certain post-retirement healthcare benefits to management and union retirees until age 65, which is a defined benefit, single-employer plan administered by the Authority. No assets are accumulated in a trust that meets the criteria of paragraph 4 of GASB Statement 75. This plan does not issue stand-alone financial statements.

In accordance with the Authority's Policy and Procedures Manual for Management Employees, certain healthcare benefits and life insurance are provided to all management employees, and their dependents, who retire on or after attaining age 55 with at least ten years of credited service. These benefits cease when the retiree turns 65.

Additionally, in accordance with the current labor agreement between the Authority and the Utility Workers Union of America AFL-CIO Local 433, certain healthcare benefits are provided to all union employees and their dependents who retire at age 60 through age 65 with 25 years of credited service. In addition to the healthcare benefits, the Authority provides full hospitalization for retirees and their dependents between the ages of 62 and 65 with 15 to 24 years of credited service and 25% of the life insurance coverage that was provided while employed with the Authority will be carried into retirement.

In addition to these post-retirement healthcare benefits, the Authority also provides to both management and union retirees, the Vision Program, the Prescription Drug Program, and the Dental Program. For these programs, however, the retiree shall be responsible to pay the entire prevailing premium being paid by the Authority for its employees. Usually, these premiums are taken directly out of the retirees' pension payments.

Employees Covered by Benefit Terms. As of the most recent actuarial valuation, the following employees were covered by the benefit terms:

Active employees	416
Retired employees with health coverage	26
Retired employees with life insurance only	163
Total active and inactive employees	605

Total OPEB Liability. The Authority's total OPEB liability for 2024 and 2023 was measured as of December 31, 2023 and 2022, respectively.

Actuarial Assumptions. The methods and assumptions are as follows:

- Discount rate, using Fidelity Fixed Income Market Data for Municipal GO AA Yield Curve at 20 years: 3.77%
- Actuarial cost method: Individual Entry Age Normal Level Percent of Pay
- Salary increase: 4.0% annually

Mortality rate – Base mortality tables are applied to participant categories as follows:

- Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table
- Non-disabled participants in payment status: PubG-2010(A) Retiree Table
- Disabled participants: PubG-2010 Disabled Retiree Table

For the January 1, 2023 valuation, fully-generational mortality improvement for all participant categories is projected under Scale MP-2021. The MP scale is usually updated annually by the Society of Actuaries, except no update was issued for 2022. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update will be treated as an actuarial experience gain or loss, rather than as an assumption change. In the January 1, 2021 valuation, the MP-2020 scale was used. In the GASB 75 Information as of the December 31, 2021 measurement date, the MP- 2021 Scale was employed.

- Short- and long-term medical and prescription drug trend assumptions used to project healthcare costs and drug coverage premiums were revised. The short-term trend was revised to consider more recent data. The long term trend, beginning in 2028, was revised using an updated Society of Actuaries (SOA) Long Term Healthcare Cost Trends Model.

- Historical trend rates, which are needed for normal cost allocation under Entry Age method:

Year	Medical and Drug Trend	Year	Medical and Drug Trend
2021	6.10%	1995	5.30%
2019	6.50%	1990	8.80%
2017	5.60%	1985	8.70%
2015	7.90%	1980	10.80%
2010	7.30%	1975	15.80%
2005	10.40%	1970	13.40%
2000	10.90%	1965	11.10%

The Retirement assumption was selected based upon a study of plan experience for the period 2009 to 2019. The assumption will be monitored against actual plan experience to ensure that it remains reasonable.

Changes in Actuarial Assumptions. The following actuarial assumptions were modified from 2023 to 2024:

- The discount rate changed from 4.05% to 3.77% as of December 31, 2023.

Changes in Actuarial Assumptions. The following actuarial assumptions were modified from 2022 to 2023:

- The discount rate changed from 1.84 % to 4.05% as of December 31, 2022.
- Medical and drug trend assumptions used to project expected annual costs and coverage premiums were revised to recognize more recent data and combined into one trend assumption now that the group of those retiring before October 1, 2018 with special drug coverage cost-sharing will not exist in the future.
- The percentage of eligible active employees electing coverage at retirement was reduced from 100% to 85% to reflect experience from 2015 to 2022.

Changes in the Total OPEB Liability. The changes in the total OPEB liability of the Authority for the year ended December 31, 2024 were as follows:

	Total OPEB Liability	
	2024	2023
Balance at January 1	$ 11,203,983	$ 14,817,512
Changes for the year:		
Service cost	636,732	1,075,877
Interest	461,119	284,655
Differences between expected and actual experience	-	(1,416,114)
Changes of benefit terms	(87,331)	-
Changes of assumptions	233,347	(2,711,921)
Benefits paid	(910,145)	(846,026)
Balance at December 31	$ 11,537,705	$ 11,203,983

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate. The following represents the total OPEB liability calculated using the stated discount rate, as well as what the total OPEB liability would be if it was calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

1% Decrease (2.77%)	Current Discount Rate (3.77%)	1% Increase (4.77%)
$ 12,434,796	$ 11,537,705	$ 10,736,548

Sensitivity of the Total OPEB Liability to Changes in the Medical Trend Rate. The following presents the total OPEB liability calculated using the stated medical trend assumption, as well as what the total OPEB liability would be if it was calculated using a medical trend rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

	1% Decrease	Current	1% Increase
Initial rate	5.75%	6.75%	7.75%
Ultimate rate	3.00%	4.00%	5.00%
	$ 10,719,497	$ 11,537,705	$ 12,501,793

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEBs. For the years ended December 31, 2024 and 2023, the Authority recognized OPEB expense of $340,966 and $667,643, respectively. Cash payments into the plan are included in fringe benefits on the statement of revenues, expenses, and changes in net position and any remaining excess (deficiency) is reported as OPEB expense, net.

	December 31, 2024		December 31, 2023	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 3,468,867	$ -	$ 4,077,051
Changes in assumptions or other inputs	1,351,336	2,276,168	1,362,053	2,581,602
Subtotal, to be recognized in future OPEB expense	1,351,336	5,745,035	1,362,053	6,658,653
Employer payments for OPEB subsequent to measurement date and before fiscal year-end (expected claims)	1,021,401	-	910,145	-
Total	$ 2,372,737	$ 5,745,035	$ 2,272,198	$ 6,658,653

The deferred inflows and outflows related to OPEBs at December 31, 2024 will be recognized in OPEB expense as follows:

Year Ending December 31	Deferred Outflows	Deferred Inflows
2025	$ 244,064	$ 913,618
2026	244,064	913,618
2027	230,399	913,618
2028	198,506	913,618
2029	198,506	725,272
Thereafter	235,797	1,365,291
	$ 1,351,336	$ 5,745,035

9. Contingencies

The Authority is exposed to various risks of loss related to torts; alleged negligence; acts of discrimination; breach of contract; disagreements arising from the interpretation of laws or regulations; theft of, damage to and destruction of assets; errors and omissions; injuries to employees and natural disasters, for which the Authority carries commercial insurance. While some of these claims may be for substantial amounts, they are not unusual in the ordinary course of providing collection, transportation and treatment of wastewater services for applicable municipalities. The Authority does not participate in any public entity risk pool, and does not retain risk related to any aforementioned exposure except for those amounts incurred relative to policy deductibles, which are not significant. Additionally, the Authority has not significantly reduced any of its insurance coverage from prior years. Settled claims have not exceeded the Authority's commercial coverage in any of the past three years. Except as noted below, the Authority's management does not expect that the resolution of any outstanding claims and litigation will have a material adverse effect on the accompanying financial statements.

10. Environmental Permit Requirements

The Environmental Protection Agency's (EPA) Combined Sewer Overflow control policy is a national framework for controlling combined sewer overflows through the NPDES permitting program. The policy provides guidance on how communities and wastewater treatment plants such as the Authority and its customers with Combined Sewer Overflows can achieve Clean Water Act (CWA) goals in a flexible, cost-effective manner. The CSO Policy identifies the plan as a Long Term Wet Weather Control Plan, the name is adopted as Wet Weather Plan (WWP) to include both Combined Sewer Overflows and Sanitary Sewer Overflows.

The Authority has been implementing the requirements in their Consent Decree since it's entry in 2008. On January 29, 2013, the Authority submitted a Wet Weather Plan to the US EPA, PA DEP, and ACHD (Agencies) pursuant to the terms of the Consent Decree. The Wet Weather Plan contained a "Selected Plan" that the Authority identified as capable of achieving compliance with the requirements of the Consent Decree and the goals of the Clean Water Act, but costs prohibitive for its rate payers. The Wet Weather Plan also contained three alternatives, each with costs exceeding $2 billion. Following the January 2013 Wet Weather Plan submission, the Agencies worked cooperatively with the Authority in modifying the Consent Decree to allow the Authority to develop an adaptative schedule that would establish interim measures and final measures designed to reduce Combined Sewer Overflows discharges and eliminate Sanitary Sewer Overflows, in accordance with the requirements of the Consent Decree and the goals of the Clean Water Act, while keeping the cost of controls affordable for the Authority's rate payers. As a result of these discussions, the Authority submitted revised portions of the Wet Weather Plan to the Agencies on January 9, 2019, with the title "Clean Water Plan" (CWP). The Agencies approved portions of the Clean Water Plan on September 26, 2019, which become effective upon entry by the Court of Modified Consent Decree.

On October 2, 2019, the Modified Consent Decree was published in the Federal Register for a sixty (60) day public comment period. On May 12, 2020, the Modified Consent Decree was entered into Court and replaced the original Consent Decree entered in January 2008. The modified Consent Decree afforded a longer timetable, through the year 2036 and allows the Authority and our customer municipalities to use the best of evolving technology to meet the terms of the Modified Consent Decree.

On July 23, 2020, the Authority received a NPDES permit administrated by PADEP with EPA oversight for the authorization to discharge for the treatment plant expansion to 295 MGD with a 305 MGD CSO wet weather bypass. The Water Quality Management Permit for construction of the plant expansion was issued February 6, 2020 and was contingent upon the July 23, 2020 NPDES discharge permit approval. All of the discharge and construction permits were approved for wastewater treatment plant expansion and CSO related by-pass. The wet weather pump station permit was not submitted with the plant expansion. This permit was submitted in 2024 and has gone through technical comments with PA DEP.

The Clean Water Plan, as approved in the modified Consent Decree, includes provisions for significant capital improvements to the Authority's conveyance and treatment system, to capture and treat a defined flow from its customer municipalities, and to demonstrate compliance with applicable receiving stream water quality standards. These conveyance system improvements include three (3) sections of deep regional conveyance and storage tunnels, which are the Ohio River Tunnel, the Allegheny River Tunnel and the Monongahela River Tunnel. In addition to the tunnels there are associated structures and consolidated sewers. The final design for the Ohio River Tunnel is complete and under final review. In early 2024, the Authority submitted the required Federal, State and local permits for constructing the Ohio River Tunnel. Some permits have been issued, and a few are still under review. The Authority continues to seek and acquire land for tunnel launching and retrieval areas.

11. Clean Water Assistance Fund

In January 2017, the Authority created the Clean Water Assistance Fund to help families pay their sewage treatment bills. This program serves low-income residential customers in the 83 municipalities that the Authority serves. It is administered by Dollar Energy Fund. The Authority initially contributed approximately $1 million to establish this fund and periodically contributes additional funds as needed. In 2023, $208,000 in additional funding was contributed by the Authority. During 2024 and 2023, the fund paid approximately $184,000 and $183,000, respectively, to approved applicants. To date, the Clean Water Assistance Fund has helped over 9,200 customers.

12. Green Revitalization of Our Waterways

The Authority created the Green Revitalization of Our Waterways (GROW) program in June 2017. The GROW program allows for any municipality or municipal sewer authority within the Authority's service area to apply for grants that may be used to install green storm water reduction technology, remove streams from the sewer system, reduce the amount of water seeping in through groundwater, or to separate out storm sewers. As part of the grant agreement, awardees are required to operate and maintain the project for at least 20 years. As of December 31, 2024, 204 grants have been approved. Payments made as of the end of 2024 total $31,487,966, of which $26,598,472 is included in depreciable assets and the remainder is included in construction in progress. As of December 31, 2024, the Authority has committed to $38,492,720 in grants that will be drawn upon in future years.

13. Letter of Credit

On February 22, 2024, the Board authorized the Authority to enter into a reimbursement agreement with PNC Bank. The purpose of the reimbursement agreement is to provide the Authority with the ability to request the issuance of one or more letters of credit in an aggregate principal amount not to exceed $60 million. The letter(s) of credit will be used to secure work needed related to the Clean Water Plan. The first letter of credit pursuant to the reimbursement agreement was issued in an amount of $10 million with a term of three years.

14. Total Debt Service Schedule

	Series of 2015	Series of 2016	Series of 2018	Series of 2020	Series of 2022	Series of 2024	Combined Debt Service	Annual Debt Service
June 1, 2025	$ 2,735,150	$ 1,929,225	$ 3,958,353	$ 7,301,706	$ 11,628,628	$ 5,773,731	$ 33,326,793	
December 1, 2025	12,540,150	10,719,225	3,507,354	2,772,906	7,026,378	9,353,732	45,919,745	$ 79,246,538
June 1, 2026	2,509,203	1,709,475	7,317,353	16,547,907	11,746,378	5,684,231	45,514,547	
December 1, 2026	4,649,203	1,854,475	3,412,103	2,428,531	6,908,378	12,189,232	31,441,922	76,956,469
June 1, 2027	2,478,441	1,706,575	7,417,103	7,123,531	11,873,378	5,521,606	36,120,634	
December 1, 2027	13,263,441	2,181,575	3,311,978	2,311,156	6,784,253	12,771,608	40,624,011	76,744,645
June 1, 2028	2,208,816	1,697,075	7,521,978	7,246,156	12,004,253	5,340,356	36,018,634	
December 1, 2028	13,528,816	2,192,075	3,206,728	2,187,781	6,653,753	11,405,356	39,174,509	75,193,143
June 1, 2029	1,962,666	1,687,175	7,631,728	7,372,781	12,138,753	5,188,731	35,981,834	
December 1, 2029	13,777,666	2,202,175	3,096,103	2,058,156	6,516,628	10,963,730	38,614,458	74,596,292
June 1, 2030	1,667,291	1,676,875	7,746,103	7,513,156	12,286,628	5,044,356	35,934,409	
December 1, 2030	14,072,291	2,206,875	2,979,853	1,921,778	6,372,378	8,644,356	36,197,531	72,131,940
June 1, 2031	1,357,166	1,666,275	7,824,853	5,671,781	12,437,378	4,954,356	33,911,809	
December 1, 2031	3,952,166	12,651,275	2,901,122	1,828,031	6,220,753	10,314,356	37,867,703	71,779,512
June 1, 2032	1,313,375	1,446,575	7,951,122	5,768,031	12,595,753	4,820,357	33,895,213	
December 1, 2032	3,993,375	12,876,575	2,774,872	1,729,533	6,061,378	10,445,357	37,881,090	71,776,303
June 1, 2033	1,246,375	1,217,975	8,039,872	5,854,531	13,761,378	4,679,732	34,799,863	
December 1, 2033	4,061,375	13,107,975	2,686,025	1,638,431	5,868,878	9,639,732	37,002,416	71,802,279
June 1, 2034	1,176,000	980,175	8,151,025	5,918,431	13,913,878	4,555,732	34,695,241	
December 1, 2034	4,131,000	13,340,175	2,576,725	1,577,631	5,667,753	9,685,731	36,979,015	71,674,256
June 1, 2035	1,102,125	732,975	8,266,725	5,982,631	13,072,753	4,427,481	33,584,690	
December 1, 2035	4,207,125	13,587,975	2,462,925	1,513,297	5,482,628	9,337,481	36,591,431	70,176,121
June 1, 2036	1,024,500	475,875	8,382,925	6,058,297	13,267,628	4,304,731	33,513,956	
December 1, 2036	4,284,500	13,840,875	2,344,525	1,446,724	5,288,003	7,934,731	35,139,358	68,653,314
June 1, 2037	943,000	208,575	8,509,525	6,131,725	13,473,003	4,213,981	33,479,809	
December 1, 2037	4,363,000	14,113,575	2,221,225	1,366,300	5,073,147	8,023,982	35,161,229	68,641,038
June 1, 2038	857,500	-	8,636,225	17,716,300	13,688,147	4,118,732	45,016,904	
December 1, 2038	4,447,500	-	2,092,925	1,110,500	4,857,875	9,648,732	22,157,532	67,174,436
June 1, 2039	767,750	-	8,802,925	17,980,500	13,937,875	3,980,482	45,469,532	
December 1, 2039	4,537,750	-	1,925,175	846,475	4,619,525	8,285,482	20,214,407	65,683,939
June 1, 2040	673,500	-	8,980,175	18,256,473	8,189,525	3,872,856	39,972,529	
December 1, 2040	4,633,500	-	1,748,800	573,900	4,525,813	11,397,856	22,879,869	62,852,398
June 1, 2041	574,500	-	9,163,800	2,953,900	8,025,813	3,684,731	24,402,744	
December 1, 2041	4,734,500	-	1,563,425	526,300	4,433,938	23,614,731	34,872,894	59,275,638
June 1, 2042	470,500	-	9,358,425	3,006,300	8,183,938	3,286,131	24,305,294	
December 1, 2042	4,835,500	-	1,368,550	476,698	4,347,219	21,886,131	32,914,098	57,219,392
June 1, 2043	361,375	-	9,563,550	3,056,700	12,537,219	2,821,132	28,339,976	
December 1, 2043	4,946,375	-	1,163,675	425,100	4,111,756	16,641,132	27,288,038	55,628,014
June 1, 2044	246,750	-	9,778,675	3,110,100	12,876,756	2,475,632	28,487,913	
December 1, 2044	5,061,750	-	948,300	371,400	3,859,763	14,975,632	25,216,845	53,704,758
June 1, 2045	126,375	-	11,228,300	3,166,400	13,224,763	2,225,631	29,971,469	
December 1, 2045	5,181,375	-	691,300	315,500	3,590,519	9,495,631	19,274,325	49,245,794
June 1, 2046	-	-	11,756,300	3,225,500	13,090,519	2,065,231	30,137,550	
December 1, 2046	-	-	470,000	257,300	3,317,394	11,655,231	15,699,925	45,837,475
June 1, 2047	-	-	11,985,000	3,282,300	13,317,394	1,858,431	30,443,125	
December 1, 2047	-	-	239,700	196,798	3,029,894	9,858,431	13,324,823	43,767,948
June 1, 2048	-	-	12,224,700	3,346,800	15,434,893	1,683,431	32,689,824	
December 1, 2048	-	-	-	133,800	2,673,250	7,038,432	9,845,482	42,535,306
June 1, 2049	-	-	-	3,413,800	15,893,250	1,561,332	20,868,382	
December 1, 2049	-	-	-	68,200	2,293,175	13,156,332	15,517,707	36,386,089
June 1, 2050	-	-	-	3,478,200	16,373,175	1,314,431	21,165,806	
December 1, 2050	-	-	-	-	1,888,375	11,654,431	13,542,806	34,708,612
June 1, 2051	-	-	-	-	16,888,375	1,059,919	17,948,294	
December 1, 2051	-	-	-	-	1,457,125	10,659,919	12,117,044	30,065,338
June 1, 2052	-	-	-	-	17,357,125	820,669	18,177,794	
December 1, 2052	-	-	-	-	1,000,000	10,900,669	11,900,669	30,078,463
June 1, 2053	-	-	-	-	41,000,000	571,519	41,571,519	
December 1, 2053	-	-	-	-	-	571,519	571,519	42,143,038
June 1, 2054	-	-	-	-	-	571,519	571,519	
December 1, 2054	-	-	-	-	-	12,146,518	12,146,518	12,718,037
June 1, 2055	-	-	-	-	-	291,534	291,534	
December 1, 2055	-	-	-	-	-	12,426,535	12,426,535	12,718,069
	$ 165,004,716	$ 132,009,650	$ 259,890,128	$ 210,566,163	$ 534,148,485	$ 449,495,452	$ 1,751,114,594	$ 1,751,114,594

REQUIRED SUPPLEMENTARY INFORMATION

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF CHANGES IN THE NET
PENSION LIABILITY (ASSET) AND RELATED RATIOS - MANAGEMENT

YEARS ENDED DECEMBER 31,
LAST TEN YEARS

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability:										
Service cost	$ 2,285,341	$ 2,084,530	$ 2,141,515	$ 1,909,209	$ 1,905,043	$ 1,826,493	$ 1,668,851	$ 1,420,751	$ 1,193,822	$ 1,012,344
Interest	4,797,324	4,586,051	4,308,955	4,097,579	3,919,747	3,650,643	3,420,033	3,135,922	2,864,194	2,597,036
Differences between expected and actual experience	380,738	(467,033)	539,363	(258,048)	(1,020,214)	832,893	(70,800)	816,498	1,043,646	163,825
Changes of benefit terms	-	-	-	-	-	-	-	228,011	-	-
Changes of assumptions	-	-	-	1,793,351	-	1,093,916	-	1,342,644	-	1,178,962
Benefit payments, including refunds of member contributions	(3,517,774)	(2,986,773)	(2,639,744)	(2,280,017)	(2,254,417)	(2,112,745)	(1,807,432)	(1,757,159)	(1,591,493)	(1,495,819)
Net Changes in Total Pension Liability	3,945,629	3,216,775	4,350,089	5,262,074	2,550,159	5,291,200	3,210,652	5,186,667	3,510,169	3,456,348
Total Pension Liability - Beginning	70,691,579	67,474,804	63,124,715	57,862,641	55,312,482	50,021,282	46,810,630	41,623,963	38,113,794	34,657,446
Total Pension Liability - Ending (a)	$ 74,637,208	$ 70,691,579	$ 67,474,804	$ 63,124,715	$ 57,862,641	$ 55,312,482	$ 50,021,282	$ 46,810,630	$ 41,623,963	$ 38,113,794
Plan Fiduciary Net Position:										
Plan member contributions	$ 359,557	$ 331,736	$ 315,252	$ 314,238	$ 303,018	$ 276,848	$ 266,378	$ 242,438	$ 215,651	$ 217,014
Employer actuarially recommended contributions	3,153,454	2,855,385	2,955,679	2,822,303	2,376,191	2,516,460	1,916,633	1,795,051	1,642,817	1,647,664
Net investment income (loss)	11,427,122	(13,116,058)	9,368,709	8,159,448	9,556,538	(1,796,686)	5,367,534	2,427,121	(64,985)	3,062,959
Benefit payments, including refunds of member contributions	(3,517,774)	(2,986,773)	(2,639,744)	(2,280,017)	(2,254,417)	(2,112,745)	(1,807,432)	(1,757,159)	(1,591,493)	(1,495,819)
Net Change in Plan Fiduciary Net Position	11,422,359	(12,915,710)	9,999,896	9,015,972	9,981,330	(1,116,123)	5,743,113	2,707,451	201,990	3,431,818
Plan Fiduciary Net Position - Beginning	58,864,775	71,780,485	61,780,589	52,764,617	42,783,287	43,899,410	38,156,297	35,448,846	35,246,856	31,815,038
Plan Fiduciary Net Position - Ending (b)	$ 70,287,134	$ 58,864,775	$ 71,780,485	$ 61,780,589	$ 52,764,617	$ 42,783,287	$ 43,899,410	$ 38,156,297	$ 35,448,846	$ 35,246,856
Net Pension Liability (Asset) - Ending (a-b)	$ 4,350,074	$ 11,826,804	$ (4,305,681)	$ 1,344,126	$ 5,098,024	$ 12,529,195	$ 6,121,872	$ 8,654,333	$ 6,175,117	$ 2,866,938
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	94.17%	83.27%	106.38%	97.87%	91.19%	77.35%	87.76%	81.51%	85.16%	92.48%
Covered Payroll	$ 12,198,981	$ 11,288,451	$ 11,647,992	$ 10,923,002	$ 10,732,570	$ 10,179,102	$ 9,342,295	$ 8,594,987	$ 7,340,502	$ 6,455,960
Net Pension Liability (Asset) as a Percentage of Covered Payroll	35.66%	104.77%	-36.97%	12.31%	47.50%	123.09%	65.53%	100.69%	84.12%	44.41%

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF CHANGES IN THE NET
PENSION LIABILITY (ASSET) AND RELATED RATIOS - UNION

YEARS ENDED DECEMBER 31,
LAST TEN YEARS

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability:										
Service cost	$ 4,093,781	$ 3,935,339	$ 3,899,353	$ 3,670,772	$ 3,355,451	$ 3,140,218	$ 2,944,731	$ 2,616,615	$ 2,476,956	$ 2,293,999
Interest	11,152,746	10,730,897	10,299,603	9,958,940	9,538,363	8,965,814	8,525,299	8,080,735	7,634,199	7,030,443
Differences between expected and actual experience	(259,752)	(479,109)	(476,652)	(1,173,412)	(1,450,770)	(1,116,208)	(238,155)	(179,689)	389,969	(415,816)
Changes of benefit terms	-	-	-	-	492,165	-	-	603,344	-	-
Changes of assumptions	-	-	-	4,384,772	-	6,285,011	-	3,411,383	-	3,319,486
Benefit payments, including refunds of member contributions	(8,427,977)	(7,703,573)	(6,973,040)	(6,494,076)	(5,944,707)	(5,526,297)	(5,052,414)	(4,763,085)	(4,509,841)	(4,067,193)
Net Changes in Total Pension Liability	6,558,798	6,483,554	6,749,264	10,346,996	5,990,502	11,748,538	6,179,461	9,769,303	5,991,283	8,160,919
Total Pension Liability - Beginning	165,697,243	159,213,689	152,464,425	142,117,429	136,126,927	124,378,389	118,198,928	108,429,625	102,438,342	94,277,423
Total Pension Liability - Ending (a)	$ 172,256,041	$ 165,697,243	$ 159,213,689	$ 152,464,425	$ 142,117,429	$ 136,126,927	$ 124,378,389	$ 118,198,928	$ 108,429,625	$ 102,438,342
Plan Fiduciary Net Position:										
Plan member contributions	$ 263,863	$ 260,817	$ 252,589	$ 249,945	$ 245,136	$ 230,428	$ 219,633	$ 205,330	$ 194,364	$ 179,401
Employer actuarially recommended contributions	4,424,637	4,280,472	4,019,816	3,838,941	3,252,204	3,085,110	3,059,402	3,307,866	3,170,502	3,124,830
Net investment income (loss)	26,863,754	(27,904,075)	27,605,217	16,601,350	22,424,524	(4,901,833)	18,425,789	7,341,987	(1,652,268)	12,699,402
Benefit payments, including refunds of member contributions	(8,427,977)	(7,703,573)	(6,973,040)	(6,494,076)	(5,944,707)	(5,526,297)	(5,052,414)	(4,763,085)	(4,509,841)	(4,067,193)
Net Change in Plan Fiduciary Net Position	23,124,277	(31,066,359)	24,904,582	14,196,160	19,977,157	(7,112,592)	16,652,410	6,092,098	(2,797,243)	11,936,440
Plan Fiduciary Net Position - Beginning	147,982,914	179,049,273	154,144,691	139,948,531	119,971,374	127,083,966	110,431,556	104,339,458	107,136,701	95,200,261
Plan Fiduciary Net Position - Ending (b)	$ 171,107,191	$ 147,982,914	$ 179,049,273	$ 154,144,691	$ 139,948,531	$ 119,971,374	$ 127,083,966	$ 110,431,556	$ 104,339,458	$ 107,136,701
Net Pension Liability (Asset) - Ending (a-b)	$ 1,148,850	$ 17,714,329	$ (19,835,584)	$ (1,680,266)	$ 2,168,898	$ 16,155,553	$ (2,705,577)	$ 7,767,372	$ 4,090,167	$ (4,698,359)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	99.33%	89.31%	112.46%	101.10%	98.47%	88.13%	102.18%	93.43%	96.23%	104.59%
Covered Payroll	$ 23,845,401	$ 22,973,672	$ 22,832,500	$ 22,793,758	$ 21,089,748	$ 20,346,885	$ 19,156,669	$ 18,107,692	$ 17,147,336	$ 16,613,080
Net Pension Liability (Asset) as a Percentage of Covered Payroll	4.82%	77.11%	-86.87%	-7.37%	10.28%	79.40%	-14.12%	42.90%	23.85%	-28.28%

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF AUTHORITY'S CONTRIBUTIONS

YEARS ENDED DECEMBER 31,

	2024	2023	2022	2021	2020
Actuarially determined contribution:					
Management	$ 3,004,038	$ 3,153,454	$ 2,855,385	$ 2,955,679	$ 2,822,303
Union	3,729,367	4,424,637	4,280,472	4,019,816	3,838,941
	6,733,405	7,578,091	7,135,857	6,975,495	6,661,244
Contributions in relation to the actuarially determined contribution:					
Management	3,004,038	3,153,454	2,855,385	2,955,679	2,822,303
Union	3,729,367	4,424,637	4,280,472	4,019,816	3,838,941
	6,733,405	7,578,091	7,135,857	6,975,495	6,661,244
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered payroll:					
Management	$ 13,112,890	$ 12,198,981	$ 11,288,451	$ 11,647,992	$ 10,923,002
Union	24,843,951	23,845,401	22,973,672	22,832,500	22,793,758
	$ 37,956,841	$ 36,044,382	$ 34,262,123	$ 34,480,492	$ 33,716,760
Contributions as a percentage of covered payroll	17.74%	21.02%	20.83%	20.23%	19.76%
Annual money-weighted rate of return, net of investment expense:					
Management	19.9%	-18.0%	15.4%	15.8%	22.8%
Union	19.0%	-15.6%	18.3%	12.3%	19.4%

	2019	2018	2017	2016	2015
Actuarially determined contribution:					
Management	$ 2,376,191	$ 2,516,461	$ 1,916,633	$ 1,795,051	$ 1,642,817
Union	3,252,204	3,085,109	3,059,402	3,307,866	3,170,502
	5,628,395	5,601,570	4,976,035	5,102,917	4,813,319
Contributions in relation to the actuarially determined contribution:					
Management	2,376,191	2,516,461	1,916,633	1,795,051	1,642,817
Union	3,252,204	3,085,109	3,059,402	3,307,866	3,170,502
	5,628,395	5,601,570	4,976,035	5,102,917	4,813,319
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered payroll:					
Management	$ 10,732,570	$ 10,179,102	$ 9,342,295	$ 8,594,987	$ 7,340,502
Union	21,089,748	20,346,885	19,156,669	18,107,692	17,147,336
	$ 31,822,318	$ 30,525,987	$ 28,498,964	$ 26,702,679	$ 24,487,838
Contributions as a percentage of covered payroll	17.69%	18.35%	17.46%	19.11%	19.66%
Annual money-weighted rate of return, net of investment expense:					
Management	-3.7%	14.5%	7.3%	0.2%	10.1%
Union	-3.7%	17.2%	7.4%	-1.3%	13.8%

Valuation date: Actuarial calculations are performed each year as of January 1. Contributions noted above are as of each pension plan's calendar year ending December 31 using actuarially determined contribution rates calculated as of January 1, one year prior to the end of the calendar year in which contributions are reported.

Methods and assumptions used to determine the contribution rates:

Actuarial cost method	Entry Age Normal - Union Plan Entry Age Normal - Management Plan	
Amortization method	Level-dollar monthly payments - Union Plan Level-dollar monthly payments - Management Plan	
Remaining amortization period	15 years	Management Plan
	N/A	Union Plan - Due to the funding status of the plan, all previously-established amortization bases have been eliminated.
Asset valuation method	Smoothed market value (without phase-in) - Union Plan Smoothed market value (with phase-in) - Management Plan	

Years ended December 31,	2024	2023	
Inflation	2.20%	2.90%	Union Plan
	2.20%	2.90%	Management Plan
Salary increases	4.00%	4.00%	Union Plan
	4.00%	4.00%	Management Plan
Investment rate of return	7.00%	7.00%	Union Plan
	7.00%	7.00%	Management Plan

Mortality - Union Plan

Base mortality tables are applied to participant categories as follows:

- Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table
- Non-disabled participants in payment status: PubG-2010(A) Retiree Table
- Disabled participants: PubNS-2010 Disabled Retiree Table
- Surviving beneficiaries: Pub-2010(A) Contingent Survivor Table

For the January 1, 2024 valuation, fully-generational mortality improvement for all participant categories is projected under Scale MP-2021. For the January 1, 2023 valuation, fully-generational mortality improvement for all participant categories was also projected under Scale MP-2021. The MP scale is updated annually by the Society of Actuaries, except there was no update this year. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update is treated as an actuarial experience gain or loss, rather than as an assumption change.

Mortality - Management Plan

Base mortality tables are applied to participant categories as follows:

- Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table
- Non-disabled participants in payment status: PubG-2010(A) Retiree Table
- Disabled participants: PubNS-2010 Disabled Retiree Table
- Surviving beneficiaries: Pub-2010(A) Contingent Survivor Table

For the January 1, 2024 valuation, fully-generational mortality improvement for all participant categories is projected under Scale MP-2021. The MP scale is usually updated annually by the Society of Actuaries, however there was no update in 2023 or 2024. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update is treated as an actuarial experience gain or loss, rather than as an assumption change.

Note: the mortality improvement assumptions were updated as of the December 31, 2006, 2010, 2012, 2014, 2015, 2016, 2019, 2020, 2021, and 2022 valuations.

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

YEAR ENDED DECEMBER 31,
LAST TEN YEARS*

	2024	2023	2022	2021	2020	2019
Total OPEB Liability:						
Service cost	$ 636,732	$ 1,075,877	$ 1,039,368	$ 957,087	$ 880,548	$ 976,634
Interest	461,119	284,655	294,279	395,674	533,331	463,583
Differences between expected and actual experience	-	(1,416,114)	(2,250)	(1,256,794)	(1,636,646)	(1,823,758)
Changes of benefit terms	(87,331)	-	-	-	1,669,049	-
Changes of assumptions	233,347	(2,711,921)	171,884	727,289	891,029	(289,943)
Benefit payments, including refunds of member contributions	(910,145)	(846,026)	(760,709)	(650,284)	(522,480)	(536,537)
Net Changes in Total OPEB Liability	333,722	(3,613,529)	742,572	172,972	1,814,831	(1,210,021)
Total OPEB Liability - Beginning	11,203,983	14,817,512	14,074,940	13,901,968	12,087,137	13,297,158
Total OPEB Liability - Ending (a)	$ 11,537,705	$ 11,203,983	$ 14,817,512	$ 14,074,940	$ 13,901,968	$ 12,087,137
Covered Payroll	$ 35,567,509	$ 34,262,123	$ 34,480,492	$ 33,716,760	$ 31,822,318	$ 30,525,987
Net OPEB Liability as a Percentage of Covered Payroll	32.44%	32.70%	42.97%	41.74%	43.69%	39.60%

* Until a full 10-year trend is compiled, the required information for the Plan is presented for as many years as are available.

NOTES TO REQUIRED SUPPLEMENTARY OPEB SCHEDULE

Valuation date: Actuarial calculations are performed biennually as of January 1.

Methods and assumptions used to determine Total OPEB Liability:

Actuarial cost method: Individual Entry Age Normal Level Percent of Pay

Years ended December 31,	2024	2023
Salary increases	4.00%	4.00%

Mortality: Base mortality tables are applied to participant categories as follows:

Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table

Non-disabled participants in payment status: PubG-2010(A) Retiree Table

Disabled participants: PubNS-2010 Disabled Retiree Table

For the January 1, 2023 valuation, fully-generational mortality improvement for all participant categories is projected under Scale MP-2021. The MP scale is usually updated annually by the Society of Actuaries, except no update was issued for 2022. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update will be treated as an actuarial experience gain or loss, rather than as an assumption change. In the January 1, 2021 valuation, the MP-2020 scale was used. In the GASB 75 Information as of the December 31, 2021 measurement date, the MP-2021 Scale was employed.

SUPPLEMENTARY INFORMATION

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF INVESTMENTS AND OTHER ASSETS

YEAR ENDED DECEMBER 31, 2024

	Cash and Cash Equivalents	Investments	Accrued Interest Receivable	Total
Current Account:				
Revenue Fund	$ 407,374,060	$ -	$ -	$ 407,374,060
Special Accounts:				
Capital Facilities Fund	68,786,358	-	-	68,786,358
Construction Fund 2022	89	-	-	89
Construction Fund 2024	38,803,107	121,198,730	-	160,001,837
	107,589,554	121,198,730	-	228,788,284
Debt Service Accounts:				
Debt Service Fund	465,321	-	-	465,321
Debt Service Reserve Fund - 2018	12,375,491	-	-	12,375,491
Debt Service Reserve Fund - 2020A	15,688,242	-	-	15,688,242
Debt Service Reserve Fund - 2020B	3,525,747	-	-	3,525,747
Debt Service Reserve Fund - 2022	23,318,701	-	-	23,318,701
Debt Service Reserve Fund - 2024	18,511,960	-	-	18,511,960
	73,885,462	-	-	73,885,462
Total	$ 588,849,076	$ 121,198,730	$ -	$ 636,627,665

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF INVESTMENTS AND OTHER ASSETS

YEAR ENDED DECEMBER 31, 2023

	Cash and Cash Equivalents	Investments	Accrued Interest Receivable	Total
Current Account:				
Revenue Fund	$ 382,535,262	$ -	$ -	$ 382,535,262
Special Accounts:				
Capital Facilities Fund	78,767,616	-	-	78,767,616
Construction Fund 2022	100,021,387	21,883,846	53,339	121,958,572
Construction Fund 2024	-	-	-	-
	178,789,003	21,883,846	53,339	200,726,188
Debt Service Accounts:				
Debt Service Fund	165,342	-	-	165,342
Debt Service Reserve Fund - 2018	-	-	-	-
Debt Service Reserve Fund - 2020A	-	-	-	-
Debt Service Reserve Fund - 2020B	-	-	-	-
Debt Service Reserve Fund - 2022	-	-	-	-
Debt Service Reserve Fund - 2024	-	-	-	-
	165,342	-	-	165,342
Total	$ 561,489,607	$ 21,883,846	$ 53,339	$ 583,426,792