Pittsburgh Water and Sewer Authority

Single Audit

2023

MaherDuessel

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PITTSBURGH WATER AND SEWER AUTHORITY

YEARS ENDED DECEMBER 31, 2023 AND 2022

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Independent Auditor's Report

Board of Directors
Pittsburgh Water and Sewer Authority

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the business-type activities of the Pittsburgh Water and Sewer Authority (Authority), a component unit of the City of Pittsburgh (City), Pennsylvania, as of and for the years ended December 31, 2023 and 2022, 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 financial position of the business-type activities of the Authority, as of December 31, 2023 and 2022, and the changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 opinion.

Change in Accounting Principle

As described in Note 2 to the financial statements, the Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 96, "*Subscription-Based Information Technology Arrangements*," which requires the recognition of certain subscription assets and liabilities based on the contract provisions. Our opinion is not modified with respect to this matter.

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 opinion. 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 and *Government 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 and *Government 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 an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The supplementary information listed in the table of contents and the schedule of expenditures of federal awards, as required by Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* are presented for purposes of additional analysis and are 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 audit 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated April 19, 2024 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

Maher Duessel

Pittsburgh, Pennsylvania
April 19, 2024

PITTSBURGH WATER AND SEWER AUTHORITY

2023 Financial Statements
Management's Discussion and Analysis

The Pittsburgh Water and Sewer Authority's (Authority) comparative 2023 and 2022 fiscal year financial statements enclosed have been conformed to meet the requirements of Governmental Accounting Standards Board (GASB) Statement No. 34, *"Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments."* The financial statements incorporate three basic statements: The Statements of Net Position, the Statements of Revenues, Expenses, and Changes in Net Position, and the Statements of Cash Flows.

This Management's Discussion and Analysis (MD&A) is based upon facts, decisions, and conditions known as of the date of the audit report. Please note that the historical information provided in the financial statements and MD&A reflects the results of past operations and is not necessarily indicative of results of future operations. Future operations will be affected by various factors, including, but not limited to, regulatory mandates, rate changes, weather, labor contracts, population changes, business environment and other matters, the nature and effect of which cannot now be determined.

Using This Financial Report – Overview of Reporting Changes

The Statements of Net Position present information about the resources which are available to the Authority and claims against these resources. Both assets and liabilities are classified in a format which segregates current from noncurrent. In addition, assets available for special purposes – labeled "restricted assets" - are segregated from those assets available for operations. The Authority's restricted assets represent money on deposit with the bond trustee to meet indenture, debt service, and construction program requirements. Liabilities have a similar classification segregating claims on restricted assets from claims on assets available for operations. The net position section of the Statements of Net Position classifies the total net position as net investment in capital assets, restricted, and unrestricted.

The Statements of Revenues, Expenses, and Changes in Net Position summarize operating and non-operating activity for the fiscal year and the resulting impact on the Authority's net position.

The Statements of Revenues, Expenses, and Changes in Net Position include wastewater treatment revenues and expenses for services provided by the Allegheny County Sanitary Authority (ALCOSAN). There are no outstanding bond issues associated directly or indirectly with wastewater treatment revenue streams.

The Statements of Cash Flows have been prepared using the direct method. The statements provide an analysis of the Authority's cash by operating, investing, and capital and related financing activities over the respective fiscal year.

Financial Highlights 2023 and 2022

In 2023, operating income decreased by 25.8% or $19.2 million to $55.3 million. The Authority realized an overall net gain of $19.2 million, a result of greater revenues than expenses.

Below are the 2023 financial highlights:

Total operating revenues in 2023 were up $11.6 million or 4.0% to $298.7 million when compared to 2022. Wastewater treatment revenues increased by $6.9 million, attributable to ALCOSAN's rate increase. Water, wastewater conveyance, and stormwater revenues increased $7.7 million from 2022, a result of PWSA's rate increase. Other operating income decreased by $3.1 million from 2022, attributable to a decrease in tap fee revenue, as these fees were eliminated in 2022 as a result of PWSA's last tariff filing.

Total net non-operating revenues (expenses) remained consistent decreasing by $0.3 million from 2022 to a net expense of $31.3 million in 2023 compared to a net expense of $31.6 million in 2022.

Total operating expenses increased in 2023 to $243.4 million compared to $212.7 million in 2022. Significant operating expenses included the following factors:

- Salary and employee benefit expenses were up $3.3 million or 8.8%. The increase is attributed to salary rate increases of 3% and increased employee headcount in 2023.

  A portion of Authority employees are represented by one of three labor unions. The Pittsburgh Joint Collective Bargaining Committee (PJCBC) represents blue-collar employees. The PJCBC Agreement is effective June 16, 2021 and shall remain in full force and effect until 12:00 midnight, December 31, 2024 and from year to year thereafter unless either party shall notify the other in writing on or before June 1, 2024, or June 1 of any succeeding year that it desires to modify the Agreement. The American Federation of State, County, and Municipal Employees (AFSCME) represents Local 2719 employees and Local 2037. The AFSCME 2037 Memorandum of Understanding representing our Foreman is effective November 22, 2021, and shall remain in full force and effect until 12:00 midnight, December 31, 2024, and from year to year thereafter unless either party shall notify the other in writing on or before June 1 of 2024 or June 1 of any succeeding year that it desires to modify the Memorandum. The AFSCME 2719 agreement representing blue- and white-collar employees is effective January 01, 2023, and shall remain in full force and effect until December 31, 2026, and from year to year thereafter unless either party shall notify the other in writing on or before June 1 of 2026, or June 1 of any succeeding year that it desires to modify the Agreement.

- Wastewater Treatment expense (paid to ALCOSAN) increased by $8.3 million to $90.1 million in 2023 from $81.8 million in 2022. This is attributable to ALCOSAN'S rate increase.

- Overall, non-salary and benefit direct operating costs increased from 2022 to 2023, in many cases resulting from increased costs due to inflation and supply chain issues. A breakdown by category is as follows:

  - Chemical expenses increased 49.1% or $2.7 million from 2022 to $8.2 million in 2023, attributable to pricing increases.
  - Equipment expenses increased 89.1% or $0.9 million from 2022 to $1.9 million in 2023, attributable to greater computer, furniture, machinery, lab equipment, and vehicle related purchases under capitalization thresholds than in the prior year.
  - Material expenses stayed consistent at $0.7 million in 2023 and 2022.
  - Operating Contract expenses increased by 9.0% or $1.2 million from 2022 to $14.7 million in 2023, attributable to more non-capital work in 2023 compared to 2022.
  - Repair and Maintenance expenses increased by 36.2% or $4.7 million from 2022 to $17.6 million in 2023, mainly attributable to increased surface restoration.
  - Miscellaneous Direct Operating expenses decreased by 44.5% or $0.2 million from 2022 to $0.2 million in 2023, attributable to less testing needed as more lead lines have been replaced.
  - Inventory expense increased by 26.0% or $0.5 million from 2022 to $2.4 million in 2023, attributable to more operations work being completed in 2023 compared to 2022.
  - Administrative Fee expenses decreased by 25.2% or $0.6 million from 2022 to $1.9 million in 2023, attributable to decreases in bank fees and permit fees. Bank fees decreased due to interest credits and permit fees decreased due to a combination of construction activity and active management of open permits.
  - Freight and Postage expenses increased by 14.5% or $0.07 million from 2022 to $0.6 million in 2023.
  - Lease and Rent expenses increased by 108.2%, or $0.7 million to $1.4 million in 2023, attributable to a change in accounting methodology with the implementation of GASB 87.
  - Professional Service expenses increased by 3.1% or $0.5 million from 2022 to $17.5 million in 2023, attributable to overall increased spending for legal services,

construction management, miscellaneous engineering services, and various other miscellaneous professional services.

  - Supply expenses decreased by 11.0% or $0.2 million from 2022 to $1.3 million in 2023, mainly attributable to the decreased fuel costs.
  - Travel and Training expenses decreased by 21.6% or $0.06 million from 2022 to $0.2 million in 2023, a function of overall travel activity.
  - Utility expenses increased by 3.9% or $0.3 million from 2022 to $7.1 million in 2023, mostly driven by increased electricity costs.
  - Miscellaneous Administrative expenses increased by 278.1% or $5.9 million from 2022 to $3.7 million in 2023, mainly attributable to bad debt expense. Various aged Accounts Receivable balances were adjusted in 2022, resulting in a lower reserve for uncollectible accounts. Normal activity resumed in 2023, including an increase in the reserve for uncollectible accounts to align with the increase in Accounts Receivable.

- Reimbursements for City of Pittsburgh services increased by 7.0% or $0.3 million to $4.1 million in 2023, a function of net changes for pension, payroll tax, and street sweeping costs. The expense of water provided by other entities, decreased by 4.7% or $0.01 million to $0.16 million in 2023 compared to $0.17 million in 2022.

Interest expense increased 6.2% or $2.5 million to $43.2 million in 2023 compared to $40.7 million in 2022. This change is attributable to increased bond and PENNVEST interest, ultimately a result of new borrowings to fund an expanding capital improvement program.

In 2023, the Authority expended $7.9 million replacing private lead lines.

In 2023, cash collections increased by $12.2 million, with $287.3 million collected from billings compared to $275.1 million in 2022, due to PWSA and ALCOSAN rate increases.

Other 2023 highlights include:

- Accounts Receivable for Billed Wastewater Treatment increased by $0.6 million from $2.7 million in 2022 to $3.3 million in 2023, attributable to ALCOSAN's rate increase.

- Total debt service coverage was 1.36 in 2023 and 1.45 in 2022. These coverage factors exceed the required coverages ratios required under the bond indenture.

- The Authority expended $131.1 million on capital projects and purchases in 2023; $2.5 million of the capital expenditures spent in 2023 were funded by operating funds, $8.7 million by DSIC revenues, $47.8 million by the revolving line of credit, $9.7 million by ARPA funding, $4.8 million by grants and cost shares, and $57.6 million were funded by PENNVEST loans.

- In April 2023, the Authority closed on a funding award from PENNVEST for the purpose of financing the 2023-2025 Catch Basin and Inlet Replacement Program. The funding offered to the Authority consists of a $46.1 million loan with a blended interest rate of 2.07%. The award will fund approximately 3,600 catch basin replacements.

- In June 2023, the Authority remarketed $146.1 million of the outstanding 2017C Bonds via a private placement purchase. The 2017C remarketing was sold at 70% of SOFR plus 80 basis points with a mandatory tender on September 1, 2028. The 2017C remarketing can be called at par on September 1, 2027. The outstanding basis swaps related to the 2017C bonds transitioned from LIBOR to SOFR based paying the Authority 70% of SOFR plus 8.014 basis points.

- In July 2023, the Authority closed on a funding award from PENNVEST for the purpose of financing the 2022 Small Diameter Water Main Replacement Program. The funding offered to the Authority consists of a $60.4 million loan with an interest rate of 1% and a $5.9 million grant.

The award will fund approximately 382 public and 477 private lead service line replacements along with 63,000 linear feet of small diameter mains.

- In July 2023, the Authority closed on a funding award from PENNVEST for the purpose of financing the 2023A Neighborhood Lead Service Line Replacement Program. The funding offered to the Authority consists of a $2.9 million loan with an interest rate of 1% and a $9.7 million grant. The award will fund the replacement of 600 public and 388 private lead service lines.

- In July 2023, the Authority issued $106.1 million (fixed rate) Series A First Lien Water and Sewer Revenue Bonds ("2023A Bonds"). The proceeds from the 2023A Bonds were used to pay down the drawdown, revolving line of credit used to finance capital projects.

- In July 2023, the Authority issued $144.5 million (fixed rate) Series B First Lien Water and Sewer Refunding Bonds ("2023B Bonds"). The proceeds from the 2023B Bonds were used to refund the Authority's outstanding Series 2013A and 2013B Bonds, a portion of the 2017C Bonds, and terminated a portion of the outstanding basis swaps related to the 2017C Bonds.

- The City of Pittsburgh is the largest of the 83 municipalities that convey sanitary and combined sewage to Allegheny County Sanitary Authority (ALCOSAN) for treatment. On January 29, 2004, the Pittsburgh Water and Sewer Authority and the City of Pittsburgh executed a Consent Order and Agreement (Order) regarding sanitary and combined sewer overflows within the City of Pittsburgh. The other signatories to the Order are the Pennsylvania Department of Environmental Protection (DEP) and the Allegheny County Health Department, which executed the Order on April 21, 2004. The Wet Weather Feasibility Study required by the Order was submitted on July 31, 2013. On January 21, 2016, the U.S. Environmental Protection Agency (EPA) issued a Clean Water Act Section 308 Information Request (308 Request) to the Authority. The Authority responded to the first portion of the 308 Request, the assessment and modeling of the sewer system, by the due date of March 31, 2016. The Authority responded to the second phase of the 308 Request by submitting a source reduction study to EPA on December 1, 2016, and by submitting project performance evaluations for certain green infrastructure (GI) demonstration projects on December 1, 2017. The Authority continues to implement neighborhood GI-based based stormwater abatement projects to mitigate Combined Sewer Overflows (CSOs). The 308 Request does not contain fines or penalties for past non-compliance but does require the Authority to submit information on an ongoing, rolling basis.

  The Authority has begun negotiations with EPA, the U.S. Department of Justice (DOJ), and DEP over the terms of a consent decree that will address the control of sanitary and combined sewer overflows (SSOs and CSOs) within the City of Pittsburgh. Such a decree will likely set out an enforceable framework for bringing the Authority's sanitary and combined sewer systems into compliance with applicable requirements of the federal Clean Water Act and Pennsylvania Clean Streams Law. See Note 13 – Consent Agreement for additional details.

CONDENSED FINANCIAL STATEMENTS

CONDENSED STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

	December 31,		Variance	
	2023	2022 (restated)	Dollars	%
Capital assets:				
Producing assets	$ 961,742	$ 901,685	$ 60,057	6.66%
Construction in progress	244,278	212,414	31,864	15.00%
Hedging derivative - interest rate swap	12,896	20,167	(7,271)	-36.05%
Restricted assets	30,659	26,312	4,347	16.52%
Current assets	115,085	122,826	(7,741)	-6.30%
Total Assets	**1,364,660**	**1,283,404**	**81,256**	6.33%
Deferred Outflows of Resources	63,130	76,206	(13,076)	-17.16%
Liabilities:				
Current liabilities	106,137	99,000	7,137	7.21%
Long-term liabilities	1,225,020	1,175,911	49,109	4.18%
Total Liabilities	1,331,157	1,274,911	56,246	4.41%
Deferred Inflows of Resources	12,896	20,167	(7,271)	-36.05%
Net Position:				
Net investment in capital assets	50,040	19,200	30,840	160.63%
Restricted	20,924	19,795	1,129	5.70%
Unrestricted	12,773	25,537	(12,764)	-49.98%
Total Net Position	**$ 83,737**	**$ 64,532**	**$ 19,205**	**29.76%**

CONDENSED STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
(Dollars expressed in thousands)

	Year Ended December 31,		Variance	
	2023	2022	Dollars	%
			Increase (Decrease)	
Operating revenues	$ 298,716	$ 287,166	$ 11,550	4.02%
Operating expenses:				
Direct operating	116,056	98,962	17,094	17.27%
Wastewater treatment	90,060	81,804	8,256	10.09%
Reimbursement for City of Pittsburgh services	4,073	3,805	268	7.04%
Expense of water provided by other entities	164	172	(8)	-4.65%
Depreciation	33,096	27,936	5,160	18.47%
Total Operating Expenses	**243,449**	**212,679**	**30,770**	**14.47%**
Operating income	55,267	74,487	(19,220)	-25.80%
Non-operating revenues (expenses):				
Federal and private grants	11,901	9,264	2,637	-28.47%
Interest revenue	1,890	348	1,542	443.10%
Interest expense and other	(45,127)	(41,223)	(3,904)	9.47%
Total Non-operating Revenues (Expenses)	(31,336)	(31,611)	275	-0.87%
Special item: private lead line replacement	(7,894)	(4,748)	(3,146)	66.26%
Donated property	3,168	876	2,292	261.64%
Net Income/(Loss)	$ 19,205	$ 39,004	$ (19,799)	-50.76%

Financial Condition 2023 and 2022

The Authority's financial condition in 2023 remained stable for a twenty-first consecutive year. Utility revenues increased to $207.5 million from $199.8 million. Total cash and cash equivalents stood at $68.0 million at year-end 2023. Investment interest rates remain near historic lows, impacting the return on reserves invested.

CONDENSED FINANCIAL STATEMENTS

CONDENSED STATEMENTS OF NET POSITION
(Dollars expressed in thousands)

	December 31,		Variance	
	2022 (restated)	2021	Dollars	%
Capital assets:				
Producing assets	$ 901,685	$ 861,249	$ 40,436	4.70%
Construction in progress	212,414	158,128	54,286	34.33%
Hedging derivative - interest rate swap	20,167	-	20,167	100.00%
Restricted assets	26,312	25,884	428	1.65%
Current assets	122,826	106,765	16,061	15.04%
Total Assets	**1,283,404**	**1,152,026**	**131,378**	11.40%
Deferred Outflows of Resources	76,206	106,109	(29,903)	-28.18%
Liabilities:				
Current liabilities	99,000	97,921	1,079	1.10%
Long-term liabilities	1,175,911	1,134,686	41,225	3.63%
Total Liabilities	1,274,911	1,232,607	42,304	3.43%
Deferred Inflows of Resources	20,167	-	20,167	0.00%
Net Position:				
Net investment in capital assets	19,200	(5,776)	24,976	-432.41%
Restricted	19,795	19,466	329	1.69%
Unrestricted	25,537	11,838	13,699	115.72%
Total Net Position	**$ 64,532**	**$ 25,528**	**$ 39,004**	**152.79%**

CONDENSED STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
(Dollars expressed in thousands)

	Year Ended December 31,		Variance	
	2022	2021 (restated)	Dollars	%
			Increase (Decrease)	
Operating revenues	$ 287,166	$ 269,121	$ 18,045	6.71%
Operating expenses:				
Direct operating	98,962	99,160	(198)	-0.20%
Wastewater treatment	81,804	76,802	5,002	6.51%
Reimbursement for City of Pittsburgh services	3,805	3,818	(13)	-0.34%
Expense of water provided by other entities	172	120	52	43.33%
Depreciation	27,936	24,386	3,550	14.56%
Total Operating Expenses	**212,679**	**204,286**	**8,393**	**4.11%**
Operating income	74,487	64,835	9,652	14.89%
Non-operating revenues (expenses):				
Federal and private grants	9,264	1,347	7,917	-587.75%
Interest revenue	348	24	324	1350.00%
Interest expense and other	(41,223)	(39,431)	(1,792)	4.54%
Total Non-operating Revenues (Expenses)	(31,611)	(38,060)	6,449	-16.94%
Special item: private lead line replacement	(4,748)	(3,088)	(1,660)	53.76%
Donated property	876	567	309	54.50%
Net Income/(Loss)	$ 39,004	$ 24,254	$ 14,750	60.81%

Requests for Information

This financial report is designed to provide a general overview of the Authority's finances for all those with an interest in its finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Chief Executive Officer, Penn Liberty Plaza I, 1200 Penn Ave., Pittsburgh, PA 15222.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2023 AND 2022

	2023	2022 (restated)
Assets		
Current assets:		
Cash and cash equivalents	$ 67,966	$ 83,695
Accounts receivable, net:		
Water:		
Billed	16,235	16,053
Unbilled	9,950	8,746
Total water	26,185	24,799
Wastewater treatment:		
Billed	3,325	2,706
Unbilled	4,144	3,880
Total wastewater treatment	7,469	6,586
Other receivables	8,683	3,297
Total accounts receivable, net	42,337	34,682
Prepaid expenses	2,080	1,804
Inventory	2,702	2,645
Total current assets	115,085	122,826
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	20,393	17,129
Investments	10,266	9,183
Total restricted assets	30,659	26,312
Hedging derivative - interest rate swap	12,896	20,167
Capital assets, not being depreciated	244,278	212,414
Capital assets, net of accumulated depreciation/amortization	961,742	901,685
Total noncurrent assets	1,249,575	1,160,578
Total Assets	1,364,660	1,283,404
Deferred Outflows of Resources		
Deferred charge on refunding	63,130	75,822
Accumulated decrease in fair value of hedging derivatives	-	384
Total Deferred Outflows of Resources	63,130	76,206

(Continued)

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

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2023 AND 2022
(Continued)

	2023	2022 (restated)
Liabilities		
Current liabilities:		
Bonds, loans, and leases/subscriptions payable	43,924	41,144
Accrued payroll and related obligations	1,024	1,024
Accounts payable wastewater treatment	22,418	20,135
Accounts payable and other accrued expenses	24,794	25,110
Accrued interest payable from restricted assets	13,977	11,587
Total current liabilities	106,137	99,000
Noncurrent liabilities:		
Unearned revenue	121	121
Accrued payroll and related obligations	274	609
Swap liability	-	384
Bonds, loans, and leases/subscriptions payable, net	1,224,625	1,174,797
Total noncurrent liabilities	1,225,020	1,175,911
Total Liabilities	1,331,157	1,274,911
Deferred Inflows of Resources		
Accumulated increase in fair value of hedging derivatives	12,896	20,167
Net Position		
Net investment in capital assets	50,040	19,200
Restricted	20,924	19,795
Unrestricted	12,773	25,537
Total Net Position	$ 83,737	$ 64,532

(Concluded)

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

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2023 AND 2022

	2023	2022
Operating Revenues:		
Residential, commercial, and industrial sales	$ 207,487	$ 199,761
Wastewater treatment	87,791	80,868
Other	3,438	6,537
Total operating revenues	298,716	287,166
Operating Expenses:		
Direct operating expenses	116,056	98,962
Wastewater treatment	90,060	81,804
Reimbursement for City of Pittsburgh indirect services	4,073	3,805
Expense of water provided by other entities	164	172
Depreciation and amortization	33,096	27,936
Total operating expenses	243,449	212,679
Operating Income	55,267	74,487
Non-operating Revenues (Expenses):		
Federal and private grants	11,901	9,264
Interest revenue	1,890	348
Interest and amortization	(43,210)	(40,687)
Bond issuance costs	(1,917)	(536)
Total non-operating revenues (expenses)	(31,336)	(31,611)
Net Income before Capital Contribution and Special Item	23,931	42,876
Capital Contribution:		
Donated property	3,168	876
Special Item:		
Private lead line replacement, net	(7,894)	(4,748)
Net Income (Loss)	19,205	39,004
Net Position:		
Beginning of year	64,532	25,528
End of year	$ 83,737	$ 64,532

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

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF CASH FLOWS

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2023 AND 2022

	2023	2022 (restated)
Cash Flows From Operating Activities:		
Cash received from customers	$ 287,083	$ 284,772
Cash paid to suppliers and employees and customer refunds	(113,314)	(104,754)
Cash paid to City of Pittsburgh for reimbursement of services	(4,073)	(3,805)
Cash paid to other water companies for subsidy of customers located in the City of Pittsburgh	(164)	(172)
Cash paid to ALCOSAN for wastewater treatment	(87,777)	(83,128)
Net cash provided by (used in) operating activities	81,755	92,913
Cash Flows From Investing Activities:		
Purchase of investment securities	(380,312)	(51,023)
Proceeds from sale and maturities of investment securities	377,339	50,591
Interest income	1,890	348
Net cash provided by (used in) investing activities	(1,083)	(84)
Cash Flows From Capital and Related Financing Activities:		
Purchase/construction of property, plant, and equipment	(118,616)	(118,468)
Grant proceeds	12,153	7,011
Private lead line replacements	(7,894)	(4,748)
Proceeds from issuance of bonds	276,065	45,536
Proceeds from revolving line of credit	72,432	80,920
Proceeds from Pennvest Loans	24,448	22,035
Payment to refunding bond escrow agent	(153,323)	-
Payment made for bond issuance costs	(1,917)	(536)
Principal payments on debt	(36,172)	(33,403)
Principal payments on revolving line of credit	(110,000)	(45,000)
Principal payments on financed purchase	(519)	(502)
SWAP termination payment	(10,772)	-
Principal payments on lease	(681)	(446)
Principal payments on SBITA	(1,592)	(346)
SWAP receipts	5,273	1,920
SWAP payments	(6,263)	(8,349)
Interest paid on borrowings	(35,759)	(30,836)
Net cash provided by (used in) capital and related financing activities	(93,137)	(85,212)
Increase (Decrease) in Cash and Cash Equivalents	(12,465)	7,617
Cash and Cash Equivalents:		
Beginning of year	100,824	93,207
End of year	$ 88,359	$ 100,824
Consists of:		
Restricted cash and cash equivalents	$ 20,393	$ 17,129
Unrestricted cash and cash equivalents	67,966	83,695
	$ 88,359	$ 100,824
Reconciliation of Operating Income to Net Cash Provided by (Used in) Operating Activities:		
Operating income	$ 55,267	$ 74,487
Adjustments to reconcile operating income to net cash provided by (used in) operating activities:		
Depreciation and amortization	33,096	27,936
Reserve for uncollectible amounts	3,726	(3,467)
Change in:		
Accounts receivable - water and wastewater	(5,995)	(1,905)
Other accounts receivable	(5,638)	(489)
Prepaid expenses	(276)	(57)
Inventory	(57)	(617)
Accounts payable wastewater treatment	2,283	(1,324)
Accounts payable and other accrued expenses	(316)	(1,634)
Accrued payroll and related obligations	(335)	(17)
Net cash provided by (used in) operating activities	$ 81,755	$ 92,913
Schedule of Non-Cash Capital and Related Financing Activities:		
Donated property	$ 3,168	$ 876
Capital assets acquired through SBITA	$ 3,233	$ 3,660

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

1. Organization

The Pittsburgh Water and Sewer Authority (Authority) serves a population of 500,000 through its water, wastewater conveyance, and stormwater services. The Authority provides water to approximately 84% of the total population in the geographic boundaries of the City of Pittsburgh (City) and the entire Borough of Millvale. The Authority provides wastewater conveyance and stormwater services to the entire City.

A Board of Directors (Board), appointed by the Mayor of the City, and approved by City Council, governs the Authority.

The Authority is a body politic and corporate, organized, and existing under the Pennsylvania Municipality Authorities Act. The Authority was established by the City in 1984 to assume responsibility from the City for management, operation, maintenance, and improvement of virtually the entire City water supply, distribution, and wastewater collection systems (the "Water and Wastewater System" or "System"). The Authority's articles of incorporation were amended during 2020 to include stormwater systems and to extend the Authority's term of existence to 2070. The Authority is authorized to issue bonds and notes payable solely from the Authority's revenues.

Prior to April 1, 2018, the Authority had the right to establish user fees and charges without being subject to the approval of any department, board, or agency of Pennsylvania or the City. Effective April 1, 2018, the Public Utility Commission (PUC) began oversight of the Authority. PUC oversight requires compliance and conformity with their established regulations regarding administration, finances, operations, reporting, capital expenditures, and customer service for water and wastewater utilities. The PUC now approves all Authority rates and fees through tariff filings.

2. Summary of Significant Accounting Policies

<u>Reporting Entity</u>

These financial statements present the financial position, changes in net position, and cash flows of the Authority. The Authority is a component unit of the City in accordance with applicable guidance. The Authority's financial statements are not intended to present the financial position or results of operations of the City taken as a whole.

Basis of Accounting and Measurement Focus

The accompanying financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America, as prescribed by the Governmental Accounting Standards Board (GASB). Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

The Authority functions as a Business-Type Activity, as defined by GASB.

Classification of Net Position

The Authority's net position is classified into three components – net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are also included in this component of net position. If there are significant unspent related debt proceeds or deferred inflows of resources at the end of the reporting period, the portion of the debt or deferred inflows of resources attributable to the unspent amount is not included in the calculation of net investment in capital assets. Instead, that portion of the debt or deferred inflow of resources is included in the same net position component (restricted or unrestricted) as the unspent amount.

- Restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.

- Unrestricted – This component of net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted components of net position.

When an expense is incurred that can be paid using either restricted or unrestricted resources, the Authority's policy is to first apply the expense towards restricted resources and then towards unrestricted resources.

Deposits and Investments

The Authority's cash and cash equivalents are considered to be cash on hand, demand deposits, and all highly liquid investments, both restricted and unrestricted, with maturity of three months or less at date of purchase.

Investments are recorded at fair value. Accordingly, the change in fair value of investments is recognized as an increase or decrease to investment assets and investment income.

Fair Value Measurements

The Authority categorizes its fair value measurements within the fair value hierarchy established by accounting principles generally accepted in the United States of America. 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.

Premiums and Discounts

Original issue bond premiums and discounts are amortized over the life of the related bonds using the straight-line method of amortization, which is materially comparable to the effective interest method. The unamortized balance of premiums and discounts is presented net on the statements of net position as a decrease or increase to bonds payable.

Deferred Charge on Refunding

In accordance with applicable guidance, the excess of the reacquisition price over the net carrying amount of refunded debt is recorded as a deferred outflow of resources on the statements of net position and amortized as a component of interest expense over the shorter of the term of the refunding issue or refunded bonds.

Capital Assets

Capital assets owned by the Authority are recorded at cost (except for the intangible right-to-use lease and subscription assets, the measurement of which is discussed in Leases and SBITAs, respectively, below). Depreciation/amortization of capital assets owned by the Authority is provided on the straight-line method based on the estimated useful lives of the various classes of assets. Utility assets have estimated useful lives ranging from 30 to 70 years. Non-utility assets have estimated useful lives ranging from five to 10 years, other than the right-to-use lease and subscription assets which correspond to the contract terms.

The Authority also receives donated property relating mostly to dedicated water and sewer lines. These assets are capitalized at acquisition value at the date of the donation and depreciated in accordance with the estimated useful lives noted above.

The water and sewer system represents assets leased from the City. Amortization is provided on the straight-line basis applying an estimated average remaining useful life from the inception of the lease.

Maintenance and repairs are charged to expense as incurred.

Leases

The Authority is a lessee for a noncancellable lease of office space. The Authority recognizes a lease liability and an intangible right-to-use lease asset (lease asset). The intangible right-to-use lease asset is considered a non-utility asset.

At the commencement of a lease, the Authority initially measures the lease liability at the present value of payments expected to be made during the lease term. Subsequently, the lease liability is reduced by the principal portion of lease payments made. The lease asset is initially measured as the initial amount of the lease liability, adjusted for lease payments made at or before the lease commencement date, plus certain initial direct costs. Subsequently, the lease asset is amortized on a straight-line basis over its useful life.

Key estimates and judgments related to leases include how the Authority determines (1) the discount rate it uses to discount the expected lease payments to present value, (2) lease term, and (3) lease payments.

- The Authority uses the interest rate charged by the lessor as the discount rate. When the interest rate charged by the lessor is not provided, the Authority generally uses its estimated incremental borrowing rate as the discount rate for leases.
- The lease term includes the noncancellable period of the lease. Lease payments included in the measurement of the lease liability are composed of fixed payments and purchase option price that the Authority is reasonably certain to exercise.

The Authority monitors changes in circumstances that would require a remeasurement of its lease and will remeasure the lease asset and liability if certain changes occur that are expected to significantly affect the amount of the lease liability.

Lease assets are reported with capital assets and lease liabilities are reported with bonds, loans, and leases payable on the statements of net position.

Subscription-Based Information Technology Arrangements (SBITAs)

A SBITA is defined as a contractual agreement that conveys control of the right to use another party's information technology (IT) software, alone or in combination with tangible capital assets (the underlying IT assets), as specified in the contract for a minimum contractual period of greater than one year, in an exchange or exchange-like transaction. The Authority uses various SBITA assets that it contracts through cloud computing arrangements, such as software as a service and platform as a service.

At the commencement of a new SBITA, the Authority initially measures the subscription liability at the present value of payments expected to be made during the subscription term. Subsequently, the subscription liability is reduced by the principal portion of subscription payments made. The Authority has no variable payments (fixed in substance or based on an index or rate), or termination penalties included within the subscription liability of any SBITAs. Variable payments based on future performance of a government, usage of the underlying IT assets, or number of user seats are not included in the measurement of the subscription liability and instead are recognized as outflows of resources in the period in which the obligation for those payments is incurred. The subscription asset is initially measured as the initial amount of the subscription liability, adjusted for subscription payments made at or before the subscription commencement date, plus capitalizable initial implementation costs. In the transition year of GASB Statement No. 96, governments are permitted, but not required, to include in the measurement of the subscription asset capitalizable outlays associated with the initial implementation stage and the operation and additional implementation incurred prior to the implementation of this Statement. The Authority has elected to exclude any initial capitalizable outlays incurred prior to January 1, 2022, in the measurement of the subscription assets at January 1, 2022. There are no subscription payments made at or before the SBITA commencement or initial implementation costs included in the initial subscription asset measured for any SBITAs. Subsequently, the subscription asset is amortized on a straight-line basis over the term of the SBITA.

Key estimates and judgments related to SBITAs include how the Authority determines (1) the discount rate it uses to discount the expected subscription payments to present value, (2) subscription term, and (3) subscription payments.

- The Authority uses an estimated incremental borrowing rate as the discount rate for SBITAs unless the interest rate charged by the provider is stated. The discount rate is used to determine the present value of subscription payments over the subscription term.
- The subscription term is the noncancellable period of the SBITA. This includes periods in which there is an option to extend or terminate the subscription if it is reasonably certain that the option will or will not be exercised.
- Subscription payments included in the measurement of the subscription liability are composed of fixed payments.

The Authority monitors changes in circumstances that would require a remeasurement of its SBITAs and will remeasure the subscription asset and liability if certain changes occur that are expected to significantly affect the amount of the subscription liability.

Subscription assets are reported with capital assets and subscription liabilities are reported with bonds, loans, and leases/subscriptions payable on the statements of net position.

Deferred Outflows/Inflows of Resources

In addition to assets, the statements of net position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net assets that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then.

In addition to liabilities, the statements of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflow of resources, represents an acquisition of net assets that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time.

Inventory

Inventory is stated at cost, on a moving average price basis.

Classification of Revenues

The Authority has classified its revenues as either operating or non-operating revenues according to the following criteria:

- Operating revenues – Operating revenues include activities that have the characteristics of exchange transactions, such as residential, commercial, and industrial sales and wastewater treatment.

- Non-operating revenues – Non-operating revenues include activities that have the characteristics of non-exchange transactions, such as grants, interest income and other revenue sources.

Compensated Absences

A liability for vacation, personal, and sick days is accrued when related benefits are attributable to services rendered and to the extent it is probable that the Authority will ultimately compensate employees.

Accounts Payable Wastewater Treatment

The Authority has adopted a methodology for recording estimated wastewater treatment accounts payable that assumes a uniform meter reading date for all customers in each cycle. The estimate is based on the portion of wastewater treatment invoices paid after year-end with usage estimated to have occurred during the previous fiscal year.

Special Item

The Authority has recorded a special item for private line lead replacements. In accordance with GASB Statement No. 34, a special item is defined as an expenditure within control of management and either unusual or infrequent in occurrence. The Authority has determined that private lead line replacements qualify as a special item. For the years ended December 31, 2023 and 2022, the Authority received approximately $3.1 million and $1.2 million, respectively, in federal grants for private lead line replacement that is recorded net of the special item expense.

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, deferred outflows of resources, liabilities, deferred inflows of resources, 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 may differ from those estimates.

Reclassification

Certain amounts presented in the prior year have been reclassified in order to be consistent with the current year’s presentation.

Adopted Pronouncements

The requirements of the following Governmental Accounting Standard Board (GASB) Statements were adopted for the financial statements:

GASB Statement No. 96, "*Subscription-Based Information Technology Arrangements,"* provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users and requires recognition of certain subscription assets and liabilities based on the contract provisions. As a result of this implementation, a right-to-use subscription asset and subscription liability have been reflected for the years ended December 31, 2023 and 2022. The effects of this adoption were not material to beginning net position balances and were adjusted solely through the statements of net position.

GASB Statement No. 94, *"Public-Private and Public-Public Partnerships and Availability Payment Arrangements,"* was also adopted for the year ended December 31, 2023. This statement had no significant impact on the Authority's financial statements for the year ended December 31, 2023.

Pending Pronouncements

GASB has issued statements that will become effective in future years including 100 (Accounting Changes and Error Corrections), 101 (Compensated Absences), and 102 (Certain Risk Disclosures). Management has not yet determined the impact of these statements on the financial statements.

3. Transactions with the City of Pittsburgh

During July 1995, the City and the Authority entered into a Capital Lease Agreement and a Cooperation Agreement (collectively referred to as the "Agreements"). The Cooperation Agreement was subsequently renegotiated by the Authority's Board of Directors and the City Mayor's Office as described below:

Cooperation Agreement

Under the terms of the original Cooperation Agreement, City Water Department employees became employees of the Authority. As a result, the Authority assumed various obligations from the City. The City and the Authority provided various services to each other in accordance with the Cooperation Agreement, and the Authority reimbursed the City for direct and indirect costs attributed by the City to the operation and maintenance of the System.

Under the original Cooperation Agreement, the Authority provided up to 600 million gallons of water annually for the City's use without charge. Also, the Authority assumed the City's obligation for the cost of subsidizing water service to residents of the City situated beyond the Authority's service area so that those water users pay charges that mirror the rates of the Authority.

On February 4, 2019, the Authority's Board issued a resolution that the existing Cooperation Agreement shall be terminated in accordance with the terms of the agreement, 90 days after the approval of the resolution. City and Authority officials collaborated on a new Cooperation Agreement to further implement efficiencies and improvements, including: requiring the Authority to reimburse the City for pension costs for Authority employees covered by the City's pension plans, allowing the City to charge the Authority the usual rates that other utilities pay for permit fees, and charging the City for water, stormwater, wastewater coveyance, and ALCOSAN usage, with a five-year phase-in starting in 2020 for water and wastewater charges only. The Board implemented the new Cooperation Agreement as of October 3, 2019. This agreement has been filed with the Pennsylvania Public Utility Commission (Commission) according to Title 66, § 507 of the Public Utility Code, and can be modified by order of the Commission. On July 23, 2020, Pennsylvania Act 70 (Act 70) was signed into law. Act 70 provides that the Cooperation Agreement shall have the force and effect of law until January 1, 2025, or an earlier termination date to which the City and the Authority mutually agree.

System Leases

The Capital Lease Agreement stipulates minimum lease payments of approximately $101 million, all of which were satisfied during the initial three years of the capital lease.

The Capital Lease Agreement has a term of thirty years and provides the Authority with the option to purchase the System for one dollar in 2025.

Pension

Most Authority employees participate in the City's Municipal Pension Fund Plan (Plan). Employees who became members of the Plan prior to January 1, 1988 are required to contribute 5% of pre-tax pay. Those joining thereafter are required to contribute 4%. The Plan is closed to full-time non-union employees hired after July 1, 2019, PJCBC employees hired after June 16, 2021, and AFSCME Local 2037 employees hired after November 22, 2022. AFSCME Local 2719 employees hired after January 1, 2023 have the option at the time of hire to enroll into the Plan or make an irrevocable election to opt out of the Plan and enroll in the Authority’s 401(a) defined contribution plan. The Authority's 2023 and 2022 payroll covered by the Plan was approximately $18,421 and $18,734, respectively. Employee contributions for approximately 300 active employees for the years 2023 and 2022 amounted to $718 and $733, respectively.

The City is responsible for the funding of the retirement benefits for the Plan. The extent of the Authority's participation in funding the Plan with respect to those former City employees whose membership continued upon becoming employees of the Authority, as well as new members, is determined by the Cooperation Agreement.

For the years ended December 31, 2023 and 2022, the City and the Authority determined upon a payment of approximately $4,457 and $4,416, respectively, for the Authority’s share of the City’s pension costs, prior to adjustment for the Authority’s portion of the state aid received by the City for pension costs. The Authority’s payment was calculated based on a percentage of its covered payroll to the total covered payroll, which approximates 15.3% and 16.4% for 2023 and 2022, respectively.

Normal retirement benefits are available upon attainment of age sixty and completion of twenty service years. Early retirement benefits are available upon attainment of age fifty and completion of eight service years. Early retirement benefits may be deferred until age sixty or may be obtained upon retirement at a reduced level. A member who terminates employment after attaining age forty and completing eight service years can sustain eligibility for benefits by continuing contributions through age fifty. A member who terminates employment after attaining fifteen service years, but has been a member since before January 1, 1975, can be vested by continuing contributions through age fifty.

Retirement benefits for employees who were members of the Plan are based upon a percentage of either three-year or four-year average pay, depending on date of hire, subject to certain specified minimum monthly benefit amounts. Special membership and benefit rules apply to those experiencing disability.

The "net pension liability" is an actuarial present value of credited projected benefits (a standardized measure for financial statement disclosure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future by the Plan as a result of members' service to date) less the pension plan's net position available for paying such benefits. The measure is intended to help users assess the Plan's funding status on a going concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems. The Plan has not reported or attributed measurements of assets or the net pension liability on the basis of the group of members who are Authority employees. The City's net pension liability at December 31, 2022 (the date of the most recent available information) is $240,434. As of December 31, 2023, the Authority and the City have not determined the ultimate amount to be paid (the Authority's proportion of the City's net position liability) by the Authority pending completion of an actuarial study and therefore, a net pension liability has not been recorded on the statement of net position. An actuarial study will be performed in the future. The Authority is estimating their proportion of the net pension liability to be between $20 and $30 million.

Additional information about the Plan and required supplementary information showing the Plan's progress in accumulating sufficient assets to pay benefits when due is presented in the City's Annual Comprehensive Financial Report.

4. Revenue and Accounts Receivable

Water

Water sales revenue, including wastewater conveyance and stormwater, is recognized as earned during the period when water is supplied to customers. Customers are billed on a monthly billing cycle by the Authority based on actual or estimated meter readings. The Authority recognizes unbilled accounts receivable for water service provided prior to year-end that are billed during the following year.

Water accounts receivable are presented net of a reserve for uncollectible amounts. This reserve, based on an analytical review of outstanding accounts and historical collection data, is recognized coincident with recognition of revenue. At December 31, 2023 and 2022, the reserve for uncollectible water accounts was approximately $20.11 million and $17.74 million, respectively. The Authority has rights to utilize collection agencies, service terminations, liens, and real property sales to protect its interests, limit further losses, and motivate payments from delinquent customers.

Wastewater Treatment

Although the Authority does not provide wastewater treatment, it assumed responsibility for certain wastewater treatment revenue and expenses beginning in 1996. Effective May 2004, the Authority began direct billing City residents for current and delinquent wastewater treatment charges and remitting to ALCOSAN the aggregate amount of service charges billed. Wastewater treatment activity and the related assets and liabilities appear on the statements of revenue, expenses and changes in net position and the statements of net position, respectively. The related estimated amount of unbilled accounts receivable at year-end has been recorded on the statement of net position. At December 31, 2023 and 2022, the reserve for uncollectible wastewater accounts was approximately $10.85 million and $9.56 million, respectively.

Bad Debt Recovery/Expense

For the years ended December 31, 2023 and 2022, the Authority recognized bad debt expense of $3,726 and bad debt recovery of $3,467, respectively, which are netted with direct operating expenses on the statements of revenues, expenses, and changes in net position.

PENNVEST

As of December 31, 2023, the Authority estimates that approximately $39 million in project eligible costs are in the process of being submitted to PENNVEST for reimbursement. These costs are being interim financed using cash and cash equivalents until the Authority receives the reimbursements from PENNVEST. The Authority anticipates that the reimbursements will be received in the following year.

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

5. Capital Assets

Capital assets consisted of the following at December 31, 2023 and 2022:

	Balance at January 1, 2023, as restated	Additions	Deletions/ Reclassification	Balance at December 31, 2023
Capital assets, not being depreciated/amortized:				
Construction in progress	$ 212,414	$ 121,784	$ (89,920)	$ 244,278
Capital assets, being depreciated/amortized:				
Utility assets	1,265,594	89,920	(4,188)	1,351,326
Non-utility assets	20,313	3,233	(135)	23,411
Total capital assets, being depreciated/amortized	1,285,907	93,153	(4,323)	1,374,737
Less accumulated depreciation/amortization	(384,222)	(33,096)	4,323	(412,995)
Total capital assets, being depreciated/amortized, net	901,685	60,057	-	961,742
Total capital assets	$ 1,114,099	$ 181,841	$ (89,920)	$ 1,206,020

	Balance at January 1, 2022	Additions, as restated	Deletions/ Reclassification	Balance at December 31, 2022, as restated
Capital assets, not being depreciated/amortized:				
Construction in progress	$ 158,128	$ 119,344	$ (65,058)	$ 212,414
Capital assets, being depreciated/amortized:				
Utility assets	1,200,536	65,058	-	1,265,594
Non-utility assets	17,118	3,314	(119)	20,313
Total capital assets, being depreciated/amortized	1,217,654	68,372	(119)	1,285,907
Less accumulated depreciation/amortization	(356,405)	(27,936)	119	(384,222)
Total capital assets, being depreciated/amortized, net	861,249	40,436	-	901,685
Total capital assets	$ 1,019,377	$ 159,780	$ (65,058)	$ 1,114,099

During 2023 and 2022, the Authority received donated utility assets of $3,168 and $876, respectively, related to various development projects.

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

6. Payroll and Related Obligations

Payroll and related obligations presented on the statements of net position are comprised of:

	Balance at December 31, 2022	Change	Balance at December 31, 2023	Current Portion
Compensated absences	$ 584	$ (317)	$ 267	$ 20
Workers' compensation	44	(17)	27	-
Payroll, withholdings, and taxes	1,005	(1)	1,004	1,004
	$ 1,633	$ (335)	$ 1,298	$ 1,024

	Balance at December 31, 2021	Change	Balance at December 31, 2022	Current Portion
Compensated absences	$ 613	$ (29)	$ 584	$ 19
Workers' compensation	128	(84)	44	-
Payroll, withholdings, and taxes	909	96	1,005	1,005
	$ 1,650	$ (17)	$ 1,633	$ 1,024

7. Defined Contribution Plan

During 2019, the Authority established a 401(a) profit-sharing plan available to all full-time employees and part-time employees with over 1,000 hours of service who do not participate in the City’s Plan. As part of its fiduciary role, the Authority has an obligation of due care in selecting the third-party administrator. The Authority does not control the assets of the 401(a) profit-sharing plan, and thus the plan is not considered a fiduciary fund of the Authority.

Benefit terms are established and amended by the Authority. Employees can make pre-tax or Roth contributions with the Authority offering a non-elective contribution equal to 4% of the employees earnings and a match rate up to 3%, for a total Authority contribution up to 7%. Employees become vested after three years. For the years ended December 31, 2023 and 2022, the Authority contributed $324 and $333, respectively, to the 401(a) profit-sharing plan. The 401(a) profit-sharing plan had 112 members at December 31, 2023 and 100 members at December 31, 2022.

8. Bonds, Loans, and Leases Payable

Series 1998

In March 1998, the Authority issued $36,440 Series B First Lien Revenue Bonds (“1998 Series B Bonds”), the proceeds of which are dedicated to a capital improvements program.

The 1998 Series B Bonds are capital appreciation bonds with an original issuance amount of $36,440. During 2017, $12,406 (par) of the 1998 Series B Bonds with an accreted value of $34,625 were refunded with the Series 2017 A bonds. The remaining 1998 Series B Bonds have maturity values ranging from $26,930 to $14,660 from 2027 to 2030. The bonds were issued to yield rates from 5.18% to 5.3%. The 1998 Series B Bonds accrue and compound interest on a semi-annual basis and are carried at cost plus accrued interest. Total maturity value of the 1998 Series B Bonds is $95,450.

Series 2013

During December 2013, the Authority issued $130,215 Series A First Lien Revenue Refunding Bonds ("2013 Series A Bonds"), the proceeds of which were used to defease through current refunding the entire balance of the Series 2003, Series 2007 B-1, and Series 2007 B-2 Bonds and pay certain amounts in respect of termination of certain interest rate swap agreement related to the Series 2007 B-1 and B-2 bonds; and the $86,695 Series B First Lien Revenue Bonds ("2013 Series B Bonds"), the proceeds of which were used to fund certain water and sewer system capital improvement projects. The Series 2013 A Bonds had interest rates ranging from 0.75% to 5.00% and mature in 2033; the Series 2013 B Bonds had interest rates ranging from 3.00% to 5.25% and mature in 2040.

The 2013 Bonds were issued at a bond premium of $14,828, which was being amortized as an adjustment to interest expense over the life of the bonds.

During 2017, $42,340 of Series 2013 B bonds outstanding were currently refunded with Series 2017 A bonds. During 2023, the remaining balance of the Series of 2013 A and B bonds were currently refunded with the Series 2023 B bonds.

Series 2017

During December 2017, the Authority issued $165,390 First Lien Revenue Refunding Bonds composed of Series A ($159,795) and Series B (taxable) ($5,595). The proceeds of the bonds were used to fund the costs of the refunding of all or a portion of the Authority's outstanding Series of 1998B, 2008A, 2008D-1, and 2013B water and sewer system revenue bonds.

The 2017 A and B Bonds were issued at a bond premium of $23,374, which is being amortized as an adjustment to interest expense over the life of the bonds. The 2017 B Bonds were paid off during 2018. The Series 2017 A Bonds have interest rates ranging from 3.00% to 5.00% and mature in 2032.

During December 2017, the Authority issued $218,805 Series C First Lien Revenue Refunding Bonds, the proceeds of which were used to fund the costs of refunding the Authority's outstanding Series 2008 B-1, B-2, and D-2 water and sewer system revenue bonds. At December 31, 2022, the Series 2017 C bonds bore interest at the SIFMA Index Rate. On July 3, 2023, as part of the Series 2023 bond refunding, the interest rate on the Series 2017 C bonds was converted to the Daily Simple SOFR Index times 70% plus an applicable spread of 0.80%, not to exceed the maximum rate during the period from July 3, 2023 to September 1, 2028. The Series 2017 C bonds mature in 2040.

During 2023, $72,747 of Series 2017 C bonds outstanding were currently refunded with Series 2023 B bonds.

Series 2019

During June 2019, the Authority issued $109,855 Series A First Lien Revenue Bonds, the proceeds of which were used to refund interim debt incurred by the Authority to fund costs of capital projects; and $104,290 Series B Subordinate Revenue Refunding Bonds, the proceeds of which were used to currently refund all of the Authority's outstanding Series of 2008 C-1 and C-2 bonds, including swap termination payments on interest rate swaps associated with the refunded bonds. The Series 2019 A Bonds have an interest rate of 5.00% and mature in 2044; the Series 2019 B Bonds have interest rates ranging from 4.00% to 5.00% and mature in 2035.

The 2019 A and B Bonds were issued at a bond premium of $45,090, which is being amortized as an adjustment to interest expense over the life of the bonds.

Series 2020

During December 2020, the Authority issued $890 Series A First Lien Revenue Bonds (Federally Taxable), the proceeds of which were used to remarket the 2017 C Bonds; and $91,520 Series B First Lien Revenue Bonds, the proceeds of which were used to refinance the capital revolving line of credit described below. The Series 2020 A Bonds had an interest rate of 0.70% and matured in 2022; the Series 2020 B Bonds have interest rates ranging from 3.00% to 5.00% and mature in 2050.

The 2020 B Bonds were issued at a bond premium of $16,665, which is being amortized as an adjustment to interest expense over the life of the bonds.

Series 2022

During November 2022, the Authority issued $44,550 Series A First Lien Revenue Bonds, the proceeds of which were used to pay down a portion of the outstanding principal amount under the capital revolving line of credit described below. The Series 2022 A Bonds have interest rates ranging from 5.00% to 5.25% and mature in 2052.

The 2022 A Bonds were issued at a bond premium of $986, which is being amortized as an adjustment to interest expense over the life of the bonds.

Series 2023

During July 2023, the Authority issued $106,075 Series A First Lien Revenue Bonds, the proceeds of which were used to pay down a portion of the outstanding principal amount under the capital revolving line of credit described below; and $144,530 Series B First Lien Revenue Refunding Bonds, the proceeds of which were used to currently refund all of the

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Authority's outstanding Series of 2013 A and B bonds and a portion of the Series of 2017 C bonds, including swap termination payments on interest rate swaps associated with the refunded 2017 C bonds. The refunding resulted in cash flow savings of $11 million and an economic gain of $3.7 million (net of $5 million funds on hand).

The Series 2023 A Bonds have an interest rate of 5.00% and mature in 2043; the Series 2023 B Bonds have an interest rate of 5.00% and mature in 2040.

The 2023 A and B Bonds were issued at a bond premium of $25,460, which is being amortized as an adjustment to interest expense over the life of the bonds.

Deferred Charge on Refunding

In conjunction with the debt refundings described above, the Authority has recorded a deferred charge on refunding, which is shown as a deferred outflow of resources on the statements of net position. The deferred charge on refunding at December 31, 2023 and 2022 is as follows:

	Balance at December 31, 2022	Addition/ (Reduction)	Amortization	Balance at December 31, 2023
Deferred charge on refunding	$ 75,822	$ (7,387)	$ 5,305	$ 63,130

	Balance at December 31, 2021	Addition/ (Reduction)	Amortization	Balance at December 31, 2022
Deferred charge on refunding	$ 84,644	$ -	$ 8,822	$ 75,822

In conjunction with the Series 2023 B Bonds, the difference between (1) the net carrying value of the swap borrowing and swap asset and (2) the cash paid to terminate the swap reduced the deferred refunding loss.

Capital Revolving Line of Credit – Direct Borrowing

In June 2020, the Authority obtained a $150,000 revolving line of credit to finance certain capital projects. The capital revolving line of credit is secured by the receipts and revenues of the Authority's water and sewer system on a subordinate basis. The Authority has until June 23, 2025 to request revolving advances on the line of credit, at which time the

Authority has the option to convert the unpaid principal balance to a term loan. The capital revolving line of credit contains a provision that in the event of default, the lender shall be under no further obligation to make loans to the Authority and the outstanding amount under this line of credit becomes immediately due. Each revolving advance bears interest per annum equal to the sum of the SIFMA Rate plus the applicable margin (the tax-exempt rate). At December 31, 2023 and 2022, the interest rate was 4.26% and 4.05%, respectively. At December 31, 2023 and 2022, the Authority had $94,144 and $131,712, respectively, in outstanding revolving advances.

State Loans – Direct Borrowing

The Authority has several loans outstanding from PENNVEST for various capital projects and water and sewer improvement projects, with carrying amounts of $142,958 and $126,197 at December 31, 2023 and 2022, respectively. Interest rates vary from 1.00% to 3.25%. The State Loans are secured by the project collateral related to each loan. In an event of default on the State Loans, the entire unpaid principal, plus accrued interest, plus all other amounts due and payable to PENNVEST shall at the option of PENNVEST become due and payable immediately upon request.

Federal Loans – Direct Borrowing

On May 16, 2023, the Authority closed on a $52,500 subordinate lien loan through the United Stated Environmental Protection Agency's Water Infrastructure Finance and Innovation Act (WIFIA) funding program for the purpose of financing a portion of the costs associated with replacing the clearwell at the Water Treatment Plant. The term of the loan will not exceed 35 years after substantial completion of the project and will have an interest rate fixed at the time of closing based upon the State and Local Government Series (SLGS) rate plus 0.01%. No draws were made on the loan during the year ended December 31, 2023.

Financed Purchase – Direct Borrowing

During 2015, the Authority entered into a financed purchase agreement for the acquisition of a utility asset valued at $7,445. The utility asset has a ten-year estimated useful life. Depreciation on the utility asset began in 2016, with accumulated depreciation totaling $5,959 and $5,214 for the years ended December 31, 2023 and 2022, respectively. This lease agreement qualifies as a financed purchase for accounting purposes and, therefore, has been recorded at the value of future minimum lease payments as of the inception date. At December 31, 2023 and 2022, the outstanding balance of the financed purchase was $3,463 and $3,982, respectively.

Swap Borrowing – Direct Borrowing

During December 2017, the Authority terminated the original 2008 Series B-1, B-2, and D swaps and reissued and restructured the swaps to bear interest based upon 70% of one-month LIBOR. Upon the phase out of LIBOR, the interest rate will be replaced by the Federal Funds Rate if not renegotiated prior to the phase out. At termination, those derivative instruments had an aggregate fair value of ($70,869), which is considered a swap borrowing from the counterparty. The swap borrowing is being amortized over the remaining life of the bonds. In conjunction with the Series 2023 B Bonds and the swap termination, the swap borrowing associated with the 2008 Series B-2 swap was considered repaid. At December 31, 2023 and 2022, the unamortized balance of the remaining swap borrowing is $35,965 and $55,974, respectively.

Lease

The Authority also leases office space. The lease, originally starting August 2007, was last amended in August 2018 for the period September 1, 2018 to July 31, 2027. The general terms of the lease require the lessor to provide for utilities, building repairs, maintenance, and real estate taxes. As of December 31, 2023 and 2022, the value of the lease liability was $2,879 and $3,560, respectively. The Authority is required to make monthly payments of $70. The lease has an interest rate of 5%, as estimated by management. The value of the right-to-use asset as of December 31, 2023 and 2022 was $6,059 and accumulated amortization as of December 31, 2023 and 2022 was $3,249 and $2,499, respectively.

Subscription Based Information Technology Arrangements (SBITA)

The Authority has SBITAs for various finance and engineering software. The subscriptions have various due dates ranging through 2027 and the interest rate estimated by management was 5%. The value of the right-of-use subscription asset, net of accumulated amortization as of December 31, 2023 and 2022 was $5,797 and $3,314, respectively.

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Bonds, state loans payable, revolving line of credit, leases, and swap borrowing consisted of the following at December 31, 2023 and 2022:

	Balance at December 31, 2022, as restated	Additions	Accretion	Reductions	Balance at December 31, 2023	Due Within One Year
Bonds, loans, and leases payable:						
Revenue bonds:						
1998 Series B	$ 70,012	$ -	$ 3,755	$ -	$ 73,767	$ -
2013 Series A	50,700	-	-	(50,700)	-	-
2013 Series B	38,760	-	-	(38,760)	-	-
2017 Series A	101,600	-	-	(15,225)	86,375	17,180
2017 Series C	218,805	-	-	(72,748)	146,057	-
2019 Series A	102,605	-	-	(2,665)	99,940	2,800
2019 Series B	104,290	-	-	-	104,290	-
2020 Series B	90,725	-	-	(1,710)	89,015	1,780
2022 Series A	44,550	-	-	-	44,550	-
2023 Series A	-	106,075	-	-	106,075	835
2023 Series B	-	144,530	-	-	144,530	7,050
	822,047	250,605	3,755	(181,808)	894,599	29,645
Direct borrowings:						
State loans (PENNVEST)	126,197	24,448	-	(7,687)	142,958	9,039
Revolving lines of credit	131,712	72,432	-	(110,000)	94,144	-
Swap borrowing	55,974	-	-	(20,009)	35,965	2,101
Financed purchase	3,982	-	-	(519)	3,463	538
Lease	3,560	-	-	(681)	2,879	716
SBITA	3,314	3,233	-	(1,592)	4,955	1,885
	1,146,786	350,718	3,755	(322,296)	1,178,963	43,924
Unamortized bond (discount) premium	69,155	25,471	-	(5,040)	89,586	-
Total bonds, loans, and leases payable, net	$ 1,215,941	$ 376,189	$ 3,755	$ (327,336)	$ 1,268,549	$ 43,924

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

	Balance at December 31, 2021	Additions, as restated	Accretion	Reductions	Balance at December 31, 2022, as restated	Due Within One Year
Bonds, loans, and leases payable:						
Revenue bonds:						
1998 Series B	$ 66,454	$ -	$ 3,558	$ -	$ 70,012	$ -
2013 Series A	59,230	-	-	(8,530)	50,700	8,885
2013 Series B	38,760	-	-	-	38,760	-
2017 Series A	115,960	-	-	(14,360)	101,600	15,225
2017 Series C	218,805	-	-	-	218,805	-
2019 Series A	105,145	-	-	(2,540)	102,605	2,665
2019 Series B	104,290	-	-	-	104,290	-
2020 Series A	890	-	-	(890)	-	-
2020 Series B	91,520	-	-	(795)	90,725	1,710
2022 Series A	-	44,550	-	-	44,550	-
	801,054	44,550	3,558	(27,115)	822,047	28,485
Direct borrowings:						
State loans (PENNVEST)	110,450	22,035	-	(6,288)	126,197	7,281
Revolving lines of credit	95,792	80,920	-	(45,000)	131,712	-
Swap borrowing	59,002	-	-	(3,028)	55,974	3,102
Financed purchase	4,484	-	-	(502)	3,982	520
Lease	4,006	-	-	(446)	3,560	681
SBITA	-	3,660	-	(346)	3,314	1,075
	1,074,788	151,165	3,558	(82,725)	1,146,786	41,144
Unamortized bond (discount) premium	75,489	998	-	(7,332)	69,155	-
Total bonds, loans, and leases payable, net	$ 1,150,277	$ 152,163	$ 3,558	$ (90,057)	$ 1,215,941	$ 41,144

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

Debt service payments on the Revenue Bonds at December 31, 2023 are as follows:

	Revenue Bonds		
	Principal	Interest	Total
2024	$ 29,645	$ 38,829	$ 68,474
2025	33,255	36,546	69,801
2026	36,110	34,901	71,011
2027	16,754	54,291	71,045
2028	17,059	53,981	71,040
2029-2033	171,802	181,563	353,365
2034-2038	253,455	98,454	351,909
2039-2043	166,583	43,391	209,974
2044-2048	64,410	19,686	84,096
2049-2053	50,905	5,908	56,813
	839,978	567,550	1,407,528
Accretion	54,621	(54,621)	-
Total	$ 894,599	$ 512,929	$ 1,407,528

Debt service payments of the State Loans at December 31, 2023 are as follows:

	State Loans		
	Principal	Interest	Total
2024	$ 9,039	$ 1,633	$ 10,672
2025	8,969	1,516	10,485
2026	9,012	1,399	10,411
2027	10,622	1,241	11,863
2028	12,273	1,112	13,385
2029-2033	45,354	3,691	49,045
2034-2038	32,445	1,537	33,982
2039-2043	12,897	347	13,244
2044-2045	2,347	15	2,362
	$ 142,958	$ 12,491	$ 155,449

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Repayment of the revolving line of credit will begin once the Authority has drawn all available advances from the line, but no later than June 2025.

Minimum payments of the financed purchase at December 31, 2023 are as follows:

	Direct Financing Lease		
	Principal	Interest	Total
2024	$ 538	$ 109	$ 647
2025	556	91	647
2026	575	72	647
2027	595	52	647
2028	616	31	647
2029	583	10	593
	$ 3,463	$ 365	$ 3,828

The future principal and interest lease payments as of December 31, 2023 are as follows:

	Lease		
	Principal	Interest	Total
2024	$ 716	$ 128	$ 844
2025	753	91	844
2026	791	53	844
2027	619	13	632
	$ 2,879	$ 285	$ 3,164

The future principal and interest SBITA payments as of December 31, 2023 are as follows:

	SBITA		
	Principal	Interest	Total
2024	$ 1,885	$ 193	$ 2,078
2025	1,739	101	1,840
2026	1,010	22	1,032
2027	321	8	329
	$ 4,955	$ 324	$ 5,279

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

Amortization on the swap borrowing is as follows:

Year Ending December 31,	Principal	Interest
2024	$ 2,101	$ 880
2025	2,153	828
2026	2,207	775
2027	2,262	720
2028	2,318	663
2029-2033	12,470	2,425
2034-2038	11,059	881
2039-2040	1,395	35
	$ 35,965	$ 7,207

Interest payments were calculated for the Variable Rate Bonds using the synthetic fixed rate interest rates as described in Note 9.

Interest and amortization expense for the years ended December 31 is as follows:

	2023	2022
Bond, loan and swap interest	$ 39,179	$ 35,626
Accretion	3,755	3,558
Amortization of deferred refunding loss, discounts and premiums	276	1,503
	$ 43,210	$ 40,687

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

In accordance with the provisions of the trust indentures for the 1998, 2013, 2017, 2019, 2020, 2022, and 2023 Bonds, the Authority has created a number of funds that are restricted for specific purposes. The complement of these restricted funds, collectively referred to on the statements of net position as "Restricted Assets," at December 31, 2023 and 2022 was:

	2023	2022
Debt service and reserve funds	$ 9,735	$ 6,517
Operating reserve account	20,284	19,178
Other funds	640	617
	$ 30,659	$ 26,312

Among the Authority's debt covenants is one which requires that rates charged by the Authority will be sufficient to satisfy a formula which is intended to ensure that the Authority will be able to satisfy debt service requirements. If the Authority fails to comply with the rate covenant, the Authority shall request a Qualified Independent Consultant (QPI) to submit a written report and recommendations with respect to increases in the Authority's rates, fees and other charges and improvements in the operations and the services rendered and the Authority's accounting and billing procedures necessary to bring the Authority into compliance. Any failure to meet the rate covenant will not result in an event of default if within 180 days after the tested year end, the Authority files the report of the QPI and the Authority revises its rates, fees and charges and alter its operations and services to conform to the report of the QPI to the extent permitted by law.

The trust indenture also requires that revenue collections be deposited into a Revenue Fund and disbursed therefrom as provided for in the trust indenture. This Revenue Fund constitutes the vast majority of unrestricted funds cash and cash equivalents. At December 31, 2023 and 2022, the Authority was in compliance with these covenants.

9. Interest Rate Swaps

Interest rate swaps disclosures (not in thousands) as of December 31, 2023 and 2022 are presented below.

Interest rate swaps at December 31, 2023:

Current Notional Amount	Effective Date	Maturity Date	Interest Rate Paid	Interest Rate Received	Counterparty Credit Rating	Underlying Bonds	
Hedging Derivatives, Cash Flow Hedges, Receive Variable - Pay Fixed, Interest Rate Swaps:							
$ 72,747,500	12/28/2017	9/1/2039	1.732%	70% 1mo LIBOR	A+	Series 2017 C	*
71,225,000	12/28/2017	9/1/2040	1.735%	70% 1mo LIBOR	A+	Series 2017 C	*

* - Represents a hybrid instrument comprised of an on-market swap and a borrowing. The information above reflects the on-market rate as of the date on which the swap was associated with the underlying bonds.

When LIBOR is no longer published, the interest rate will be replaced by the Federal Funds Rate if not renegotiated. One-week and two-month LIBOR ceased being published at the end of 2021, while overnight, 1-month, 3-month, 6-month, and 12-month maturities continue to be published through June 2023.

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

Interest Rate Swap – Fair Value Information:

Notional Amount	12/31/2021 Fair Value *		Change in Fair Value	12/31/2022 Fair Value *		Change in Fair Value	Swap Termination	12/31/2023 Fair Value *		Underlying Bonds
Hedging Derivatives, Cash Flow Hedges, Receive Variable - Pay Fixed, Interest Rate Swaps:										
$ 72,747,500	$ (6,804,176)	**	$ 13,348,925	$ 6,544,749	**	$ (442,873)	$ -	$ 6,101,876	**	Series 2017 C
72,747,500	(6,804,176)	**	13,348,925	6,544,749	**	1,149,882	(7,694,631)	-	**	Series 2017 C
71,225,000	(7,307,899)	**	14,384,957	7,077,058	**	(283,293)	-	6,793,765	**	Series 2017 C
Hedging Derivatives, Cash Flow Hedges, Receive Variable - Pay Variable, Interest Rate Swap (Overlay Swap):										
216,720,000	(548,614)		165,009	(383,605)	**	(379,395)	763,000	-	**	Series 2017 C
Total	$ (21,464,865)		$ 41,247,816	$ 19,782,951		$ 44,321	$ (6,931,631)	$ 12,895,641		

* The fair value is an estimated net present value of the expected cash flows calculated using relevant mid-market data inputs and based on the assumption of no unusual market conditions or forced liquidation.

** Reported as hedging derivative - interest rate swap and swap asset/liability on the Statement of Net Position.

Description of 2017 C Swaps

During fiscal year 2017, the Authority restructured three pay-fixed, receive-variable interest rate swap contracts. The original interest rate swaps were effective June 12, 2008. Beginning December 28, 2017, the Authority will make semi-annual interest payments on the 1st of each March and September through September 1, 2039 (two swaps); and, September 1, 2040 (for one swap), respectively. The Counterparties make monthly interest payments on the 1st of each calendar month, which begin February 2018 through September 1, 2039 for two of the swaps; and, September 1, 2040 for one swap.

The intention of the 2017 swaps restructuring is to effectively change the Authority's variable interest rate on the $216,720,000, Water and Sewer System First Lien Revenue Refunding Bonds Series C of 2017 with notional amounts of $71,225,000, $72,747,500, and $72,747,500 to fixed rates of 3.8255%, 3.770%, and 3.7835%, respectively.

The bonds will accrue interest at a weekly rate that is determined by a remarketing agent on each effective rate date. The interest rate on the bonds may not exceed 12%. Per the interest rate swap agreements, the Authority will receive 70% of one-month LIBOR.

The interest payments on the interest rate swaps are calculated based on notional amounts, all of which reduce beginning on September 2032, so that the notional amounts approximate the principal outstanding on the respective bonds. The interest rate swaps expire consistent with the final maturity of the respective bonds.

On November 12, 2020, the Authority entered into a new swap transaction (the “Overlay Swap”) associated with the 2017 Series C variable rate bonds (the “Bonds” or the “2017C Bonds”). The Overlay Swap’s purpose was to convert the cash flows of the Authority’s outstanding fixed payer swap portfolio from 70% one-month LIBOR to the Weekly SIFMA Index (plus a third payment leg that includes a fixed rate component of the Authority paying 0.118%) between the Overlay Swap’s effective date of December 1, 2020 and termination date of December 1, 2023. The notional amount of the Overlay Swap was $216,720,000 matching 100% of the aggregate notional amount of the Authority’s outstanding fixed payer swap portfolio. The Overlay Swap was entered into in alignment with the Authority’s successful remarketing of the Bonds on December 1, 2020 from a 70% one-month LIBOR mode into a Weekly SIFMA Index mode.

During 2023, one of the pay fixed, receive variable interest rate swaps and the overlay swap were terminated as part of the issuance of the Series 2023 B Bonds.

Accounting and Risk Disclosures

During the years ended December 31, 2023 and 2022, the Authority paid $6,263 and $8,349, respectively, fixed and received $5,273 and $1,920 respectively, variable related to their outstanding swap agreements.

As noted in the tables above, current period changes in fair value for the interest rate swaps that are accounted for as hedges are recorded on the statements of net position as an adjustment to hedging derivative – interest rate swap, deferred outflows or deferred inflows. Additionally, current period changes in fair value for the interest rate swap accounted for as an investment is recorded on the statements of revenues, expenses, and changes in net position as a component of investment income. The fair value of the outstanding interest rate swaps as of December 31, 2023 and 2022 are reported on the statements of net position as a swap asset and swap liability. The swaps are valued using significant other observable inputs (Level 2 inputs).

The Authority has the ability to early terminate the interest rate swaps and to cash settle the transaction on any business day by providing at least two business days' written notice to the counterparty. Evidence that the Authority has sufficient funds available to pay any amount payable to the counterparty must be provided at the time notice is given. At early termination, the Authority will be required to pay or receive a settlement amount which is comprised of the fair value of the terminated transaction(s) based on market quotations and any amounts accrued under the contract(s).

Through the use of derivative instruments such as interest rate swaps, the Authority is exposed to a variety of risks, including credit risk, interest rate risk, termination risk, basis risk, and rollover risk.

- Credit risk is the risk that a counterparty will not fulfill its obligations. The credit ratings by S&P Global Ratings, a nationally recognized statistical rating organization for the respective counterparty listed in the table above. If a counterparty failed to perform according to the terms of the interest rate swap agreement, there is some risk of loss to the Authority, up to the fair value of the swaps.

  The Authority currently does not enter into master netting arrangements with its counterparty. As such, each derivative instrument should be evaluated on an individual basis for credit risk. The Series 2017 C receivable variable, pay fixed derivative instruments were subject to credit risk, as they had a positive fair value.

  Concentration of credit risk: The Authority's net outstanding market value as of December 31, 2023 is $12,896 with one counterparty. The Authority's net outstanding market value as of December 31, 2022 is $13,622 with one counterparty and $6,161 with the second counterparty. Both counterparties operate in the same markets and could be similarly impacted by changes in economic or other conditions.

  It is the Authority's policy to require counterparty collateral posting provisions in its non-exchange traded derivative instruments. Their terms require collateral to be posted if the respective counterparty's credit rating falls below BBB- by S&P Global Ratings and the swap insurer becomes bankrupt. The amount of collateral to be posted is calculated based on derivatives in asset positions to the Authority. As of year-end, the counterparties had not and were not required to post collateral for these transactions.

- Termination risk is the risk that a derivative's unscheduled end will affect the Authority's asset/liability strategy or will present the Authority with potentially significant unscheduled termination payments to the counterparty. The counterparties to the interest rate swaps do not have the ability to voluntarily terminate the interest rate swap; however, the Authority is exposed to termination risk in the event that one or more of the counterparties default. The Authority has the ability to voluntarily terminate the swaps with prior written consent of the insurer by providing between 2 and 20 business days' notice to the counterparty. The Authority must demonstrate the ability to pay all amounts due to the counterparty on the termination date. During 2023, one of the pay fixed, receive variable interest rate swaps and the overlay swap were terminated as part of the issuance of the Series 2023 B Bonds.

- Interest rate risk is the risk that changes in interest rates will adversely affect the fair values of a government's financial instruments or cash flows. The interest rate swaps are highly sensitive to changes in interest rates; changes in the variable rate will have a material effect on the swap's fair value.

- Basis risk is the risk that arises when variable interest rates on a derivative and an associated bond or other interest-paying financial instrument are based on different indexes. Although expected to correlate, the relationships between different indexes vary and that variance could adversely affect the Authority's calculated payments, and as a result cost savings or synthetic interest rates may not be realized.

  The Authority is further subject to basis risk in the event that the underlying bonds become fixed-rate Bank Bonds or that the maturity of the underlying bonds is accelerated.

- Rollover risk is the risk that a derivative associated with the Authority's debt does not extend to the maturity of that debt. When the derivative terminates, the associated debt will no longer have the benefit of the derivative. The Authority is not exposed to rollover risk as the swap agreements terminate on the same day the last payment is due on the respective bonds.

Contingencies

All of the Authority's derivative instruments include provisions that require the Authority to post collateral in the event that the credit ratings of its credit support provider's senior long term, unsecured debt credit rating falls below BBB- by S&P Global Ratings and FSA, the swap insurer, becomes bankrupt. The collateral is to be posted in the form of cash, U.S. Treasuries, or other approved securities. As of year-end, the Authority was not required to post collateral for these transactions.

10. Deposits and Investments with Financial Institutions

The Authority is authorized to invest in: obligations of the U.S. Government and government-sponsored agencies and instrumentalities; fully insured or collateralized certificates of deposits; commercial paper of the highest rating; repurchase agreements collateralized by government obligations or securities; highly rated bank promissory notes or investment funds or trusts; and, as to trusteed assets, as otherwise permitted by the trust indenture as supplemented and amended in 2020. Throughout the years ended December 31, 2023 and 2022, the Authority invested its funds in such authorized investments. The Authority has a formal investment policy which addresses custodial credit risk, interest rate risk, credit risk, and concentration of credit risk.

GASB Statement No. 40, *"Deposit and Investment Risk Disclosures,"* requires disclosures related to the following deposit and investment risks: credit risk (including custodial credit risk and concentration 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, 2023 and 2022, $69,862 and $91,683, respectively, of the Authority's bank balance of $70,112 and $91,933, respectively, was exposed to custodial credit risk; the amounts exposed to custodial credit risk are 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 $67,966 and $83,695 as of December 31, 2023 and 2022, respectively, all of which is reported as current assets in the statements of net position.

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

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

			Maturity in years	
	Carrying value		Less than 1 year	
PA INVEST	$	9,626	$	9,626
Money market		20,393		20,393
U.S. Treasury bills		640		640
Total Investments	$	30,659	$	30,659

At December 31, 2022, the Authority held the following restricted asset investment balances:

			Maturity in years	
	Carrying value		Less than 1 year	
PA INVEST	$	9,183	$	9,183
Money market		17,129		17,129
Total Investments	$	26,312	$	26,312

Money market funds are included in cash and cash equivalents as non-current restricted assets on the statements of net position.

The carrying value of the Authority's investments is the same as their fair value amount. U.S. Treasury bills are valued using quoted market prices (Level 1 inputs).

The Authority's investments in money markets and PA INVEST (external investment pool) 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 the interest rates will adversely affect the fair value of the Authority's investments. The Authority is not subject to interest rate risk, as all of its investments at December 31, 2023 and 2022 had maturities of less than one year.

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

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, 2023, the Authority's investments in PA INVEST were rated AAAm by S&P Global Ratings. The Authority's investments in U.S. Treasury bills at December 31, 2023 were rated AA+ by S&P Global Ratings.

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. The Authority has the following limits, applicable at the time or purchase:

Security Type	Maximum Allocation	Maximum Issuer
U.S. Government Securities	100%	N/A
U.S. Government Agencies & Instruments:		
Guaranteed by the full faith and credit of the United States	100%	N/A
Not guaranteed by the full faith and credit of the United States	60%	40%
Bank Certificates of Deposit	30%	20%
Negotiable Certificates of Deposit	30%	10%
Bank Acceptances	15%	3%
Commercial Paper	20%	3%
Money Market Funds	100%	N/A
Local Government Investment Pools	100%	N/A
Savings or demand deposits	100%	N/A
Repurchase Agreements	25%	10%

The Authority was in compliance with the established limits at December 31, 2023 and 2022.

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

11. Net Position

Net position represents the difference between assets, deferred outflows of resources, and liabilities. An analysis of net position amounts is as follows:

	December 31,	
	2023	2022
Net investment in capital assets:		
Net property, plant, and equipment	$ 1,206,020	$ 1,114,099
Debt subject to capital improvements	(1,177,961)	(1,109,099)
Swap borrowing	(35,965)	(55,974)
Deferred charge on refunding	63,130	75,822
Accounts payable for capital items	(14,919)	(12,165)
Restricted for capital activity and debt service:		
Debt service and reserve funds	9,735	6,517
	50,040	19,200
Restricted assets:		
Operating reserve account	20,284	19,178
Other funds	640	617
	20,924	19,795
Unrestricted	12,773	25,537
Total net position	$ 83,737	$ 64,532

12. Commitments and Contingencies

The Authority is proceeding with a capital improvement program which the Authority's independent engineer has estimated will entail expenditure of the existing construction funds and potential future bond issues.

The Authority was insured for general liability coverage through 2001; however, effective January 1, 2002, it became self-insured. In previous years, the Authority established a fund to pay for deductibles, small claims, and other litigation costs. At December 31, 2023 and 2022, the balance in this fund was approximately $640 and $617, respectively. This fund is grouped with "Restricted Assets" on the statements of net position. During 2023 and 2022, the Authority paid $0 from this fund for claims.

In addition to the matters discussed below and in Note 13, Consent Agreement, various other claims and lawsuits are pending against the Authority. It is management’s opinion that the financial statements will not be materially affected by any settlements that may occur.

Attorney General Criminal Complaint

In June 2016, the Authority exceeded the drinking water lead action level established under the Pennsylvania Safe Drinking Water Act. As the Authority attempted to meet federal Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (DEP) service line replacement requirements, the Authority violated the Safe Water Drinking Act in 2016 and 2017 by failing to provide 45-day advanced notice of partial service lead line replacement to customers at some homes and failing to provide post-construction test kits. In November 2017, the Authority entered into a consent order agreement with DEP related to these violations that included a civil penalty of $2.4 million. The portion of the Attorney General misdemeanor counts described in the subsequent paragraph that relate to partial lead line replacements and lack of customer notices are duplicative to the violations that resulted in the aforementioned consent order agreement with the DEP.

On April 17, 2019, the Pennsylvania Office of the Attorney General completed a filing in the Allegheny County Court of Common Pleas, Docket CP-02-CR-0002636-2019, alleging 161 third-degree misdemeanor counts under the Pennsylvania Safe Drinking Water Act, which were later reduced to 152 counts. The misdemeanors addressed the Authority’s violations relating to the Authority's unauthorized changes to its corrosion control treatment and its public water system by substituting corrosion control treatment chemicals without first obtaining the appropriate permit from the Pennsylvania Department of Environmental Protection. Also, the Authority performed partial lead service line replacements, which can result in an increase in lead contamination for the residence, without providing its customers with the advance notice and follow-up sampling required under the state and federal safe drinking water regulations.

A Pre-Disposition Remediation Resolution (PDRR) dated July 15, 2020 was developed between the Commonwealth of Pennsylvania, the Pennsylvania Attorney General's (AG) Office, and the PWSA related to unauthorized changes in corrosion control treatment and partial lead service line replacements under prior management and dating back to 2014. The PDRR required the PWSA issue a public statement, make charitable donations totaling $500,000, and enter into a two-year Corporate Monitorship. The Corporate Monitor has been overseeing water treatment plant operations, corrosion control treatment and lead service line replacement efforts, and providing quarterly reports to the AG and the Southwest PADEP office, with their final report issued in the first quarter of 2023. On March 22, 2023, the AG's office submitted to the court that PWSA has satisfied the requirements under the PDRR. The Judge accepted the submission from the AG's office and on March 30, 2023 granted the AG's motion to withdraw charges based on PWSA's compliance with the Pre-Disposition Remediation Resolution.

Lead Mitigation

The Authority continued its critical initiatives to comply with the Consent Order and Agreement, and other requirements mandated by the Pennsylvania Department of Environmental Protection (PADEP) and the Pennsylvania Public Utilities Commission (PUC). These initiatives include: (1) a water treatment program to mitigate lead corrosion so as to comply with current water quality standards, (2) a lead service line replacement (LSLR) program, and (3) a lead service line identification program to be completed by 2020 for residential service line connections and a 2022 update to include all service line connections. These requirements are stipulated in the PADEP Consent Order and Agreement with the Authority dated November 2017.

Water Treatment: Chemical treatment testing of orthophosphate application to the Authority's finished water demonstrated rapid mitigation of lead and copper corrosion to levels well below any current federal drinking water standard. The Authority fully implemented the introduction of orthophosphate to the drinking water system in April 2019, and since then has had two consecutive 6-month rounds of lead monitoring results below Federal action level of 15.0 parts per billion (ppb), along with three additional rounds of lead monitoring also below 15.0 ppb. [Action levels are the EPA's established standard for water system compliance with the Federal Lead and Copper Rule.] The results were as follows:

(DOLLARS EXPRESSED IN THOUSANDS UNLESS OTHERWISE INDICATED)

Sampling Period	**90th Percentile Lead Level (ppb)**
July – December 2019	10.0
January – June 2020	5.1
July – December 2021	7.1
January – June 2022	4.42
July – December 2022	5.0
January – June 2023	3.4
July – December 2023	3.58

The second round of results below the action level removed the mandated requirement to replace lead service lines.

Lead Service Line Replacement: The Authority was ordered by PADEP to replace 1,341 public owned lead service lines by June 30, 2018 and an additional 7 percent of the public owned lead service lines by December 31, 2018 (a total of about 2,200). By the end of 2018 a total of 2,765 public lead service lines had been replaced. In addition, the Authority was required to continue to replace 7 percent of the initial number of lead service lines in the system (revised to 855 based upon Authority data) until two consecutive 6-month monitoring period sampling events were below the Federal lead action level (where this replacement requirement ended in June 2020 as described above). As of the date of this report, over 10,900 public, along with over 7,675 private lead service lines have been replaced.

In October 2020, the Authority completed work on the 2019 Neighborhood LSLR project with $49.1 million in funding through PENNVEST, of which $35.4 million was a loan and $13.7 million was a grant. This program replaced over 4,738 public and 3,008 private lead service lines (as of March 18, 2022), well above the anticipated amounts of 3,400 public and 2,800 private replacements.

In June 2020, the Authority transitioned into the next phase of the LSLR program by replacing lead service lines in concert with a water main replacement program. In this manner, the Authority minimizes the overall cost for water main and service line replacements. Most of the remaining lead service lines are connected to the oldest water mains in the system, most subject to breakage and failure. The Authority will strive to implement this program at the lowest possible cost to the Authority, while addressing those water mains that have the highest likelihood of failure. The Authority's investment in water main replacement will continue unabated to ensure that the Authority can mitigate the amount of annual pipe breaks and minimize the risk of service disruption to its customers. The Authority's program intends to achieve an average water main life expectancy more in line with national standards.

In 2022, with the availability of outside funding sources, the Authority commenced additional LSLR projects. The first was funded by PENNVEST and focused on removing lead service lines at day care facilities and locations with elevated levels of lead in the drinking water. The 2022 Priority LSLR program was extremely successful and all LSLR work was completed by late 2022. The 2022 Neighborhood LSLR program was funded by American Recovery Plan Act funds, and construction of the $17.5M program commenced in April 2022. The Authority is currently completing the last of the work under the 2022 Neighborhood LSLR including service line identification and LSLR at over 2,600 properties.

Finally, with funding being provided for LSLRs by the Infrastructure Investment and Jobs Act, PWSA is planning to submit additional funding requests to PENNVEST for continued Neighborhood LSLR programs on a semi-annual basis. To date, three projects have been funded: a $13.4M project that commenced in July 2023, a $12.2M project starting in March 2024 and a $32M project starting in August 2024. Another application for continued PENNVEST funding is planned for May 2024.

In summary, as of March 13, 2023, the Authority has replaced a total of more than 10,900 public and 7,675 private lead service lines under all programs involving the removal of lead service lines, including the Lead Service Line Replacement Program (2016 through 2023 Contracts) and Small Diameter Water Main Replacement Program.

Small Diameter Water Main Replacement Program: The ongoing Small Diameter Water Main Replacement (SDWMR) Program consists of a series of annual projects designed to replace aging and undersized water mains in neighborhoods with a high likelihood of having lead service lines.

The 2020 SDWMR projects consisted of three individual construction contracts totaling nearly 15 miles of new water main. These projects were designed in 2019, construction started in mid-2020 and were completed in December 2021 and, inclusive of design and construction, cost approximately $56 million.

The second phase of SDWMR projects (2021 SDWMR) was funded by PENNVEST. Designs for three 2021 SDWMR Projects (Contracts A / B / C) started in August 2020 and were complete February 2021. Based on the Opinion of Probable Construction Costs (OPCC) for the 3 Contracts, a decision was made to move two of the three 2021 contracts (B / C) forward to bidding in March 2021. Due to a delay with closing the PENNVEST funding, Contracts B and C were cancelled, and rebids were received in December 2021. Construction of the 2021B and 2021C SDWMR Projects began in late March 2022 and reached substantial completion in September 2023. Nearly 6 miles of pipeline replacement including associated valving, fittings and hydrants were completed in six neighborhoods across the Authority service area, including the concurrent replacement of 929 public-side service lines (589 copper and 340 lead) and 293 lead private-side service lines. Construction cost for 2021B and 2021C was approximately $27 million. The design for 2021C SDWMR was renamed 2022C SDWMR and bid at the same time as 2022A and 2022B SDWMR Contracts (see below).

The third phase of SDWMR projects (2022 SDWMR) was funded by PENNVEST. Designs for the 2022A and 2022B SDWMR projects were started August 2021 and were completed October 2022. Resolution of clean fill disposal requirements delayed bidding until March 2023. Construction bids were received for the 2022 SDWMR projects in May 2023, greatly exceeding the construction cost estimates, only allowing for two (2022B and 2022C) of the three construction contracts to proceed construction on time in late-Summer/early-Fall of 2023. Construction of Contracts 2022B and 2022C continues in 2024. Total construction value for these projects is $60.1M as of March 2024, which includes addressing 7.6 miles of the more than 9 miles of water mains planned and replacement of over 515 of the 1,250 water service lines planned as of March 2024. Rebidding of the delayed 2022A Contract (divided into 2 Contracts, A1 and A2) was initiated in March of 2024, and anticipated to be awarded in May 2024.

The fourth phase of SDWMR projects (2023 SDWMR) was funded by PENNVEST. Design of the 2023A1/A2/B1/B2 SDWMR Projects began in April 2023. Bidding for construction of these four separate SDWMR projects that address eight neighborhoods is expected to occur in stages during the second to third quarter of 2024. These projects will construct approximately 19.5 miles of new water mains and will replace nearly 2,800 public-side service lines and 1,650 lead private-side service lines. The estimated cost of this work will be nearly $93M.

The 2024, 2025, 2026, 2027, and 2028 contracts are currently in the 2024 Capital Improvement Plan with a total cumulative value of $586.5 million, which equates to approximately 78 miles of small diameter water main to be replaced.

Lead Service Line Identification Program: The lead service line identification program determines the materials of manufacture for each existing water service line in the Authority's system. The first phase of that program was completed with the digitization of existing records. The second phase, which has evolved since the signing of the consent order, consists of a combination of verification inspections and replacement records of ongoing infrastructure programs, video inspection of accessible residential service lines to evaluate the materials of manufacture, identification of private service lines while replacing meters, the development of a machine-learning predictive model in conjunction with the University of Pittsburgh and further records-mining with the Authority, City of Pittsburgh and Allegheny County Plumbing Department. This phase was completed in December 2020 and submitted to the PADEP, in compliance with the Consent Order and Agreement. The third phase includes identifying service line materials for non-residential customers and providing an update for all locations. This effort was submitted to PADEP in December 2022.

The Identification Program will culminate in a complete digital file and mapping of all service lines within the Authority's service territory. All updated records are made publicly available on the Authority's website within one month of the data being collected.

The Environmental Protection Agency's ("EPA") Lead and Copper Rule Revisions (LCRR) mandates all utilities submit an updated service line inventory by October 2024. In conjunction with this requirement, the PADEP provided new requirements for acceptable inventory methods late 2022. The Authority is presently updating our inventory based on the new PADEP requirements, including having a new machine learning predictive model prepared and instituting a large-scale program to identify service line materials inside customer's homes.

Environmental Protection Agency

The Authority has been cooperating with the EPA's investigation of the Authority's Aspinwall Water Treatment Plant ("Water Treatment Plant") for nearly three years. The Authority and EPA have negotiated a resolution that addresses the violations alleged by EPA. On January 15, 2021, pursuant to a plea agreement, the Court entered the Authority's plea of guilty to two counts of violations of the Clean Water Act. The terms of the settlement are contained in a plea letter dated December 30, 2020 and executed by the Authority on January 13, 2021. The terms of the Plea Agreement included:

- Three Year Probation Period
- $500,000 Compliance Fund
- Environmental Compliance Program
- Environmental Compliance Manual for Water Production
- Reporting of Allegations
- Training (New Hire and Refresher)
- Independent Environmental Audit
- Establishing Position of Environmental Compliance Manager reporting to CEO
- Ethics & Deterrence of Criminal Conduct
- Annual Audits & Reports on the Compliance Program

Sentencing occurred on September 14, 2021 and included seven standard conditions of supervision and reference to the requirements established in the Plea Agreement. A U.S. Probation Officer has been assigned to PWSA and the Authority is required to provide monthly updates to the probation officer.

EPA's Suspension and Debarment Division placed the Authority on its Suspension and Debarment list upon the Authority's guilty plea on September 14, 2021. EPA and the Authority entered into an Administrative Agreement, which allowed the Authority to be promptly removed from the list on the same day. The Administrative Agreement includes the following provisions:

- Four Year Term
- Compliance with current State and Federal Plea Agreements
- Completion of Current Projects

- Establish a Chief Environmental Compliance and Ethics Officer (“CECEO”)
- Establish Ethics and Compliance Program, including:
    - Code of Ethics
    - Code of Conduct
    - Non-Retaliation Policy
    - Whistleblower System
- Development of a Training Policy and Training Tracking
- Expansion of Environmental Compliance Program to all of PWSA
- Retain an Independent Monitor to oversee the Administrative Agreement
- Submittal of Regular Reports and Certifications

A Pre-Disposition Remediation Resolution (PDRR) dated July 15, 2020 was developed between the Commonwealth of Pennsylvania, the Pennsylvania Attorney General's (AG) Office and the Authority related to unauthorized changes in corrosion control treatment and partial lead service line replacements under prior management and dating back to 2014. The PDRR required the Authority to issue a public statement, make charitable donations totaling $500,000, and enter into a two-year Corporate Monitorship. The Corporate Monitor has been overseeing water treatment plant operations, corrosion control treatment and lead service line replacement efforts and providing quarterly reports to the AG and the Southwest PADEP office, with their final report issued in the first quarter of 2023. On March 22, 2023 the AG’s office submitted to the court that the Authority has satisfied the requirements under the PDRR. The Judge accepted the submission from the AG’s office and on March 30, 2023 granted the AG’s motion to withdraw charges based on PWSA’s compliance with the Pre-Disposition Remediation Resolution.

13. Consent Agreement

The Authority is subject to federal regulation under the Clean Water Act (1977) and regulations adopted under that Act. Among the specific requirements applicable to the Authority’s system are those imposed by the United States Environmental Protection Agency’s (USEPA’s) Combined Sewer Overflow (CSO) Policy (1994). On January 29, 2004, the Authority and the City of Pittsburgh executed a Consent Order and Agreement (COA) regarding wet weather sewer overflows within the City. The other signatories to the COA are the Pennsylvania Department of Environmental Protection (DEP) and the Allegheny County Health Department (ACHD).

Generally, the COA required the Authority and the City to assess the City sewers to develop a plan with Allegheny County Sanitary Authority (ALCOSAN) to address wet weather sewer overflows within the City. The COA is part of a sewer assessment program for all municipalities served by ALCOSAN. To date, assessment activities have been completed for all accessible critical sewers and separate sanitary sewers with the exception of any additional sewers discovered through continued research and investigation. Critical sewers were defined in the COA as: trunk sewers that are a final conveyance to the ALCOSAN Sewer System, sewers associated with areas of chronic basement flooding, sewers associated with areas of chronic maintenance, sewers associated with areas of chronic surcharge, sewers downstream of diversion structures, sewers where additional information is necessary for model development, and sewers deemed a priority for inspection by a professional engineer. Ongoing pipe and manhole repairs are being completed to provide closed-circuit television (CCTV) access to remaining inaccessible critical/sanitary sewer pipes. Assessment activities for non-critical sewers are to be completed on a longer schedule. The majority of accessible non-critical manholes have been inspected with ongoing efforts to complete any remaining or newly identified accessible non-critical manholes. The required Wet Weather Feasibility Study (WWFS) was submitted to the DEP and ACHD on time in July of 2013. This long-term control plan outlined system-wide improvements, including Green Infrastructure (GI) that the Authority would implement over the next 20 years.

As this COA with the DEP expired in March 2015, the USEPA became the main regulatory body to which the Authority is responsible. On January 21, 2016 the USEPA issued a Clean Water Act Section 308 Information Request to the Authority. The USEPA 308 request required the Authority to submit detailed information on past CSO performance and activities. It also required the Authority to conduct a source reduction analysis for the entire service area, followed by GI demonstration projects.

The Authority hired two engineering firms to assess and model the sewer system, responding to the first phase of the USEPA 308 request by the due of March 31, 2016. The second phase of the request was responded to by the submission of a source reduction study by the due date of December 1, 2016, and the submission of project performance evaluations for certain construction GI demonstration projects by the due date of December 1, 2017. An additional 308 request from the USEPA was received in October 2016 seeking more detailed information and further actions regarding the assessment of the Authority's sewer system. The response to the October 2016 request from the USEPA was delivered in January 2017.

In addition to the assessment, the USEPA 308 request also required the Authority and the City to continue implementing the Nine Minimum Controls to reduce combined sewer overflows, and to perform repairs and maintenance of deficiencies revealed by the assessment. The Authority maintains an expedited response to significant structural failures of the sewer system where imminent structural failures are determined by a professional engineer and prioritized for repair. Ongoing sewer line replacement, point repair, and trenchless rehabilitation projects have been implemented to address structural deficiencies. The USEPA 308 request also required the submission of information on an ongoing, rolling basis, updating the progress of the evaluations and improvements, as well as water quality impacts. These reports are submitted monthly and are ongoing.

The Authority has begun negotiations with EPA, the U.S. Department of Justice (DOJ), and DEP over the terms of a consent decree (CD) that will address the control of sanitary and combined sewer overflows within the City of Pittsburgh. Such a decree will likely set out an enforceable framework for bringing the Authority's sanitary and combined sewer systems into compliance with applicable requirements of the federal Clean Water Act and Pennsylvania Clean Streams Law.

Given the broad scope of a potential CD, the size of the sewer system in the City, and the various conditions and/or deficiencies that may be discovered by the assessment, it is difficult to predict the total cost of compliance with the CD. Moreover, it is difficult to predict what, if any, large-scale and/or regional capital improvements may be required after the completion of the assessment to address wet weather sewer overflows in the City and in the ALCOSAN service area. Costs associated with CD and COA compliance will be reflected in the capital improvement program and funded by proceeds of potential future bond issuances.

SUPPLEMENTARY INFORMATION

PITTSBURGH WATER AND SEWER AUTHORITY

COMBINING STATEMENT OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2023

	Water	Sewer	Sewer Treatment	Total
Assets				
Current assets	$ 77,107	$ 37,978	$ -	$ 115,085
Noncurrent assets	837,215	412,360	-	1,249,575
Total Assets	914,322	450,338	-	1,364,660
Deferred Outflows of Resources				
Deferred charge on refunding	42,297	20,833	-	63,130
Liabilities				
Current liabilities	71,112	35,025	-	106,137
Noncurrent liabilities	856,132	352,704	16,184	1,225,020
Total Liabilities	927,244	387,729	16,184	1,331,157
Deferred Inflows of Resources				
Accumulated increase in fair value of hedging derivatives	8,640	4,256	-	12,896
Net Position				
Net investment in capital assets	33,527	16,513	-	50,040
Restricted	14,019	6,905	-	20,924
Unrestricted	(26,811)	55,768	(16,184)	12,773
Total Net Position	$ 20,735	$ 79,186	$ (16,184)	$ 83,737

PITTSBURGH WATER AND SEWER AUTHORITY

COMBINING STATEMENT OF REVENUES, EXPENSES, AND
CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEAR ENDED DECEMBER 31, 2023

	Water	Sewer	Sewer Treatment	Total
Operating Revenues	$ 158,149	$ 52,776	$ 87,791	$ 298,716
Operating Expenses:				
Direct operating expenses	77,758	38,298	-	116,056
Wastewater treatment	-	-	90,060	90,060
Reimbursement for City of Pittsburgh indirect services	4,073	-	-	4,073
Expense of water provided by other entities	164	-	-	164
Depreciation	22,174	10,922	-	33,096
Total operating expenses	104,169	49,220	90,060	243,449
Operating Income (Loss)	53,980	3,556	(2,269)	55,267
Non-operating Revenues (Expenses):				
Federal and private grants	7,974	3,927	-	11,901
Interest revenue	1,266	624	-	1,890
Interest and amortization	(28,951)	(14,259)	-	(43,210)
Bond issuance costs	(1,284)	(633)	-	(1,917)
Total non-operating revenues (expenses)	(20,995)	(10,341)	-	(31,336)
Net Income (Loss) before Capital Contribution and Special Item	32,985	(6,785)	(2,269)	23,931
Capital Contribution:				
Donated property	2,123	1,045	-	3,168
Special Item:				
Private lead line replacement, net	(7,894)	-	-	(7,894)
Net Income (Loss)	27,214	(5,740)	(2,269)	19,205
Net Position:				
Beginning of year	(6,479)	84,926	(13,915)	64,532
End of year	$ 20,735	$ 79,186	$ (16,184)	$ 83,737

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

YEAR ENDED DECEMBER 31, 2023

Federal Grantor/Pass-Through Grantor/Program Title	Federal ALN	Pass through Grantor's Number	Cash Receipts	Expenditures	Amounts Provided to Subrecipients
Department of the Treasury:					
Passed through the City of Pittsburgh:					
COVID-19: Coronavirus State and Local Fiscal Recovery Funds	21.027	n/a	$ 7,693,170	$ 9,693,993	$ -
United States Environmental Protection Agency:					
Passed through Pennsylvania Infrastructure Investment Authority (PENNVEST):					
Clean Water State Revolving Funds Cluster:					
Capitalization Grants for Clean Water State Revolving Funds	66.458	75373/75385/71452/77104/71459/71465	14,578,806	24,882,521	-
Drinking Water State Revolving Funds Cluster:					
Capitalization Grants for Drinking Water State Revolving Funds	66.468	85205/81034/87100/80203/87102/80209/80210/80214/80230	11,613,475	36,705,416	-
Total Expenditures of Federal Awards			$ 33,885,451	$ 71,281,930	$ -

See accompanying notes to schedule of expenditures of federal awards.

1. Basis of Presentation

The accompanying schedule of expenditures of federal awards (schedule) of the Pittsburgh Water and Sewer Authority (Authority) is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the schedule presents only a selected portion of the operations of the Authority, it is not intended to and does not present the net position, changes in net position, or cash flows of the Authority.

2. Summary of Significant Accounting Policies

Expenditures reported on the schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. The Authority has elected to not use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance.

3. Determination of Federal Expenditures

The amount of federal expenditures for the United States Environmental Protection Agency programs listed on the schedule represent the expenditures incurred under certain loans during the year ended December 31, 2023. The United States Environmental Protection Agency requires that the current year expenditures incurred under the loans be reported on the schedule rather than the beginning balance of the loans. Therefore, the Authority has no ongoing compliance requirements other than those relating to the year in which the expenditures are incurred.

Pittsburgh Water and Sewer Authority

Independent Auditor's Reports
Required by the Uniform Guidance

Year Ended December 31, 2023

<u>Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*</u>

Board of Directors
Pittsburgh Water and Sewer Authority

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities of Pittsburgh Water and Sewer Authority (Authority), a component unit of the City of Pittsburgh (City), Pennsylvania, as of and for the year ended December 31, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated April 19, 2024.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Maher Duessel

Pittsburgh, Pennsylvania
April 19, 2024

Independent Auditor's Report on Compliance for Each Major Program and on Internal Control over Compliance Required by the Uniform Guidance

Board of Directors
Pittsburgh Water and Sewer Authority

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited the Pittsburgh Water and Sewer Authority's (Authority), a component unit of the City of Pittsburgh (City), Pennsylvania, compliance with the types of compliance requirements identified as subject to audit in the OMB Compliance Supplement that could have a direct and material effect on each of the Authority's major federal programs for the year ended December 31, 2023. The Authority's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

In our opinion, the Authority complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2023.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditor's Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the Authority's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to the Authority's federal programs.

Auditor's Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the Authority's compliance based on our audit. 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, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the Authority's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, 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 Authority's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the Authority's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Report on Internal Control over Compliance

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditor's Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Maher Duessel

Pittsburgh, Pennsylvania
April 19, 2024

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED DECEMBER 31, 2023

I. Summary of Audit Results

1. Type of auditor's report issued: Unmodified, prepared in accordance with Generally Accepted Accounting Principles

2. Internal control over financial reporting:

   Material weakness(es) identified? ☐ yes ☒ no
   Significant deficiencies identified that are not considered to be material weakness(es)?
   ☐ yes ☒ none reported

3. Noncompliance material to financial statements noted? ☐ yes ☒ no

4. Internal control over major programs:

   Material weakness(es) identified? ☐ yes ☒ no
   Significant deficiencies identified that are not considered to be material weakness(es)?
   ☐ yes ☒ none reported

5. Type of auditor's report issued on compliance for major programs: Unmodified

6. Any audit findings disclosed that are required to be reported in accordance with 2 CFR Section 200.516(a)? ☐ yes ☒ no

7. Major Programs:

Assistance Listing Number(s)	Name of Federal Program or Cluster
66.468	DWSRF Cluster: Capitalization Grants for Drinking Water State Revolving Funds
21.027	COVID-19: Coronavirus State and Local Fiscal Recovery Funds

8. Dollar threshold used to distinguish between type A and type B programs: $2,138,458

9. Auditee qualified as low-risk auditee? ☒ yes ☐ no

II. Findings related to the financial statements which are required to be reported in accordance with GAGAS.

No matters were reported.

III. Findings and questioned costs for federal awards

No matters were reported.

PITTSBURGH WATER AND SEWER AUTHORITY

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

YEAR ENDED DECEMBER 31, 2023

NO FINDINGS NOTED