Office of the Washington State Auditor
Pat McCarthy

July 6, 2023

Council and Executive
King County
Seattle, Washington

Contracted CPA Firm's Audit Report on Financial Statements

We have reviewed the audit report issued by a certified public accounting (CPA) firm on the financial statements of King County Water Quality Enterprise Fund for the fiscal year ended December 31, 2022. The County contracted with the CPA firm for this audit and requested that we accept it in lieu of performing our own audit.

Based on this review, we have accepted this report in lieu of the audit required by RCW 43.09.260. The Office of the Washington State Auditor did not audit the accompanying financial statements and, accordingly, we do not express an opinion on those financial statements.

This report is being published on the Office of the Washington State Auditor website as a matter of public record.

Sincerely,

Pat McCarthy, State Auditor

Olympia, WA

Americans with Disabilities

In accordance with the Americans with Disabilities Act, we will make this document available in alternative formats. For more information, please contact our Office at (564) 999-0950, TDD Relay at (800) 833-6388, or email our webmaster at webmaster@sao.wa.gov.

Report of Independent Auditors
and Financial Statements:
with Required Supplementary Information
and Other Information

King County Water Quality Enterprise Fund
(an Enterprise Fund of King County, Washington)

January 1 – December 31, 2022

MOSSADAMS

Table of Contents

MOSSADAMS

Report of Independent Auditors

The Metropolitan King County Council
Seattle, Washington

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the King County Water Quality Enterprise Fund (the "Fund"), which comprise the statement of net position as of December 31, 2022, and the related statements of revenues, expenses, and changes in net position, and cash flows for the year then ended, and the related notes to the financial statements.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the King County Water Quality Enterprise Fund as of December 31, 2022, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) 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 Fund and to meet our other ethical responsibilities, in accordance with the 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 audit opinion.

Financial Reporting Entity

As discussed in Note 1, the financial statements present only the Fund and do not purport to, and do not, present fairly the financial position of King County, Washington, as of December 31, 2022, the changes in its financial position, or, where applicable, its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. 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.

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 GAAS 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 GAAS 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 Fund’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.

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 Management's Discussion and Analysis, the Pension Plan Information and the Postemployment Health Care Plan schedule 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 audit 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.

Other Information

Management is responsible for the other information as listed in the table of contents. The other information comprises the Supplemental Schedule of Debt Service Coverage Ratios and Supplemental Schedule of Historical Debt Service but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated April 28, 2023, on our consideration of the Fund'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 Fund'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 Fund's internal control over financial reporting and compliance.

Moss Adams LLP

Seattle, Washington
April 28, 2023

Management's Discussion and Analysis

The management of King County Water Quality Enterprise Fund (Water Quality) presents to readers of its financial statements this narrative overview and analysis of its activities and financial performance for the fiscal year ended December 31, 2022, with comparative information to 2021.

The Sewer System

Water Quality provides regional wastewater treatment services to Western Washington in King County, part of Snohomish County, and part of Pierce County with a service area encompassing over 424 square miles. The major wastewater treatment facilities include three secondary treatment plants located at West Point in Seattle, South Plant in Renton and the Brightwater Treatment Plant located near Woodinville and two smaller secondary treatment plants at Vashon Island and Carnation, 397 miles of conveyance lines, 48 pump stations, and 25 regulator stations. Other facilities include five combined sewer overflow (CSO) treatment plants and 39 CSO control locations. The sewer system collected and treated an average of 185 million gallons per day (MGD) in 2022 from approximately 2.0 million residents.

Financial Highlights

During 2022, Water Quality provided sewage treatment services to 749,117 residential customer equivalents (RCE) compared to 738,286 in 2021. An RCE is one single-family residence or an equivalent unit of 750 cubic feet of monthly water consumption for all other customers such as multifamily residential, commercial, and industrial properties. The capacity charge program added 8,759 new connections to its customer billing base in 2022 compared to 6,720 new connections in 2021. In 2022, the average flow of the five treatment plants was 185 MGD with a peak daily flow of 720 MGD compared with a 2021 average flow of 183 MGD and peak daily flow of 580 MGD. Maximum system capacity remained unchanged at 868 MGD in 2022. The annual fluctuation in flows largely depends on the amount of annual precipitation.

In 2022, resource recovery delivered 123,502 tons compared to 116,182 tons in 2021 of Loop® biosolids to customers for use in forest management, agriculture, and composting. Approximately 103.0 million gallons of Class A reclaimed water was distributed for irrigation, urinals/toilets, municipal purposes, and wetland enhancement compared to 77.8 million gallons in 2021 and about 783 million gallons of filtered, treated wastewater were used for internal treatment plant processes compared to 679 million gallons in 2021. The permitted capacity for the South Plant reclaimed water facility is a filter feed loading of 1.3 MGD and the Brightwater permitted reclaimed water treatment capacity is 12 MGD.

Water Quality sold 2.7 million therms of natural gas to Industrial Gas Infrastructure (IGI) Resources, Inc. and Anew Climate from the South Treatment Plant in 2022 and 2.6 million therms in 2021. Congressional action under the Energy Independence Security Act and subsequent rulemaking by the Environmental Protection Agency (EPA) created an opportunity for Water Quality to monetize the environmental benefit of its biofuel through the generation and sale of environmental attributes called Renewable Identification Numbers (RINS). In November 2016, King County entered an agreement with IGI Resources, Inc, for the sale of bio-methane from South Plant and the corresponding RINS. The agreement with IGI Resources was replaced in August 2022 with an agreement between King County and Anew Climate. In 2022, RINS revenues were $7.8 million from which $672 thousand was paid for operational costs to fulfill the administrative and operations requirements of the contract and to improve the operation of the biogas system. In 2021, RINS revenue totaled $7.3 million from which $802 thousand was paid for operational and administrative costs and improvement of the operation of the biogas system. West Point Treatment Plant sold Seattle City Light 11.9 million kilowatt hours of electricity generated from digester gas in 2022 and 12.7 million kilowatt hours in 2021.

The Industrial Pretreatment Program conducted 225 inspections and took 1,607 compliance samples in 2022 compared to 220 inspections and 1,580 compliance samples taken in 2021.The program currently tracks 517 facilities with discharge authorization permits and 102 significant industrial users compared to 567 facilities with discharge authorization permits and 103 significant industrial users in 2021.

In 1999, the Metropolitan King County Council adopted the Regional Wastewater Services Plan (RWSP) to construct additional capacity, protect public health and provide for future projected population growth in its service area through 2030. Major RWSP projects include improvements to the regional conveyance system and CSO control projects, including the substantial completion of the Georgetown Wet Weather Treatment Station. Total capital program expenditures were $258.6 million in 2022.

Water Quality currently has 39 CSO locations plus five CSO treatment facilities. Past investments conducted in concert with the City of Seattle have resulted in a significant reduction in combined sewer overflows from a baseline of 2.3 billion gallons per year in years 1980–1983 to an average of 1 billion gallons per year at present.

In 2013, the EPA entered a consent decree (CD) with Water Quality to reduce CSO overflows to meet the regulator's standards for discharges or treatment by 2030. The consent decree is based on Water Quality's 2012 Amended Long-term CSO Control Plan (the Plan). The Plan amended the original total of 21 CSO projects to 13 projects that will control 18 CSO locations. In 2016, the EPA approved a CD modification to combine two projects into one joint project with the City of Seattle. By 2018, six projects to control seven CSO locations were either completed or operational and under monitoring for compliance. At present, three projects are underway to control nine CSO locations, including the joint project with the City of Seattle to control two King County CSO locations.

In October 2019, King County formally requested, and subsequently has begun negotiations to modify King County's CD with EPA and Washington State Department of Ecology (DOE) to address changed conditions since the CD was signed. These changed conditions include substantially higher cost estimates for planned CSO control projects, climate change impacts, increases in regulatory requirements for nutrient discharges to Puget Sound and rate affordability. Any potential modification agreed to by EPA, Ecology and the U.S. District Court would also need King County Council approval.

The EPA and DOE will monitor Water Quality's progress with CSO control and work closely with the enterprise going forward to meet CSO control requirements. In accordance with the county's National Pollutant Discharge Elimination System (NPDES) permit for the West Point Treatment Plant and the consent decree, a review of the CSO Program was submitted to the DOE as part of the West Point permit renewal, stating no changes to the Plan. The next update to the Plan is due to the DOE and EPA in 2026 as part of the next West Point NPDES permit renewal.

Water Quality operating revenues increased by 6.1 percent, or $32.8 million, to $567.3 million in 2022 from $534.5 million in 2021 while operating expenses before depreciation and amortization increased by 14.6 percent, or $20.6 million, to $158.8 million in 2022 from $138.2 million in 2021. Increased RCEs and rates for sewer and capacity charge, a 34.7 percent jump in early payoff of capacity charges and an increase in methane revenue contributed to the revenue increase. The increase in operating expenses before depreciation and amortization is reflected in a 33.6 percent increase in chemicals used to treat sewage, a 13.3 percent increase in utility and service expenses and actuarial changes in the estimation of pension expense.

The RCEs billed for sewer treatment services rose 1.5 percent to 749,117 in 2022 from 738,286 (based on sewer revenues that include sewer agency prior year adjustments) in 2021. Capacity charge revenues increased 8.1 percent, or $7.4 million, to $98.2 million in 2022 from $90.8 million in 2021. The capacity charge rate increased to $70.39 per RCE in 2022 from $68.34 per RCE in 2021 while the number of new sewer connections increased by 30.3 percent relative to a 3.0 percent increase in 2021. Early capacity charge payoffs increased by 34.7 percent compared to a decrease of 11.1 percent in 2021. The County allows the capacity charge to be prepaid on a discounted basis at the customer's option. The annual discount rate is set to reflect the 15-year mortgage rate and the yields on the 10- and 20-year Treasury bonds. The rate was 2.1 percent in 2022 and 2.6 percent in 2021. In June of 2022, the County Council adopted a capacity charge of $72.50, a 3.0 percent increase, along with a 5.8 percent sewer rate increase to $52.11 for 2023.

The rate stabilization reserve, as mandated by the Metropolitan King County Council as part of its rate setting activities, permits Water Quality to set aside a portion of current revenue for future periods to moderate the impact of rate increases over time. The rate stabilization reserve was unchanged at $46.3 million in 2022. Future deposits to the rate stabilization reserve will decrease operating revenues and debt service coverage in the year of the deposit. Withdrawals will have the opposite effect of increasing operating revenues and debt service coverage in the year the rate stabilization reserve is reduced.

In 2022 Water Quality issued debt to refund existing bonds and to fund its capital program, and voluntarily redeemed and decreased existing debt using funding from operations. Water Quality received $44.9 million in low interest state loans at rates between 0.8 and 2.7 percent. More detail can be found in the Debt Administration section of this analysis and in Note 5 of the financial statements.

Overview of the Financial Statements

This discussion and analysis are intended to serve as an introduction to Water Quality's basic financial statements. The basic financial statements are comprised of the statement of net position; statement of revenues, expenses, and changes in net position; statement of cash flows; and the notes to the financial statements, which explain certain elements of the financial statements in greater detail.

Water Quality's financial statements provide information with respect to all its activities using accounting methods like those used by private-sector companies. The statements provide both long-term and short-term information about Water Quality's financial status.

The statement of net position presents information on all of Water Quality's assets, liabilities, and deferred inflows/outflows of resources, with the difference presented as net position as of yearend. Over time, the statements demonstrate Water Quality's financial health by providing a basis for the reader to evaluate capital structure, liquidity, and financial flexibility.

The most recent year's operating, and non-operating revenues and expenses of Water Quality are accounted for in the statement of revenues, expenses, and changes in net position. The statement illustrates the current period results of operations and recovery of costs by receipt of fees and are instrumental in demonstrating Water Quality's continued creditworthiness. All changes in net position are reported as soon as the underlying event occurs, irrespective of the timing of related cash flows. The receipt of monthly sewage treatment charges provides the principal support for Water Quality's activities. Sewage treatment charges of $443.0 million provided 78.1 percent of operating revenues in 2022. Water Quality is a wholesale provider of sewage treatment services to 34 municipal and 3 non-municipal participants in King, Pierce, and Snohomish counties. The receipt of the monthly payments is governed by service agreements, the majority of which expire in July 2036.

The statement of cash flows reports cash receipts, cash payments, and net changes in cash derived from operations, financing, and investment activities. From the statement, the reader can discern Water Quality's sources and applications of cash during 2022, reasons for differences between operating cash flows and operating income, and the effect on the statement of net position from investing, capital, and financing activities.

The notes to financial statements provide additional information essential to obtain a full understanding of the data provided in the basic statements.

In the following analysis of the financial statements, percentages and ratios were calculated and rounded using the actual detail from the financial statements.

Financial Analysis of the Statement of Net Position

Comparative data, stated in millions of dollars:

	Years Ended December 31, 2022	2021
Current assets	$ 530.6	$ 489.7
Noncurrent restricted assets	208.1	391.1
Capital assets	4,125.6	4,078.1
Other	175.9	170.7
Total assets	5,040.2	5,129.6
Deferred outflows of resources	170.6	169.4
Total assets and deferred outflows of resources	5,210.8	5,299.0
Current liabilities	391.0	401.6
Noncurrent liabilities	3,681.4	3,810.4
Total liabilities	4,072.4	4,212.0
Deferred inflows of resources	69.6	104.6
Total liabilities and deferred inflows of resources	4,142.0	4,316.6
Net position - net investment in capital assets	440.7	410.4
Net position - restricted	269.9	251.2
Net position - unrestricted	358.2	320.8
Total net position	$ 1,068.8	$ 982.4

Net position serves as a useful indicator of Water Quality's financial position. As of December 31, 2022, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $1,068.8 million.

Of the total Water Quality assets and deferred outflows of resources, 79.2 percent or $4,125.6 million were invested in capital assets such as treatment plants, pumping and regulator stations, interceptors, and other equipment at year-end 2022. For the year-end 2021, 77.0 percent or $4,078.1 million were invested in capital assets. Water Quality uses its capital assets to provide wholesale wastewater collection and treatment services in King, Pierce, and Snohomish counties. Current operating and debt service requirements are met by operating and non-operating revenues composed of monthly sewage treatment charges, a capacity charge for new customers, other special-handling charges, miscellaneous operating revenues, and investment earnings.

The net position increased by 8.8 percent or $86.4 million in 2022 to $1,068.8 million from $982.4 million in 2021. Restricted net position increased by 7.4 percent or $18.7 million in 2022 to $269.9 million from $251.2 million in 2021. Comprehensive planning costs and actuarial net pension estimate changes were the main cause for the restricted net position increase. The unrestricted net position increased by $37.4 million in 2022 to $358.2 million from $320.8 million in 2021. Increased operating income and lower interest rate debt contributed to the unrestricted net position increase.

Financial Analysis of the Statement of Revenues, Expenses, and Changes in Net Position

Comparative data, stated in millions of dollars:

	Years Ended December 31,	
	2022	2021
Sewage treatment fees	$ 442.9	$ 419.7
Capacity charge revenue	98.2	90.8
Other revenue	26.2	24.0
Operating revenues	567.3	534.5
Operating expenses	350.2	325.6
Operating income	217.1	208.9
Contributions and grants	0.6	3.7
Other—net	(131.3)	(123.8)
Change in net position	86.4	88.8
Net position beginning of year	982.4	893.6
Net position end of year	$ 1,068.8	$ 982.4

While the statement of net position shows changes in assets, liabilities, deferred inflows/outflows of resources and net position, the statement of revenues, expenses and changes in net position provides insight into the source of these changes.

Despite the challenges brought by the COVID-19 pandemic, Water Quality continued to protect public health by treating our region's sewage and ensuring its infrastructure's resiliency. Water Quality developed mitigation strategies to lessen the impact of any revenue loss with debt service savings in the form of low bond and commercial paper interest rates, and operating cost controls. During 2022, operating revenues increased by 6.1 percent or $32.8 million to $567.3 million from $534.5 million in 2021. Operating expenses increased by 7.6 percent, or $24.6 million to $350.2 million in 2022 from $325.6 million in 2021.

Operating Revenues

In 2022, sewage disposal fee revenue increased by 5.6 percent, or $23.3 million to $443.0 million from $419.7 million in 2021. Water Quality charged a monthly sewage treatment rate of $49.27 per RCE in 2022 compared to $47.37 in 2021 which helped mitigate the 3.8 percent reduction in multifamily residential, commercial, and industrial RCEs caused by the pandemic in 2021.

Capacity charge revenue grew 8.2 percent, or $7.4 million to $98.2 million in 2022 compared to $90.8 million in 2021. New sewer connections grew by 30.3 percent to 8,759 in 2022 from 6,720 in 2021. Early payoff revenues increased by 34.8 percent to $22.1 million in 2022 from $16.4 million in 2021. The rise in new sewer connections, a sewer rate increase and early payoff revenues reflect a positive trend in post-pandemic recovery, however the number of new sewer connections remain 30.0 percent lower than the 2019 new sewer connections of 12,513.

Other operating revenues totaling $26.2 million in 2022 increased $2.2 million, or 9.2 percent, compared to $24.0 million in 2021. This increase was primarily due to an increase in methane sales and industrial waste rates.

Operating Expenses

In 2022, operating expenses, excluding depreciation and amortization, rose 14.9 percent or $20.6 million to $158.8 million compared to a 10.6 percent decrease, or $138.2 million in 2021. The increase can be attributed to price increases in fuel and sewage treatment chemicals, higher electricity costs, and increased labor costs.

Utility and service costs increased 14.4 percent, or $5.1 million from $35.4 million in 2021 to $40.5 million in 2022. Electricity costs rose by 12.5 percent, or $1.9 million, to $17.1 million from $15.2 million in 2021. Natural gas and water utility costs increased 26.7 percent from $1.5 million in 2021 to $1.9 million in 2022. Chemical costs increased by $3.3 million or 33.7 percent in 2022 to $13.1 million. These essential operational costs are subject to market price fluctuation.

Internal services fell 2.2 percent, to $40.1 million in 2022 from $41.0 million in 2021.

Non-operating Revenues and Expenses

Non-operating expenses (net), including federal grants received, rose by $7.5 million to $131.3 million in 2022 from $123.8 million in 2021. Short-term interest costs rose by $3.7 million reflecting utilization of the commercial paper program in place of higher interest bonds and a $2.8 million increase in interest earnings was offset by $9.6 million of unrealized losses in investments.

Capital Assets

On December 31, 2022, Water Quality's investment in capital assets, net of accumulated depreciation, was $4,125.6 million, reflecting an increase of $47.5 million or 1.2 percent more than the balance of $4,078.1 million on December 31, 2021. In 2022, the Georgetown Wet Weather Treatment Station, Fleet Repair & Maintenance Facility and Sunset Heathfield Pump Station projects were placed into service and capitalized.

Large 2022 construction project expenditures include:

- $35.2 million for West Point Power Quality Improvements
- $33.4 million for North Mercer Island & Enatai Interceptors Upgrade
- $24.4 million for Joint Ship Canal CSO Canal
- $13.1 million for West Point Primary Sedimentation Area Roof
- $ 6.2 million for West Point Low-Pressure Sludge Gas/Biogas Piping

Large 2021 construction project expenditures included:

- $29.6 million for Georgetown Wet Weather Treatment Station
- $27.1 million for Joint Ship Canal CSO Control
- $11.3 million for West Point Primary Sedimentation Area Roof
- $ 9.6 million for Sunset and Heathfield Pump Stations & Force Main Upgrade
- $ 7.9 million for Fleet Repair & Maintenance Facility Replacement

For more information on capital assets, refer to Note 7 in the financial statements.

Debt Administration

In January of 2021, Water Quality initiated use of the Commercial Paper (CP) program which is funded by Multi-Modal Limited Tax General Obligation Notes (Payable from Sewer Revenues). The CP program provides flexible, short-term financing and refinancing of long-term fixed or variable-rate debt for Water Quality capital projects. The Notes will not exceed an aggregate principal amount of $250.0 million at any given time.

On June 13, 2022, Water Quality issued $8.2 million in commercial paper notes to refund $8.2 million of Sewer Revenue and Refunding Bonds, Series 2012C to reduce future debt service. Proceeds from this issuance were held in a redemption account until their payment date of July 1, 2022.

On December 2, 2022, Water Quality issued commercial paper notes to purchase State and Local Government Securities for the refunding of $22.7 million of Sewer Revenue Refunding Bonds, Series 2013A. A total of $23.2 million was placed in escrow to redeem the bonds at their earliest redemption dates. Funding for the interest portion of escrow came from operations.

Water Quality has $2.4 billion of sewer revenue bonds and variable rate revenue bonds outstanding at the end of 2022 and had $2.5 billion of sewer revenue bonds and variable rate revenue bonds outstanding at the end of 2021. Revenue bonds are repaid from and secured by a pledge of earnings, revenues and money received by Water Quality from or on account of operation of the sewer system, including receipts from sewage treatment fees, and other income of Water Quality. Revenue bonds are not guaranteed by the full faith and credit of King County.

At the end of 2022, Water Quality has $827.2 million of general obligation bonds and variable rate general obligation bonds outstanding and had $881.4 million of general obligation bonds and variable rate general obligation bonds outstanding at the end of 2021. While the full faith and credit of King County guarantees repayment of principal and interest on general obligation bonds, they are paid from sewage treatment fees and other income.

King County Sewer Enterprise parity revenue bonds ratings of Aa1 from Moody’s Investors Services (Moody’s) and AA+ from Standard and Poor’s (S&P) Global Ratings were affirmed in August 2021. Water Quality’s ratings on its limited tax general obligation bonds of Aaa from Moody’s and AAA from S&P were also affirmed in August 2021. Water Quality’s ratings on its junior lien revenue bonds of Aa2 from Moody’s and AA from S&P were affirmed in December 2021.

As required by bond covenant, Water Quality maintains a bond reserve account, which is funded by cash, Treasury securities investment and surety bond policies. On December 31, 2022, the cash and investment balance in the reserve account was $128.8 million and with a surety bond balance of $29.6 million, totaled $158.4 million. This balance exceeded the reserve account requirement of maximum annual debt service on the parity bonds by $5.0 million. On December 31, 2022, and 2021, respectively, the rate stabilization, liquidity, and asset management financial policy reserves totaled $83.5 million and $81.8 million.

For more detailed information on debt, refer to Note 5 in the financial statements.

Debt Service Coverage Ratios

	Year Ended December 31,	
	2022	2021
Parity and parity lien debt	2.00	1.66
Total debt	1.72	1.57

Two debt service coverage ratios closely monitored by bond rating agencies are coverage on parity debt and coverage on total debt. By bond ordinance, Water Quality sets sewer rates at a level adequate to provide net revenue equal to at least 1.15 times the annual debt service requirement on parity debt. Water Quality has an adopted policy to equal or exceed a ratio of at least 1.25 on parity debt or 0.10 above the ratio required by bond ordinance. Since 2001, Water Quality established a minimum coverage policy of 1.15 on total debt to further strengthen coverage performance.

Requests for Information

This financial report is designed to provide an overview of Water Quality’s financial condition as of the year ended December 31, 2022. Questions concerning this report or requests for additional information should be addressed to Eben Sutton, Chief Accountant for King County, 201 S. Jackson Street, Ste. 710, Seattle, WA 98104.

Financial Statements

King County Water Quality Enterprise Fund
Statement of Net Position (in thousands)
December 31, 2022

CURRENT ASSETS	
Cash and cash equivalents	$ 462,369
Restricted cash and cash equivalents	1,026
Accounts receivable, net	46,780
Lease receivable, current portion	42
Due from other funds	6,084
Due from other governments, net	3,465
Inventory of supplies	10,802
Prepayments	13
Total current assets	530,581
NONCURRENT ASSETS	
Restricted assets	
Cash and cash equivalents	171,388
Investments	14,064
Net pension asset	22,657
	208,109
Capital assets	
Capital assets not being depreciated	760,245
Capital assets, net of accumulated depreciation and amortization	3,365,355
	4,125,600
Other noncurrent	
Regulatory assets, net of amortization	170,726
Lease receivable	18
Other assets	5,167
	175,911
Total noncurrent assets	4,509,620
Total assets	5,040,201
DEFERRED OUTFLOWS OF RESOURCES	
Deferred outflows on refunding	147,957
Deferred outflows on other postemployment benefits	279
Deferred outflows on pension	21,989
Deferred outflows on asset retirement obligations	409
Total deferred outflows of resources	170,634
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 5,210,835

See accompanying notes.

King County Water Quality Enterprise Fund
Statement of Net Position (in thousands)
December 31, 2022

CURRENT LIABILITIES		
Accounts payable	$	51,050
Retainage payable		1,021
Due to other funds		52
Interest payable		59,796
Wages and benefits payable		6,035
Compensated absences, current portion		600
Other postemployment benefits, current portion		167
Unearned revenue		2,796
Lease payable, current portion		226
State loans payable, current portion		5,189
General obligation bonds payable, current portion		40,795
Revenue bonds payable, current portion		66,290
Environmental remediation liability, current portion		5,708
Notes payable		151,200
Other liabilities		47
Total current liabilities		390,972
NONCURRENT LIABILITIES		
Compensated absences		13,040
Other postemployment benefits		2,274
Lease payable		1,203
State loans payable, net		135,537
General obligation bonds payable, net		874,530
Revenue bonds payable, net		2,525,630
Environmental remediation liability		48,351
Asset retirement obligation		1,485
Other liabilities		79,373
Total noncurrent liabilities		3,681,423
Total liabilities		4,072,395
DEFERRED INFLOWS OF RESOURCES		
Regulatory credits - rate stabilization		46,250
Deferred inflows on leases		58
Deferred inflows on refunding		1,415
Deferred inflows on other postemployment benefits		738
Deferred inflows on pension		21,192
Total deferred inflows of resources		69,653
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES		4,142,048
NET POSITION		
Net investments in capital assets		440,733
Restricted for		
Debt service		129,744
Pensions		23,454
Regulatory assets and environmental liabilities		116,668
Unrestricted		358,188
Total net position	$	1,068,787

See accompanying notes.

King County Water Quality Enterprise Fund
Statement of Revenues, Expenses, and Changes in Net Position (in thousands)
Year Ended December 31, 2022

OPERATING REVENUES	
Sewage disposal fees	$ 442,908
Capacity charge revenues	98,193
Miscellaneous revenues	26,227
Total operating revenues	567,328
OPERATING EXPENSES	
Personnel services	54,252
Materials and supplies	23,890
Contract service and other charges	21,410
Utilities	19,118
Internal services	40,146
Depreciation and amortization	171,819
Miscellaneous expenses	19,578
Total operating expenses	350,213
OPERATING INCOME	217,115
NONOPERATING REVENUES (EXPENSES)	
Investment loss	(9,589)
Interest expense	(105,767)
Federal, state, and other operating subsidies	46
Other revenues	2,033
Loss on disposal and impairment of capital assets	(1,544)
Other expenses	(16,440)
Total nonoperating revenues (expenses), net	(131,261)
INCOME BEFORE GRANTS AND CONTRIBUTIONS	85,854
Capital grants and contributions	528
CHANGE IN NET POSITION	86,382
NET POSITION	
Beginning of year	982,405
End of year	$ 1,068,787

See accompanying notes.

King County Water Quality Enterprise Fund
Statement of Cash Flows (in thousands)
Year Ended December 31, 2022

CASH FLOWS FROM OPERATING ACTIVITIES	
Cash received from customers	$ 558,503
Cash received from other funds - internal services	1,069
Cash payments to suppliers for goods and services	(62,006)
Cash payments to other funds - internal services	(40,153)
Cash payments for employee services	(66,523)
Other receipts	1,718
Other payments	(25,093)
Net cash provided by operating activities	367,515
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Transfers in	250
Transfers out	(1,158)
Assistance to others	(2,364)
Net cash used in noncapital financing activities	(3,272)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Acquisition of capital and other utility assets	(215,300)
Proceeds from disposal of capital assets	54
Principal paid on capital financing	(214,114)
Interest paid on capital financing	(145,318)
Proceeds from capital financing	107,147
Subsidies and other receipts	63
Net cash used in capital and related financing activities	(467,468)
CASH FLOWS FROM INVESTING ACTIVITIES	
Purchase of investments	(1,552)
Proceeds from sale and maturity of investments	1,532
Loss on investments	(8,597)
Net cash used in investing activities	(8,617)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(111,842)
CASH AND CASH EQUIVALENTS	
Beginning of year	746,625
End of year	$ 634,783

See accompanying notes.

King County Water Quality Enterprise Fund
Statement of Cash Flows (in thousands)
Year Ended December 31, 2022

RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES	
Operating income	$ 217,115
Adjustments to reconcile operating income to net cash provided by operating activities	
Depreciation and amortization	171,819
Other nonoperating revenue	1,720
Changes in assets	
Accounts receivable, net	(7,137)
Lease receivable	38
Due from other funds	(169)
Inventory of supplies	(1,076)
Net pension asset	38,613
Prepayments, regulatory assets, other assets	(5,198)
Changes in deferred outflows of resources	
Deferred outflows on other postemployment benefits	(181)
Deferred outflows on pension	(16,493)
Deferred outflows on asset retirement obligations	134
Changes in liabilities	
Accounts payable	3,510
Retainage payable	(30)
Due to other funds	(7)
Unearned revenue	(141)
Wages and benefits payable	(332)
Compensated absences	448
Other postemployment benefits	590
Other liabilities	(752)
Changes in deferred inflows of resources	
Deferred inflows on leases	(41)
Deferred inflows on other postemployment benefits	526
Deferred inflows on pension	(35,441)
Total adjustments	150,400
NET CASH PROVIDED BY OPERATING ACTIVITIES	$ 367,515

NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES

Water Quality issued commercial paper in 2022 to refund debt issued from 2012 to 2013. The $23.2 million of commercial paper proceeds were placed in escrow for the defeasance of $22.6 million of outstanding bond principal and $600 thousand of interest.

See accompanying notes.

Note 1 – Operations and Accounting Policies

Summary of operations – The King County Water Quality Enterprise Fund (Water Quality) is an enterprise fund operated by the King County Department of Natural Resources and Parks in accordance with Chapter 35.58 of the Revised Code of Washington (RCW) to provide sewage treatment and water pollution abatement services to the urbanized areas of King County, Washington (the County).

Water Quality is an integral part of the County reporting entity and is included, as an enterprise fund, in the County's annual comprehensive financial report (ACFR). As an enterprise fund, Water Quality is funded and operated separately from other operations of the County. Revenues, bond proceeds, and grants are restricted by purpose. Accordingly, Water Quality maintains separate accounting records and issues stand-alone financial statements.

Water Quality has long-term sewage disposal agreements with the cities and sewer districts that operate sewage collection systems within its service area. The monthly sewage disposal charge to the contracting cities and districts is based on Water Quality's estimated annual monetary requirements, including operating costs and debt service. Revenues from Water Quality's largest customer, the City of Seattle (Seattle Public Utilities), represent approximately 38.0 percent of total sewage disposal fees in 2022.

Water Quality purchases goods and services from other County agencies, including reimbursement of the County's general fund for a share of general government. Expenses incurred in doing business with other County agencies amounted to $40.1 million in 2022.

Significant accounting policies – Water Quality is accounted for using the flow of economic resources measurement focus similar to that of a private enterprise organized for profit. Water Quality's financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental units using the accrual basis of accounting. Under this method, revenues are recorded when earned, and expenses are recorded at the time liabilities are incurred. Water Quality, regardless of the timing of cash flows, applies all applicable Governmental Accounting Standards Board (GASB) pronouncements.

a. **Cash and cash equivalents** – Water Quality considers as cash and cash equivalents demand deposits, cash with escrow agent, and all balances held with the King County Treasurer in the King County Investment Pool (the Pool) except the amounts invested through the Pool-Plus program. Water Quality records its investments in the Pool-Plus program at fair value. Unrealized gain or loss on Water Quality's proportionate share of the pooled investments and individual investments is reported as a component of investment earnings.

b. **Receivables and allowance for doubtful accounts** – Receivables include charges for services rendered by Water Quality or intergovernmental grants. All unbilled service receivables are recorded at year-end. The provisions for estimated uncollectible receivables are reviewed at year-end. Water Quality has the ability to place a lien on properties owned by customers for uncollected capacity charges and no allowance for doubtful accounts was recorded as of December 31, 2022. Water Quality reported notes receivable of $5.2 million at 2022 year-end for capacity charge account balances over 365 days old.

c. **Due from and to other funds** – Due from and to other funds consists of current receivables and payables from or to other funds within the County. They typically arise from interfund goods and service transactions and reimbursements.

Interfund loans receivable and payable or advances from and to other funds represent authorized short-term and long-term, respectively, lending and borrowing arrangements within the County.

d. **Inventory of supplies** – Inventory is recorded at the lower of cost or market using the weighted-average cost method. Materials and supplies are expensed as consumed. Inventory is written off in the year that it is determined obsolete.

e. **Restricted assets** – In accordance with Water Quality's bond resolutions, state law, King County codes, or other agreements, separate restricted assets have been established. These assets are restricted for specific purposes, including bond and state loan reserves.

f. **Capital assets** – Capital assets are stated at cost, less accumulated depreciation and amortization. Water Quality's capitalization threshold is: equipment at $5 thousand; software and intangible assets at $500 thousand, and buildings and improvements at $100 thousand. Provision for depreciation and amortization is made on a straight-line basis over the estimated useful lives of Water Quality's capital assets as follows:

Description	Estimated Useful Life
Buildings and improvements other than buildings	10–75 years
Cars, vans, and trucks	5–10 years
Data processing equipment	3–10 years
Heavy equipment	5–25 years
Sewer lines	20–50 years
Shop equipment	5–20 years
Software	3–10 years
Intangibles	35 years

Repairs and maintenance are expensed as incurred; major renewals, replacements, and betterments are capitalized.

Water Quality annually reviews long-lived assets for impairment to determine whether any events or circumstances indicate the carrying value of the assets may not be recoverable. No impairment was identified in 2022.

g. **Leases** – Water Quality is a lessee for various noncancellable leases of land, right-of-way and easements, and equipment. At lease commencement, Water Quality recognizes a lease liability and an intangible right-to-use asset on the Statement of Net Position. The lease liability is initially measured at the present value of payments expected to be made during the lease term. The future lease payments are discounted using the interest rate implicit in the lease contract. If the interest rate is not available, Water Quality generally uses the County's incremental borrowing rate for lease terms (including options to extend which are likely to be exercised) of less than 15 years and the US Treasury Securities-State and Local Government Series (SLGS) rate for leases with terms of 15 years or more. Subsequently, the lease liability is reduced by the principal portion of lease payments made. The lease asset is initially measured at the amount of the lease liability adjusted for payments made at or before the lease commencement date, direct costs ancillary to placing the underlying asset in service, and lease incentives received. The lease asset is subsequently amortized on a straight-line basis over the shorter of the lease term or the useful life of the underlying asset. The lease term includes the noncancellable period of the lease. For leases with a maximum possible term of 12 months or less at commencement, an expense is recognized based on the provisions of the lease contract.

Lease payments included in the measurement of the lease liability are composed of fixed payments and purchase option prices that Water Quality is reasonably certain to exercise. In determining the lease term, Water Quality considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated). Water Quality 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.

Water Quality is a lessor for a noncancelable lease of land. At lease commencement, Water Quality recognizes a lease receivable and a deferred inflow of resources on the Statement of Net position. The lease receivable is initially measured at the present value of payments expected to be received during the lease term and subsequently reduced by the principal portion of lease payments received. The deferred inflow of resources is initially measured as the amount of the lease receivable adjusted for lease payments received at or before the lease commencement date, lease incentives paid, or other payments made on behalf of the lessee at or before the lease commencement date. The deferred inflow of resources is subsequently amortized on a straight-line basis over the lease term. The lease term includes the noncancellable period of the lease. For leases with a maximum possible term of 12 months or less at commencement, revenue is recognized based on the provisions of the lease contract.

Lease receipts included in the measurement of the lease receivable are composed of fixed payments from the lessee. Water Quality monitors changes in circumstances that would require a remeasurement of its lease and will remeasure the lease receivable and deferred inflows of resources if certain changes occur that are expected to significantly affect the amount of the lease receivable.

h. **Compensated absences** – Employees earn vacation based upon their date of hire and years of service. Employees hired prior to January 1, 2018, have a maximum vacation accrual of 480 hours, while those hired January 1, 2018, or after have a maximum vacation accrual of 320 hours unless the employee's collective bargaining unit agreement specifies a different maximum. Unused vacation at retirement or normal termination is considered vested and payable to the employee, up to the employee's maximum accrual. Employees also earn up to 12 days of sick leave per year and may accumulate sick leave balances without limit. If the employee is leaving their employment due to death or retirement, they are paid for 35 percent of the value of unused sick leave with no maximum. Vacation pay, a portion of sick leave liabilities, and compensatory time in lieu of overtime pay, including payroll taxes, are accrued.

i. **Rebatable arbitrage** – Water Quality's tax-exempt debt is subject to arbitrage restrictions as defined by the Internal Revenue Code. Arbitrage occurs when the funds borrowed at tax-exempt rates of interest are invested in higher yielding taxable securities. These interest earnings in excess of interest expense must be remitted to the federal government except when spending exception rules are met. The liability is recognized during the period the excess interest is earned. Water Quality has no liability as of December 31, 2022.

j. **Deferred outflows and inflows of resources** – Deferred outflows of resources represent consumption of resources that is applicable to future reporting periods and deferred inflows of resources represent acquisition of resources that is applicable to future reporting periods. Deferred outflows of resources include deferred losses on refunding of bonds and certain amounts related to pension, postemployment benefits other than pensions (OPEB) and asset retirement obligations. Deferred inflows of resources include rate stabilization, deferred gains on refunding of bonds, and certain amounts related to a lease, pension and OPEB.

k. **Unearned revenues** – Unearned revenues are obligations of Water Quality to perform services or provide goods. This account offsets reported assets for revenues that have not met recognition requirements, including prepayments for capacity charges.

l. **Operating and nonoperating revenues and expenses** – Operating revenues result from exchange transactions of Water Quality's activities. Expenses associated with providing wastewater treatment services and operating Water Quality's treatment facilities are considered operating. Nonoperating revenues result from nonexchange transactions such as operating subsidies and investment earnings.

Water Quality provides water treatment services to cities and sewer districts and recognizes revenue when such service is provided. Additionally, the capacity charge revenue is generated from new connections to the sewer system. Both water treatment service and capacity charge rates are authorized by ordinances passed by the King County Council. Water treatment service and capacity charge revenues are recorded through cycle billings rendered to customers monthly. Water Quality accrues and records unbilled water service and capacity charge revenues in the financial statements for services provided from the date of the last billing to year-end.

m. **Debt-related amortization** – Bond premiums, discounts and refunding losses and gains are amortized over the life of the bonds using the outstanding principal balance method.

n. **Capital grant revenues** – Pursuant to GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, grant revenues for capital purposes are reported separately from operating and nonoperating revenues as capital grant revenues.

o. **Net position** – Resources set aside for debt service, capital projects and other obligations, net of related liabilities and deferred outflows/inflows of resources, are classified as restricted net position on the statement of net position as their use is limited by externally imposed restrictions. For pension plans that have a net pension asset, the restricted net position is calculated with the net pension asset adjusted for related deferred outflows/inflows of resources. Net investment in capital assets is reported as a separate component of net position and consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any bonds, notes, or other liabilities attributable to the acquisition, construction, or improvement of those assets. Additionally, deferred outflows/inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are included in net investment in capital assets. Any net position not subject to classification as restricted or invested in capital assets is reported as unrestricted.

p. **Net position flow assumption** – Sometimes Water Quality will fund outlays for a particular purpose from both restricted (e.g., restricted bond or grant proceeds) and unrestricted resources. In order to calculate the amounts to be reported as restricted net position and unrestricted net position, a flow assumption must be made about the order in which the resources are considered to be applied. It's Water Quality's policy to consider restricted net position to have been depleted before unrestricted net position is applied.

q. **Use of estimates** – The preparation of the financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements. Specific estimates have been made in the areas of allowance for uncollectible accounts, environmental remediation costs, useful lives of capital assets, asset retirement obligations, pension and other postemployment benefits liabilities and related deferred outflows and inflows of resources, and future interest rates. Actual results could differ from these estimates.

New accounting standards – Effective for fiscal year 2022 reporting, Water Quality implemented the following new GASB standards:

GASB Statement No. 87, *Leases*. This standard establishes a uniform approach for lease accounting based on the principle that leases are financings of the right to use an asset. This statement applies to contracts that convey the right to use a non-financial asset, including buildings, land, and equipment, in an exchange or exchange-like transaction for a term exceeding 12 months. Lessees are required to recognize a lease liability and an intangible right-to-use asset, and lessors are required to recognize a lease receivable and a deferred inflow of resources. Water Quality implemented the statement with no material impact on its financial statements.

GASB Statement No. 91, *Conduit Debt Obligations.* This statement is aimed to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice. This statement did not have an impact on Water Quality's financial statements.

GASB Statement No. 92, *Omnibus 2020*. The purpose of this statement is to enhance the comparability in accounting and financial reporting and improve the consistency of authoritative literature by focusing on practice issues that have been identified during implementation and application of certain GASB statements. This statement did not have any impact on Water Quality's financial statements.

GASB Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue code Section 457 Deferred Compensation Plan-An Amendment of GASB Statements No.14 and No.84, and a Supersession of GASB Statement No.32*. This statement looks to increase consistency and comparability related to the reporting of fiduciary component units that are established as Internal Revenue Code (IRC) Section 457 deferred compensation plans (Section 457 plans) that meet the definition of a pension plan or other benefits of those plans. This statement did not have an impact on Water Quality's financial statements.

GASB Statement 99, *Omnibus 2022*. The purpose of this statement is to enhance the comparability in accounting and financial reporting and improve the consistency of authoritative literature by focusing on practice issues that have been identified during implementation and application of various GASB statements. This statement was issued in April 2022 and had multiple effective dates for various topics. The requirements related to extension of the use of London Inter-Bank Offered Rate (LIBOR), accounting for Supplemental Nutrition Assistance Program (SNAP) distributions, disclosures of nonmonetary transactions, pledges of future revenue by pledging governments, clarification of certain provisions in Statement 34, as amended, and terminology updates related to Statement 53 and Statement 63 are effective upon issuance, and they were adopted by Water Quality in 2022 with no impact on its financial statements.

Note 2 – Deposits and Investments in King County Investment Pool

The King County Treasurer is the custodian of Water Quality's cash. Water Quality's cash on deposit with the King County Treasurer is pooled with cash from other County funds and other jurisdictions and are either deposited in the County's bank account or invested by the County. The King County Investment Pool (the Pool) functions essentially as a demand deposit account where Water Quality receives an allocation of its proportionate share of pooled earnings as interest. Water Quality's equity share of the Pool's net assets is reported as cash and cash equivalents on the statement of net position and reflects the change in fair value of the corresponding investment securities. In 2022, Water Quality reported a net investment loss, which resulted from its proportionate share of unrealized loss due to the net decrease in fair value of the Pool's investments.

The Pool is administered by the King County Treasury Operations Section and is not registered with the Securities and Exchange Commission (SEC) as an investment company. Oversight is provided by the King County Executive Finance Committee (EFC), which serves the role of the County Finance Committee as defined in RCW 36.48.070.

The County has deposit and investment policies addressing risks that have the potential to result in losses of deposits and investments. The deposits that are not covered by the Federal Deposit Insurance Corporation (FDIC) are collateralized by the Public Deposit Protection Commission of the State of Washington (PDPC) at no less than fifty percent. Effective June 7, 2018, resolution 2018-1 adopted by Commission on June 1, 2018, allowed “all well capitalized public depositaries may collateralize uninsured public deposits at no less than fifty percent.” The PDPC is a statutory authority established under Chapter 39.58 RCW that governs public depositaries and provides that “all public funds deposited in public depositaries, including investment deposits and accrued interest thereon, shall be protected against loss, as provided in the chapter.” It constitutes a multiple financial institution collateral pool that can make pro rata assessments to all public depositaries within the state for their public deposits. PDPC protection is of the nature of collateral, not of insurance.

The custodial credit risk for deposits is the risk that Water Quality’s deposits may not be returned to it in the event of a bank failure. State statutes require that certificates of deposit be placed in qualified public depositaries in the State of Washington and total deposits cannot exceed the net worth of the financial institution. Those institutions not meeting 100 percent collateralization or the minimum credit rating requirements may receive deposits up to the FDIC or federally guaranteed amounts. The County’s diversification policy limits the maximum amount of investment in certificates of deposit to 25 percent of the total amount of the portfolio and five percent from a single issuer.

Assessing Water Quality’s risk exposure, Water Quality’s cash and cash equivalents balance of $634.8 million were fully invested in the Pool as of December 31, 2022. The County had demand deposits of $18.8 million as of December 31, 2022, of which $9.2 million was exposed to custodial credit risk as uninsured and uncollateralized.

The EFC adopted the Pool-Plus program which allows County agencies or junior taxing districts to invest funds beyond the maximum maturity limit established for the Pool. This policy provides an investment option that allows a participant in the Pool to combine a portfolio of individual long-term securities in the same fund that is invested in the Pool. The pooling of the long-term portfolio with the Pool provides the ability to invest at durations longer than the Pool while maintaining access to the liquidity of the Pool. The Pool-Plus program allows qualifying funds to invest over longer durations recognizing there are:
(1) potential risks such as increased price volatility and the possibility of selling securities before maturity to pay unexpected expenditures could result in a loss of principal; (2) benefits from reducing reinvestment risk which improves the predictability of future budget revenue; (3) and potential rewards such as increased earnings.

Water Quality participated in the Pool-Plus program starting in 2018 and reported individual investments at $14.1 million as of December 31, 2022, which comprises fair value of $14.0 million and interest accrual of $68 thousand on its investments. The following schedule shows the types of investments, the average interest rate, and the effective duration limits of the Pool-Plus program at December 31, 2022 (dollars in thousands):

	Fair Value	Principal	Average Interest Rate	Effective Duration (Yrs)
Investment type				
U.S. Treasury notes	$ 13,995	$ 15,271	2.30%	3.910

The U.S. Treasury notes are valued using quoted prices in active markets. The U.S. Treasury notes with AA credit rating are backed by full faith and credit of the U.S. government.

Credit risk – **investments** – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. As of December 31, 2022, the Pool was not rated by a Nationally Recognized Statistical Rating Organization (NRSRO). In compliance with state statutes, Pool policies authorize investments in U.S. Treasury securities, U.S. federal agency securities and mortgage-backed securities, municipal securities, and corporate notes (rated at least "A" by two NRSROs), commercial paper (rated at least the equivalent of "A-1" by two NRSROs), certificates of deposit issued by qualified public depositories, repurchase agreements, and the Local Government Investment Pool managed by the Washington State Treasurer's office.

The Pool's policies limit the maximum amount that can be invested in various securities. At 2022 year-end the Pool was in compliance with these policies. The Pool's actual composition, as of December 31, 2022, is as follows (in thousands):

	Total	Allocation Percentage
Investment type		
Repurchase agreements	$ 193,000	2.25%
Commercial paper	840,165	9.81%
U.S. Agency discount notes	243,875	2.85%
Corporate notes	154,425	1.80%
U.S. Treasury notes	3,267,343	38.15%
U.S. Agency notes	1,405,530	16.41%
U.S. Agency collateralized mortgage obligations	1,364	0.02%
Supranational coupon notes	1,832,448	21.39%
State treasurer's investment pool	626,804	7.32%
	$ 8,564,954	100.00%

Custodial credit risk – investments – Custodial credit risk is the risk that in the event of the failure of the counterparty, the County will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. County policy mandates that all security transactions, including repurchase agreements, are settled "delivery versus payment (DVP)." This means that payment is made simultaneously with the receipt of the security. These securities are delivered to the County's safekeeping bank or its tri-party custodian banks. Exempt from the DVP policy are Certificates of Deposits (CDs) and funds placed with the State of Washington Local Government Investment Pool.

Concentration of credit risk – investments – Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issue. At 2022 year-end, the Pool had concentrations greater than 5.0 percent of the total investment pool portfolio in the following issuers: Inter-American Development Bank, 8.5 percent; Asian Development Bank, 6.6 percent; Federal Home Loan Banks, 6.4 percent; Federal Home Loan Mortgage Corporation, 6.0 percent.

Interest rate risk – investments – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Through its investment policy, the County manages its exposure to fair value losses arising from increasing interest rates by setting maturity and effective duration limits for the Pool. The policy limit for the Pool's maximum effective duration is 1.5 years, and 40 percent of the Pool's total value in securities must have a maturity of 12 months or fewer. Securities in the portfolio cannot have an average life greater than five years at purchase. The combined effective duration of the liquidity and core portfolios was 0.993 years at December 31, 2022.

All securities are reported at fair value. Fair value reports are prepared monthly and distributed to all Pool participants. The Pool values participants' shares using an amortized cost basis. Monthly income is distributed to participants based on their relative participation during the period.

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

The following is a summary of inputs in valuing the County's investments as of December 31, 2022 (in thousands):

KING COUNTY INVESTMENT POOL

		Fair Value Measurement Using		
Investments by Fair Value Level	Fair Value 12/31/2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Commercial paper	$ 840,165	$ -	$ 840,165	$ -
U.S. agency discount notes	243,875	243,875	-	-
Corporate notes	154,425	-	154,425	-
U.S. treasury notes	3,267,343	3,267,343	-	-
U.S. agency notes	1,405,530	-	1,405,530	-
U.S. agency collateralized mortgage obligations	1,364	-	1,364	-
Supranational coupon notes	1,832,448	-	1,832,448	-
Subtotal	7,745,150	$ 3,511,218	$ 4,233,932	$ -
Investments Measured at Amortized Cost (Not Subject to Fair Value Hierarchy)				
Repurchase agreements	193,000			
State treasurer's investment pool	626,804			
Subtotal	819,804			
Total investments in Investment Pool	$ 8,564,954			

U.S. Treasury notes are valued using quoted prices in active markets and classified in Level 1 of the fair value hierarchy.

Commercial Paper, U.S. Agency Discount Notes, Corporate Notes, U.S. Agency Notes, U.S. Agency Collateralized Mortgage Obligations and Supranational Coupon Notes are valued using standard inputs including benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, and reference data including market research publications. Interactive Data also monitors market indicators, industry and economic events and corroborating market data and are classified in Level 2 of the fair value hierarchy.

State Treasurer's Investment Pool and Repurchase Agreement are overnight securities and are recorded at amortized cost.

Note 3 –Restricted Assets

A significant portion of Water Quality's assets are restricted to use by legal and contractual provisions and by fiscal management policy. Restricted assets comprise cash and cash equivalents of $172.4 million, investments of $14.1 million, and net pension asset of $22.7 million at December 31, 2022, to comply with bond covenants and other requirements.

Liability amounts payable from restricted assets primarily consist of escrow and in-house retainage payables and a rental deposit. These amounted to $1.0 million at December 31, 2022. The details of cash and cash equivalents and restricted assets as of December 31, 2022, are as follows (in thousands):

	2022
Unrestricted cash and cash equivalents	
Operating funds	$ 42,090
Construction funds	185,038
Bond funds	119,179
Unallocated insurance recoveries	78,819
Policy reserves	37,243
Total unrestricted cash and cash equivalents	462,369
Restricted cash and cash equivalents	
Bond reserves	114,700
SRF loan reserves	981
Bond proceeds committed to construction	9,457
Retainage and deposits	1,026
Rate stabilization reserve	46,250
Total restricted cash and cash equivalents	172,414
Total cash and cash equivalents	634,783
Restricted investments	
Bond reserves	14,064
Restricted net pension asset	22,657
Total restricted assets - cash and cash equivalents, investments, and other assets	$ 209,135

Note 4 – Risk Management

Water Quality is exposed to a wide range of risks of loss, including those related to tort; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters.

Water Quality participates in three County internal service funds to account for and finance its (1) property/casualty, (2) workers' compensation, and (3) employee medical and dental benefits, through self-insurance programs. The County contracts with a plan administrator to process medical and dental claims. County fund/claims managers, together with the Civil Division of the King County Prosecuting Attorney's Office, are responsible for processing all tort and workers' compensation claims.

Water Quality claims paid by the Insurance Fund of King County were about one thousand during 2022. In the past three years there was no occurrence that resulted in payment in excess of the self-insured retention of $6.5 million.

Claims settlements and loss expenses are accrued in the three internal service funds for the estimated settlement value of both reported and unreported claims. These funds are responsible for collecting interfund premiums from insured funds and departments, for paying claim settlements, and for purchasing certain policies. The County's internal service funds assess premiums attributable to Water Quality on the basis of claims experience, actuarial evaluation of future claims risk, and adequacy of available reserves. Premiums are recorded as an expense in the year paid or accrued.

Water Quality retains all risk associated with environmental claims.

Note 5 – Debt and Other Liabilities

Short-Term Debt

Limited tax general obligation notes (commercial paper) – To finance certain projects or refund outstanding and future bonds of the County's sewer system, the County was authorized in 2020 to utilize a commercial paper program funded by Multi-Modal Limited Tax General Obligation Notes (Payable from Sewer Revenues) up to an aggregate principal amount of $250.0 million outstanding at any time. The authorization expires on December 15, 2050. The commercial paper can have maturities ranging between one and 270 days. As of December 31, 2022, the commercial paper outstanding was $151.2 million. The following table summarizes changes in short-term notes payable for the year ended December 31, 2022 (in thousands):

	Balance January 1, 2022	Additions	Reductions	Balance December 31, 2022
Commercial paper	$ 155,910	$ 62,275	$ (66,985)	$ 151,200

Long-term Debt and Other Liabilities

Sewer revenue bonds – As of December 31, 2022, bonds outstanding include $2,431.0 million of serial and term bonds maturing from January 1, 2023, through January 1, 2052, bearing interest at stated rates of 0.2 percent to 5.0 percent per annum.

On June 13, 2022, the County issued $8.2 million in commercial paper notes to refund $8.2 million of Sewer Revenue and Refunding Bonds, Series 2012C, to reduce future debt service. Proceeds from this issuance were held in a bond redemption account until their payment date of July 1, 2022.

On December 2, 2022, the County issued commercial paper notes to purchase State and Local Government Securities for the refunding of $22.7 million of Sewer Revenue Refunding Bonds, Series 2013A. A total of $23.2 million was placed in escrow to redeem the bonds at their earliest redemption dates. Funding for the interest portion of escrow came from operations. The most significant portion of this transaction's cost savings comes from replacing the majority 5.0 percent coupon issuance with lower interest commercial paper.

Bond issues provide funding for Water Quality's construction plan. Certain serial bonds may not be redeemed prior to maturity; other bonds may be redeemed after the lapse of specific periods of time. Amounts from the sewer revenue bond fund may be used to purchase term bonds prior to maturity.

The following table summarizes Water Quality's revenue bonds (in thousands):

	Final Maturity	Interest Rates	Original Issue Amount	Outstanding at December 31, 2022
2013A Refunding	1/1/35	2.00-5.00%	$ 122,895	$ 4,950
2013B Revenue and Refunding	1/1/44	2.00-5.00%	74,930	42,260
2014A Refunding	1/1/47	5.00%	75,000	75,000
2014B Refunding	7/1/35	1.00-5.00%	192,460	146,455
2015A Refunding	7/1/47	3.00-5.00%	474,025	253,745
2015B Refunding	1/1/46	4.00-5.00%	93,345	60,040
2016A Refunding	7/1/41	4.00-5.00%	281,535	257,055
2016B Refunding	7/1/49	4.00-5.00%	499,655	436,310
2017A Refunding	7/1/49	5.00%	149,485	117,865
2018B Sewer Revenue	7/1/32	5.00%	124,455	111,965
2020A Refunding	1/1/52	1.63-5.00%	179,530	177,440
2020B Refunding	1/1/40	0.27-2.48%	186,745	181,400
2020A Refunding Junior Lien Variable	1/1/32	(variable)	100,295	100,295
2020B Refunding Junior Lien Variable	1/1/42	(variable)	100,295	100,295
2021A Refunding	7/1/47	0.19-2.84%	231,200	225,955
2021A Refunding Junior Lien Variable (FRN)	1/1/40	(variable)	140,000	140,000
			$ 3,025,850	$ 2,431,030

General obligation bonds – As of December 31, 2022, bonds outstanding include $827.2 million of serial and term bonds maturing January 1, 2023, through January 1, 2046, bearing interest at stated rates of 0.1 percent to 5.3 percent per annum.

Certain serial bonds cannot be redeemed prior to maturity; other bonds may be redeemed after the lapse of specific periods of time.

The following table summarizes Water Quality's general obligation bonds (in thousands):

	Final Maturity	Interest Rates	Original Issue Amount	Outstanding at December 31, 2022
2008 LTGO	1/1/34	5.25%	$ 236,950	$ 10,760
2015A LTGO	7/1/38	2.00-5.00%	247,825	108,680
2017A LTGO	7/1/33	4.00-5.00%	154,560	131,970
2019A LTGO	1/1/38	5.00%	101,035	101,035
2019A Multi-Modal LTGO	1/1/46	(variable)	100,000	100,000
2019B Multi-Modal LTGO	1/1/46	(variable)	48,095	48,095
2021A LTGO	1/1/38	2.00-5.00%	239,585	234,975
2021B LTGO	7/1/36	0.14-2.24%	94,510	91,640
			$ 1,222,560	$ 827,155

The Sewer Revenue Bonds are Parity Bonds, secured solely by a pledge of and lien on revenue of the system subordinate only to the payment of operating and maintenance expenses of the County's sewer system. The LTGO (Sewer) Bonds are Parity Lien Obligations, which are limited tax general obligation bonds of the County that are additionally secured by a pledge of and lien on revenue of the system. The lien on the revenue of the system that secures the Parity Lien Obligations is subordinate to the lien that secures the Parity Bonds.

Prior year refunded and defeasance of debt – As of December 31, 2022, Water Quality had outstanding refunded and defeased general obligation bonds and sewer revenue bonds in the amount of $475.6 million, of which $452.9 million were for bonds defeased prior to 2022. Water Quality defeased these bonds by placing proceeds of the refunding bonds and/or existing cash from Water Quality in irrevocable trust accounts to provide for future debt service payments on the defeased bonds. The liability for the defeased bonds has been removed from Water Quality's financial statements.

State loans – Water Quality has received loans from the Washington State Department of Ecology under the Water Pollution Control State Revolving Fund Loan Program and the Washington Public Works Trust Fund. The loans require either semi-annual or annual payments of principal and interest from 2023 through 2055 and bear interest at stated rates from zero percent to 2.7 percent. As of December 31, 2022, the balance due on all state loans is $140.7 million and the unused portion of state loan agreements is $24.6 million. Water Quality maintains separate cash reserves of $981 thousand as of December 31, 2022. These reserves are treated as restricted, being required under the Revolving Fund Loan Program.

State loans are secured by a subordinate lien on the net revenues of the system. Events of default under the loan agreements with the Department of Ecology include nonpayment of amounts due, failure to commence the project for which the loan was granted and unjustified failure to perform loan agreement obligations. Remedies include suspending any undisbursed loan proceeds and acceleration of the outstanding balance, provided that the loan is not subject to acceleration if any sewer revenue bonds are outstanding. Any state funds owed to the County may also be withheld. Events of default under the loan agreements with the Public Works Trust Fund include nonpayment of amounts due and failure to use loan proceeds for permitted activities. Remedies include withholding of any undisbursed loan proceeds, assessment of additional interest and notification to creditors.

Water Infrastructure Finance and Innovation Act (WIFIA) bonds – Water Quality has two WIFIA bonds, totaling $231.3 million, with the U.S. Environmental Protection Agency. No draws have been taken on these bonds as of December 31, 2022. The WIFIA bonds, after draws are made, will be secured by a pledge of revenue of the sewer system subject to payment of all operating and maintenance expenses of the sewer system and is entitled to all of the benefits of a Parity Bond.

At December 31, 2022, the required principal and interest payments for all classes of long-term debt are as follows (in thousands):

	Revenue Bonds		General Obligation Bonds		State Loans		
Year(s) Beginning	Principal	Interest	Principal	Interest	Principal	Interest	Total
January 1, 2023	$ 66,290	$ 85,393	$ 40,795	$ 35,536	$ 5,189	$ 2,874	$ 236,077
January 1, 2024	66,290	83,250	31,235	34,032	5,776	2,787	223,370
January 1, 2025	60,060	80,933	40,790	32,534	3,963	2,708	220,988
January 1, 2026	61,065	78,916	50,170	30,587	5,881	2,625	229,244
January 1, 2027	70,460	76,748	49,760	28,455	5,061	2,528	233,012
January 1, 2028-2032	495,655	340,314	276,535	106,848	24,682	11,240	1,255,274
January 1, 2033-2037	495,620	256,886	159,855	59,967	25,663	8,782	1,006,773
January 1, 2038-2042	680,315	157,637	29,920	41,019	18,810	6,386	934,087
January 1, 2043-2047	353,120	58,317	148,095	31,989	19,563	4,271	615,355
January 1, 2048-2052	82,155	7,246	-	-	21,911	1,906	113,218
January 1, 2053-2055	-	-	-	-	4,227	123	4,350
	$ 2,431,030	$ 1,225,640	$ 827,155	$ 400,967	$ 140,726	$ 46,230	$ 5,071,748

Variable rate general obligation and revenue bonds – The County's $140.0 million in Floating Rate Notes (FRN) with an interest rate set at a fixed spread, plus 23 basis points, over the Securities Industry and Financial Markets Association (SIFMA) Index have a 5-year mandatory tender date on January 1, 2027.

The 2019 Series A and Series B Multi-Modal Variable Rate Bonds in the amount of $148.1 million are supported by a standby bond purchase agreement that expires on June 26, 2024. The agreements related to Series 2019A and B have acceleration clauses (declaring outstanding balances immediately due).

The Mandatory Put Bonds, Series 2020A and B, in the amount of $200.6 million do not require liquidity facilities. Series 2020A has a mandatory tender date of January 1, 2024 and Series 2020B has a mandatory tender date of January 1, 2026.

The future annualized interest payments for the variable rate bonds are based on an interest rate of 3.5 percent, which represents 70 percent of the long-term interest rate of 5.0 percent assumed by the County for financial planning purposes. Interest payments on the Junior Lien Variable Sewer Revenue Bonds, Series 2020A and Series 2020B, are based on the stated interest rates of 0.6 percent, and 0.9 percent, respectively, that will be paid through their mandatory purchase dates.

Financial policy reserves – In addition to bond reserves related to Sewer Revenue Bonds, Water Quality maintains liquidity and asset management reserves totaling $37.2 million at December 31, 2022.

Compliance with bond resolutions – With respect to the year ended December 31, 2022, Water Quality complied with all financial covenants stipulated by its bond resolutions.

Changes in long-term liabilities – Long-term liability activity for the year ended December 31, 2022 was as follows (in thousands):

	Balance January 1, 2022*	Additions	Reductions	Balance December 31, 2022	Due Within One Year
Bonds payable	$ 3,422,405	$ -	$ (164,220)	$ 3,258,185	$ 107,085
Bond premiums and discounts	281,317	-	(32,257)	249,060	-
Total bonds payable	3,703,722	-	(196,477)	3,507,245	107,085
Direct borrowings-state loans	101,198	44,872	(5,344)	140,726	5,189
Compensated absences	13,192	12,402	(11,954)	13,640	600
Other post-employment benefits	1,851	748	(158)	2,441	167
Lease payable	1,642	2,152	(2,365)	1,429	226
Environmental remediation	54,955	3,492	(4,388)	54,059	5,708
Asset retirement obligations	1,350	135	-	1,485	-
Other liabilities	79,536	-	(140)	79,396	23
Total long-term liabilities	$ 3,957,446	$ 63,801	$ (220,826)	$ 3,800,421	$ 118,998

* Beginning balances are adjusted due to the implementation of GASB Statement No. 87, *Leases* .

Note 6 – Asset Retirement Obligations

In 2022, Water Quality reported the ARO of $1.5 million in accordance with GASB Statement No. 83, *Certain Asset Retirement Obligations*. The liability is measured at its current value and based on professional judgment, experience, and historical cost data.

Water Quality's ARO relates to the disposition of underground storage tanks (USTs) due to applicable regulations and requirements. The estimated remaining useful life of the USTs ranges from one to seven years.

The liability could change over time as new information becomes available as a result of changes in technology, legal or regulatory requirements, and types of equipment, facilities or services that will be used to meet the obligation to dispose of the USTs.

Note 7 – Changes in Capital Assets

Changes in capital assets for the year ended December 31, 2022, are shown in the following table (in thousands):

	Balance January 1, 2022*	Increases	Decreases	Balance December 31, 2022
Land	$ 248,848	$ -	$ (14)	$ 248,834
Easements	16,032	166	-	16,198
Artwork	1,023	-	-	1,023
Construction work in progress	619,361	250,105	(375,276)	494,190
Total nondepreciable assets	885,264	250,271	(375,290)	760,245
Buildings	2,045,344	130,230	(2,977)	2,172,597
Improvements other than buildings	150,187	10,572	(29)	160,730
Right of way	7,635	-	-	7,635
Infrastructure	2,510,093	91,503	(396)	2,601,200
Equipment	1,189,801	109,362	(6,816)	1,292,347
Software development	37,286	423	-	37,709
Total depreciable assets	5,940,346	342,090	(10,218)	6,272,218
Accumulated depreciation and amortization				
Building	(962,977)	(54,566)	1,971	(1,015,572)
Improvements other than building	(54,199)	(6,056)	12	(60,243)
Right of way	(2,236)	(218)	-	(2,454)
Infrastructure	(821,273)	(52,390)	305	(873,358)
Equipment	(869,920)	(57,018)	6,345	(920,593)
Software development	(36,866)	(443)	-	(37,309)
Total depreciation and amortization	(2,747,471)	(170,691)	8,633	(2,909,529)
Depreciable assets - net	3,192,875	171,399	(1,585)	3,362,689
Lease assets - net (see Note 8 for detail)	1,642	2,152	(1,128)	2,666
Total capital assets - net	$ 4,079,781	$ 423,822	$ (378,003)	$ 4,125,600

* Beginning balances are adjusted due to the implementation of GASB Statement No. 87, *Leases* .

Note 8 – Leases

Lessee activity – Water Quality leases land, equipment, and other assets under a variety of long-term, non-cancelable leases agreements. In accordance with GASB Statement No. 87, *Leases*, Water Quality records right-to-use assets and lease liabilities based on the present value of expected payments over the lease term of the respective leases. The expected lease payments are discounted using the interest rate implicit in the lease contract. If the interest rate is not available, Water Quality generally uses the County’s incremental borrowing rate for lease terms (including options to extend which are likely to be exercised) of less than 15 years and the SLGS rate for leases with terms of 15 years or more.

The following is a summary of Water Quality's right-to-use lease asset activity for the year ended December 31, 2022 (in thousands):

	Balance January 1, 2022	Increases	Decreases	Balance December 31, 2022
Furniture, Machinery, and Equipment	$ 129	$ 22	$ -	$ 151
Land	8	-	-	8
Rights-of-way and Easements	1,505	2,130	-	3,635
Right-to-use assets, being amortized:	1,642	2,152	-	3,794
Furniture, Machinery, and Equipment	-	(52)	-	(52)
Land	-	(4)	-	(4)
Rights-of-way and Easements	-	(1,072)	-	(1,072)
Total accumulated amortization	-	(1,128)	-	(1,128)
Total right-to-use assets, net	$ 1,642	$ 1,024	$ -	$ 2,666

At December 31, 2022, future annual lease principal and interest payments are as follows (in thousands):

	Right-to-Use Lease Agreements	
Year(s) Beginning	Principal	Interest
January 1, 2023	$ 226	$ 8
January 1, 2024	205	6
January 1, 2025	194	5
January 1, 2026	184	4
January 1, 2027	181	3
January 1, 2028-2032	439	3
	$ 1,429	$ 29

As of December 31, 2022, Water Quality has one lease for a building, parking and storage rental that has not yet commenced with lease payments due on an undiscounted basis of $47.2 million. This lease will commence in 2023 with a lease term of 20 years.

Lessor activity – Water Quality leases land to an American wireless network operator. Water Quality records lease receivable and deferred inflows of resources based on the present value of expected receipts over the term of the lease. The expected receipts are discounted using the County's incremental borrowing rate.

During 2022, the amount recognized as lease revenue and lease interest was $41 thousand and $4 thousand, respectively.

Note 9 – Environmental Remediation

Water Quality operations are subject to rules and regulations enacted by the Washington State Department of Ecology (DOE) and the U.S. Environmental Protection Agency (EPA).

Water Quality follows GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (GASB 49), which mandates the disclosure of "obligations to address current or potential detrimental effects of existing pollution by participating in pollution remediation activities." GASB 49 establishes five events, any one of which obligates Water Quality to record a liability for pollution remediation expenditures. Liabilities are related to ongoing projects, which include the sediment management of aquatic habitats along Elliott Bay and the clean-up of certain sites along the Lower Duwamish Waterway (LDW). Environmental remediation costs are capitalized and amortized over 30 years.

The Sediment Management Project was obligated when the Metropolitan King County Council approved the pollution remediation program. The LDW project became a Water Quality obligation when King County entered into an Administrative Order on Consent (AOC) with the DOE and EPA. This AOC also includes The Boeing Company, the City of Seattle and the Port of Seattle as parties conduct the studies on which to base the cleanup decision. Each party has agreed to pay one fourth of the costs under the AOC.

Both projects may result in additional cleanup efforts as a result of future regulatory orders. These potential cleanup liabilities cannot be currently estimated. Ongoing, regulatory action has identified and may identify other Potentially Responsible Parties (PRP) for the LDW cleanup.

There are no estimated recoveries at this time that will reduce the amount of Water Quality's pollution remediation obligations. The total environmental remediation liability at December 31, 2022, stands at $54.1 million.

The pollution remediation obligation is an estimate and subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations.

The methodology for estimating liabilities continues to be based on Water Quality engineering analysis, program experience and cost estimates for the remediation activities scheduled to be undertaken in future years as programmed under Water Quality's Regional Wastewater Services Plan. Certain costs were developed by consulting engineers. Costs were estimated using the expected cash flow method set out by GASB 49. For the LDW project, a weighted average method is used to calculate the liability. The Sediment Management Plan does not employ weighted average cost estimation because the remaining work is well-defined and negates the utility of multiple estimates. The cost estimates continue to be re-measured as succeeding benchmarks are reached or when cost assumptions are modified. All pollution remediation costs are being deferred and amortized over 30 years as permitted by regulatory accounting standards (see Note 10 – Regulatory Assets and Credits).

Note 10 – Regulatory Assets and Credits

The King County Council has taken various regulatory actions resulting in differences between the recognition of revenues for rate-making purposes and their treatment under generally accepted accounting principles for nonregulated entities. Changes to these balances and their inclusion in rates may occur only at the direction of the Council.

Rate stabilization – In 2005, the Council established a Rate Stabilization Reserve. This action created a deferred inflow of resource which deferred operating revenue to be set aside in a reserve and recognized in subsequent years to maintain stable sewer rates. The reserve was $46.3 million in 2022.

Pollution remediation – In 2006, the Council approved the application of regulatory accounting to treat pollution remediation obligations as regulatory assets to allow for cost recovery through future rate increases. The portion of regulatory asset costs that have been accrued is being amortized over a recovery period of 30 years. Water Quality had $81.4 million in pollution remediation regulatory assets, net of amortization, as of December 31, 2022.

Rainwise program – In 2013, the Council approved the application of regulatory accounting to treat program payments to Rainwise participants as regulatory assets to allow for cost recovery through future rate increases. The portion of regulatory asset costs that have been accrued is being amortized over a recovery period of seven years. Water Quality had $1.3 million in Rainwise regulatory assets, net of amortization, as of December 31, 2022.

Strategic planning costs – In 2016, the Council approved the application of regulatory accounting to treat strategic planning costs as regulatory assets to allow for cost recovery through future rate increases. The portion of regulatory asset costs that have been accrued is amortized over a 7 to 10-year recovery period. Water Quality had $85.8 million in strategic planning regulatory assets, net of amortization, as of December 31, 2022.

Note 11 – Employee Benefit Plans

In accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, the County elected to use June 30, 2022, as the measurement date for reporting net pension asset/liability at 2022 year-end.

The following table represents the aggregate pension amounts allocated to Water Quality for all pension plans subject to the requirements of GASB Statement No. 68 for the year 2022 (in thousands):

	Aggregate Pension Amounts—All Plans
Net pension asset	$ (22,657)
Deferred outflows of resources	21,989
Deferred inflows of resources	21,192
Pension expense (benefit)	(4,829)

Pension plans –Substantially all full-time and qualifying part-time employees of Water Quality participate in Public Employees' Retirement System (PERS) Plan 2 or Plan 3.

PERS is administered by the Washington State Department of Retirement Systems (DRS) under cost-sharing, multiple-employer public employee defined benefit and defined contribution retirement plans. The state Legislature establishes, and amends, laws pertaining to the creation and administration of all statewide public retirement systems.

The DRS, a department within the primary government of the State of Washington, issues a publicly available annual comprehensive financial report that includes financial statements and required supplementary information for each plan.

The DRS ACFR may be downloaded from the DRS website at www.drs.wa.gov.

Public Employees Retirement System – PERS members include elected officials; state employees; employees of the Supreme, Appeals and Superior Courts; employees of the legislature; employees of district and municipal courts; employees of local governments; and higher education employees not participating in higher education retirement programs. PERS is comprised of three separate pension plans for membership purposes. PERS Plans 1 and 2 are defined benefit plans, and PERS Plan 3 is a defined benefit plan with a defined contribution component.

PERS Plan 1 provides retirement, disability, and death benefits. Retirement benefits are determined as two percent of the member's average final compensation (AFC) times the member's years of service. The AFC is the average of the member's 24 highest consecutive service months. Members are eligible for retirement from active status at any age with at least 30 years of service, at age 55 with at least 25 years of service, or at age 60 with at least five years of service.

Members retiring from active status prior to the age of 65 may receive actuarially reduced benefits. Retirement benefits are actuarially reduced to reflect the choice of a survivor benefit. Other benefits include duty and non-duty disability payments, an optional cost-of-living adjustment (COLA), and a one-time duty-related death benefit, if found eligible by the Department of Labor and Industries. PERS 1 members were vested after the completion of five years of eligible service. The plan was closed to new entrants on September 30, 1977.

PERS Plan 2/3 provides retirement, disability, and death benefits. Retirement benefits are determined as two percent of the member's average final compensation (AFC) times the member's years of service for Plan 2 and 1 percent of AFC for Plan 3. The AFC is the average of the member's 60 highest-paid consecutive service months. There is no cap on years of service credit. Members are eligible for retirement with a full benefit at 65 with at least five years of service credit. Retirement before age 65 is considered an early retirement. PERS Plan 2/3 members who have at least 20 years of service credit and are 55 years of age or older, are eligible for early retirement with a benefit that is reduced by a factor that varies according to age for each year before age 65. PERS Plan 2/3 members who have 30 or more years of service credit and are at least 55 years old can retire under one of two provisions:

- With a benefit that is reduced by three percent for each year before age 65; or
- With a benefit that has a smaller (or no) reduction (depending on age) that imposes stricter return-to-work rules.

PERS Plan 2/3 members hired on or after May 1, 2013, have the option to retire early by accepting a reduction of five percent for each year of retirement before age 65. This option is available only to those who are age 55 or older and have at least 30 years of service credit. PERS Plan 2/3 retirement benefits are also actuarially reduced to reflect the choice of a survivor benefit. Other PERS Plan 2/3 benefits include duty and non-duty disability payments, a cost-of-living allowance (based on the CPI), capped at three percent annually and a one-time duty related death benefit, if found eligible by the Department of Labor and Industries. PERS 2 members are vested after completing five years of eligible service. Plan 3 members are vested in the defined benefit portion of their plan after ten years of service; or after five years of service if 12 months of that service are earned after age 44.

PERS Plan 3 defined contribution benefits are totally dependent on employee contributions and investment earnings on those contributions. PERS Plan 3 members choose their contribution rate upon joining membership and have a chance to change rates upon changing employers. As established by statute, Plan 3 required defined contribution rates are set at a minimum of 5 percent and escalate to 15 percent with a choice of six options. Employers do not contribute to the defined contribution benefits. PERS Plan 3 members are immediately vested in the defined contribution portion of their plan.

The PERS Plan 2/3 employer and employee contribution rates are developed by the Office of the State Actuary to fully fund Plan 2 and the defined benefit portion of Plan 3. The Plan 2/3 employer rates include a component to address the PERS Plan 1 Unfunded Actuarial Accrued Liability (UAAL) and an administrative expense that is currently set at 0.18 percent. Each biennium, the state Pension Funding Council adopts Plan 2 employer and employee contribution rates and Plan 3 contribution rates. The PERS Plan 2/3 required contribution rates (expressed as a percentage of covered payroll) for 2022 were as follows:

	PERS Plan 2/3		
Actual Contribution Rates	Employer Plan 2/3	Employee Plan 2	Employee Plan 3
January – August 2022			
PERS Plan 2/3	6.36%	6.36%	Varies
PERS Plan 1 UAAL	3.71%		
Administrative Fee	0.18%		
Total	10.25%		
September – December 2022			
PERS Plan 2/3	6.36%	6.36%	Varies
PERS Plan 1 UAAL	3.85%		
Administrative Fee	0.18%		
Total	10.39%		

Water Quality’s actual contributions to the PERS plan 2/3 were $8.5 million for the year ended December 31, 2022.

Actuarial assumptions – The total pension liability (TPL) for each of the DRS plans was determined using the most recent actuarial valuation completed in 2022 with a valuation date of June 30, 2021. The actuarial assumptions used in the valuation were based on the results of the Office of the State Actuary's (OSA) 2013-2018 Experience Study and the *2021 Economic Experience Study*.

Additional assumptions for subsequent events and law changes are current as of the 2021 actuarial valuation report. The TPL was calculated as of the valuation date and rolled forward to the measurement date of June 30, 2022. Plan liabilities were rolled forward from June 30, 2021, to June 30, 2022, reflecting each plan's normal cost (using the entry-age cost method), assumed interest and actual benefit payments.

- Inflation: 2.75 percent total economic inflation; 3.25 percent salary inflation.
- Salary increases: In addition to the base 3.25 percent salary inflation assumption, salaries are also expected to grow by promotions and longevity.
- Investment rate of return: 7.0 percent

Mortality rates were developed using the Society of Actuaries' Pub. H-2010 mortality rates, which vary by member status, as the base table. OSA applied age offsets for each system, as appropriate, to better tailor the mortality rates to the demographics of each plan. OSA applied the long-term MP-2017 generational improvement scale, also developed by the Society of Actuaries, to project mortality rates for every year after the 2010 base table. Mortality rates are applied on a generational basis; meaning, each member is assumed to receive additional mortality improvements in each future year throughout their lifetime.

Methods did not change from the prior contribution rate setting in the June 30, 2019 Actuarial Valuation Report (AVR), however OSA introduced a temporary method change to produce asset and liability measures for the June 30, 2020 AVR. There were also the following assumption changes:

- OSA updated the Joint-and-Survivor Factors and Early Retirement Factors in the model. Those factors are used to value benefits for early retirement and survivors of members that are deceased prior to retirement. These factors match the administrative factors provided to DRS for future implementation that reflect current demographic and economic assumptions.

- OSA updated the economic assumptions based on the 2021 action of the PFC and the LEOFF Plan 2 Retirement Board. The investment return assumption was reduced from 7.5 percent (7.4 percent for LEOFF 2) to 7.0 percent, and the salary growth assumption was lowered from 3.5 percent to 3.25 percent. This action is a result of recommendations from OSA's biennial economic experience study.

Discount rate – The discount rate used to measure the total pension liability for all DRS plans was 7.0 percent.

To determine that rate, an asset sufficiency test was completed to test whether each pension plan's fiduciary net position was sufficient to make all projected future benefit payments for current plan members. Based on OSA's assumptions, the pension plans' fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of 7.0 percent was used to determine the total liability.

Long-term expected rate of return – The long-term expected rate of return on the DRS pension plan investments of 7.0 percent was determined using a building-block-method. In selecting this assumption, OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered Capital Market Assumptions (CMAs) and simulated expected investment returns provided by the Washington State Investment Board (WSIB). The WSIB uses the CMA's and their target asset allocation to simulate future investment returns at various future times.

Estimated rates of return by asset class – The table below summarizes the best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2022. The inflation component used to create the table is 2.2 percent and represents the WSIB's most recent long-term estimate of broad economic inflation.

Asset Class	Target Allocation	% Long-Term Expected Real Rate of Return Arithmetic
Fixed income	20.00%	1.50%
Tangible assets	7.00%	4.70%
Real estate	18.00%	5.40%
Global equity	32.00%	5.90%
Private equity	23.00%	8.90%
	100.00%	

Sensitivity of net pension liability (asset) – The table below presents Water Quality's proportionate share of the net pension liability (asset) calculated using the discount rate of 7.0 percent, as well as what Water Quality's proportionate share of the net pension liability/(asset) would be if it were calculated using a discount rate that is 1-percentage point lower (6.0 percent) or 1-percentage point higher (8.0 percent) than the current rate (in thousands).

Pension Plan	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
PERS 2/3	$ 26,681	$ (22,657)	$ (63,191)

Pension plan fiduciary net position – Detailed information about the fiduciary net position of the State's pension plans is available in the separately issued DRS financial report.

Pension liability (asset), pension expense, and deferred outflows of resources and deferred inflows of resources related to pensions – At December 31, 2022, Water Quality reported $22.7 million for its proportionate share of the net pension asset of PERS Plan 2/3.

Water Quality's proportionate share of the collective net pension asset was as follows:

	Proportionate Share 6/30/21	Proportionate Share 6/30/22	Change in Proportion
PERS 2/3	0.61%	0.61%	-

Employer contribution transmittals received and processed by the DRS for its fiscal year ended June 30, 2022, are used as the basis for determining each employer's proportionate share of the collective pension amounts reported by the DRS in the Schedules of Employer and Nonemployer Allocations for all plans except Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 1.

Pension expense (benefit) – For the year ended December 31, 2022, Water Quality recognized pension benefits in the amount of $4.8 million.

Deferred outflows of resources and deferred inflows of resources – At December 31, 2022, Water Quality reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

PERS 2/3	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience.	$ 5,614	$ (513)
Net difference between projected and actual investment earnings on pension plan investments.	-	(16,750)
Changes of assumptions	12,628	(3,307)
Changes in proportion and differences between contributions and proportionate share of contributions.	991	(622)
Contributions subsequent to the measurement date.	2,756	-
Total	$ 21,989	$ (21,192)

Deferred outflows of resources related to pensions resulting from Water Quality's contributions subsequent to the measurement date will be recognized as a reduction of the pension liability in the year ended December 31, 2023. Other amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Year Ending December 31,	PERS 2/3
2023	$ (5,160)
2024	(4,503)
2025	(5,490)
2026	7,811
2027	2,707
Thereafter	2,676

Note 12 – Other Post-Employment Benefits

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, establishes standards for recognizing and measuring other postemployment benefits (OPEB) liabilities, deferred outflows of resources, deferred inflows of resources, and expenses. The following table represents Water Quality's allocated OPEB amounts subject to the requirements of GASB Statement No. 75 for the year 2022 (in thousands):

	OPEB Amounts
OPEB liabilities	$ 2,441
Deferred outflows of resources	279
Deferred inflows of resources	738
OPEB expense	934

Plan description – The County administers a single-employer defined-benefit postemployment healthcare plan (the Plan). The Plan provides healthcare insurance for eligible retirees and their spouses and children through the County's health insurance plan, which covers retired members. The plan provides healthcare insurance benefits and prescription coverage. The plan offers dental and vision benefits, but the retiree premiums are assumed to cover the full cost of those benefits.

As a self-insurer, the County establishes a monthly premium rate for insurance benefits each budget year. Eligible retirees may continue to receive insurance benefits by contributing 100 percent of the Consolidated Omnibus Budget Reconciliation Act or COBRA rate for these benefits. The program provides the same level of healthcare benefits to retirees as the active group plan. LEOFF1 retirees are not required to contribute as the County pays 100 percent of their medical costs. The County pays benefits as they come due.

Employees covered by benefit terms – At December 31, 2022, the benefit terms covered the following employees:

Category	Count
Inactive employees, spouses, or beneficiaries currently receiving benefit payments	510
Active employees	14,525
Total	15,035

Net OPEB liability – The County's total OPEB liability was valued as of December 31, 2022, and was used to calculate the net OPEB liability measured as of December 31, 2022.

Actuarial assumptions – The total OPEB liability in the December 31, 2022, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Measurement Date	December 31, 2022
Discount rate	4.05%
Inflation	2.75%
Healthcare Cost Trend Rates	
Pre-Medicare	7.40%
Medicare	4.20%
Salary Increases	3.25%
Mortality Rates	Public Employer Mortality Tables - Society of Actuaries

- Projections of the sharing of benefit-related costs are based on an established pattern of practice.
- Experience studies come from the State of Washington 2018 reports.
- Inactive employees (retirees) pay 100 percent of the cost of benefits, except for LEOFF1 which pays zero percent.
- There were no ad hoc postemployment benefit changes (including ad hoc COLAs) to the plan.

The discount rate used to measure the total OPEB liability is 4.05 percent. The County's OPEB Plan is an unfunded plan, therefore the discount rate was set to the rate of tax-exempt, high-quality 20-year municipal bonds, as of the valuation date.

Changes in total OPEB liability – Water Quality's allocated changes in the total OPEB liability for the year ended December 31, 2022, were as follows (in thousands):

Total OPEB liability - 1/1/2022	$ 1,851
Changes for the year:	
Service cost	81
Interest	52
Differences between expected and actual experience	173
Change of assumptions	(527)
Benefit payments	(102)
Implicit subsidy credit	(56)
Other changes	969
Net changes	590
Total OPEB liability - 12/31/2022	$ 2,441

Sensitivity of the net OPEB liability to changes in the discount rate – The table below presents Water Quality's proportionate share of the total OPEB liability as well as what Water Quality's proportionate share of the total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (3.05 percent) or one percentage point higher (5.05 percent) than the current rate (in thousands).

	1% Decrease (3.05%)	Current Discount Rate (4.05%)	1% Increase (5.05%)
Total OPEB liability	$ 2,612	$ 2,441	$ 2,282
Increase (Decrease)	171		(159)
% change	7.02%		-6.53%

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates – The healthcare trend for this valuation started at 7.4 percent and decreased to 4.14 percent over 52 years. The table below presents Water Quality's proportionate share of the total OPEB liability as well as what Water Quality's proportionate share of the total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.4 percent) or one percentage point higher (8.4 percent) than current healthcare cost trend rates (in thousands).

	1% Decrease (6.40%)	Trend Rate (7.40%)	1% Increase (8.40%)
Total OPEB liability	$ 2,237	$ 2,441	$ 2,674
Increase (Decrease)	(204)		233
% change	-8.35%		9.56%

Deferred outflows of resources and deferred inflows of resources – At December 31, 2022, Water Quality reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 195	$ (151)
Changes of assumptions	84	(587)
Total	$ 279	$ (738)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB in the year ended December 31, 2022, will be recognized as OPEB expense as follows (in thousands):

Year Ending December 31,	Amount
2023	$ (70)
2024	(70)
2025	(70)
2026	(70)
2027	(59)
Thereafter	(120)

Expected average remaining service lives (EARSL) – The effects on the total OPEB liability of (1) changes of economic and demographic assumptions or of other inputs and (2) differences between expected and actual experience are required to be included in OPEB expense in a systematic and rational manner over a closed period equal to the average of the expected remaining service lives of all employees that are provided with benefits through the OPEB plan (active employees and inactive employees), beginning in the current period. The EARSL for the current period is 8.9 years.

Note 13 – Interfund Balances and Transfers

Water Quality is an enterprise fund of the County and reports in its financial statements interfund balances and transfers as a result of intra-county activity with other County agencies.

Interfund balances – The balances result from the time lag between the dates when interfund goods and services were provided or reimbursable expenditures incurred and when interfund payments were made, Water Quality reported total due from other funds of $6.1 million and due to other funds of $52 thousand at December 31, 2022.

Interfund transfers – The King County Council approves ordinances and/or motions authorizing Water Quality to contribute and receive amounts to and from various County funds. During 2022, the transfers from Water Quality to other funds were $1.2 million and transfers from other funds were $250 thousand.

Note 14 – Commitments and Contingencies

Construction and maintenance programs – To ensure the continued operation, reliability, and compliance with regulatory standards of existing wastewater treatment facilities, Water Quality has active construction and contractual commitments of approximately $465.4 million on active construction contracts as of December 31, 2022.

Contingencies and claims – The following litigation, or potential litigation, may involve claims for material damages against the King County Water Quality Enterprise Fund for which Water Quality is unable to provide an opinion as to the ultimate outcome or the amount of damages that may be found:

- *Lower Duwamish Waterway* – The Environmental Protection Agency (EPA) issued an administrative order that required King County, the City of Seattle, Boeing, and the Port of Seattle to conduct studies to determine the nature and extent of contamination in the Lower Duwamish Waterway. The County and the other three parties have agreed with the EPA to amend the administrative order on a number of occasions to conduct additional studies. The last two amendments cover the first two (of three) phases of remedy design. EPA's Record of Decision (ROD), issued in 2014, contains EPA's final plan for cleanup. The County and a number of other parties are participating in an alternative dispute resolution process, called an allocation, to determine shares of liability for the costs of the cleanup. The EPA has issued the Final Allocation identifying party shares, and sufficient parties have accepted their allocated shares and move toward final settlements. The Port of Seattle, however, withdrew from the Allocation process and sued the Boeing Company, seeking to have Boeing pay more and it pay less in site costs. The County, the City of Seattle, and other allocation participants weighed in in favor of the court staying the Port's suit so that settlements among allocation participants can first be reached to avoid the suit expanding to other parties. The court has now stayed the case until August of 2023. In addition, in January of 2023, the EPA issued Special Notice Letters to the Port, County, City, Boeing, and certain United States agencies inviting consent decree negotiations for performance of final cleanup, and the County is involved in consent decree negotiations with the EPA and other parties now. Due to the fact that additional process is still involved to negotiate final settlements among participants, that a settlement must also be reached with the United States (as a non-participant potentially responsible party (PRP)), and the consent decree has not yet been negotiated with the EPA, the County is unable to determine the schedule or cost of any required remediation.

- *Denny Way CSO Model Toxic Control Act Cleanup* – There was a potential requirement for more cleanup in the area contaminated when the Denny Way combined sewer outflow (CSO) was replaced in 2005. Water Quality signed an Agreed Order with the Washington State Department of Ecology (DOE) under the Model Toxics Control Act for an interim cleanup action in November 2007 and subsequently performed the interim cleanup at a cost of $3.6 million. Water Quality has recently engaged in negotiations with the DOE to prepare a remedial investigation, feasibility study and draft cleanup action plan, and to implement what may be an interim or final cleanup action. It is unclear what final remedy the DOE may select. The County is unable to determine an amount, if any, for which Water Quality may be responsible.

- *East Waterway Operable Unit of the Harbor Island Superfund Site* – The Port of Seattle completed a significant removal action in the East Waterway. In addition, the Port of Seattle under administrative order to the EPA has completed the site investigation including a supplemental Remedial Investigation/Feasibility Study (RI/FS). A three-way agreement with the Port of Seattle, the City of Seattle and King County covers the participation of the City, the Port, and the County in the supplemental RI/FS process, and allocates to the County a one-third pro-rata share of the study costs as defined in the agreement. These costs are subject to reallocation among Potentially Responsible Parties (PRP), and the County, City, and Port have now begun their efforts to seek contribution from other PRPs for these and future site costs. The County, City, and Port are in early discussions with over 20 other parties to begin participation in an alternative dispute resolution process, called an allocation, to determine shares of liability for the costs of investigation and cleanup. Due to the fact that the parties do not yet know their respective shares of cleanup costs and no consent decree has been negotiated with the EPA, the County is unable to determine the schedule or cost of any required remediation. In addition, the County is unable to determine the extent to which King County and Water Quality (which has been covering the costs of the County's share to date) will be responsible for the cost of such remediation. On April 20, 2023, the EPA issued a Proposed Plan which proposes an interim cleanup remedy for the site.

- *Lower Duwamish Waterway - Possible Natural Resource Damages* – The County has participated in discussions with National Oceanic and Atmospheric Administration (NOAA) regarding alleged natural resource damages (NRD) in the Lower Duwamish Waterway and around Harbor Island. These discussions have included NOAA's determination that the County may be a potentially liable party that has contributed to the release of hazardous substances that have injured natural resources. NOAA notified the County in 2016 that the Natural Resources Trustees will proceed with a NRD assessment and invited the County to participate in the development of the assessment. The County notified NOAA in 2016 and again in 2019 that the County desires to conduct settlement discussions with NOAA regarding the NRD liability that NOAA attributes to the County. The County is currently in the process of negotiating a settlement with NOAA but cannot predict the amount or likelihood of settlement.

- *Suquamish Tribe Notice of Intent to Sue* – In July 2020, the Suquamish Tribe (Tribe) submitted a Notice of Intent (NOI) to sue under the Clean Water Act for the County's discharges of untreated wastewater in violation of the County's discharge permits. In March 2021, the Tribe submitted a supplemental NOI for additional County discharges. The parties approved a settlement agreement, whereby the County agreed to pay close to $5.0 million for Supplemental Environmental Projects and mitigation for the alleged discharge events occurring during the past five years and any possible future discharge events through December 31, 2026. The settlement agreement also requires the County to complete power supply and voltage sag mitigation projects and replace the four existing raw sewage pumps at the West Point Treatment Plant. The County previously identified projects to address these issues and work is underway. The settlement agreement requires the Suquamish Tribe to waive its right to sue the County through December 31, 2026, for any alleged violation of the Clean Water Act or any other potential cause of action related to any alleged unauthorized wastewater discharge or alleged permit violation.

- *Georgetown Wet Weather Treatment Station* – This project involves construction of a new 70.0 million gallon per day capacity wet weather treatment station for treating combined sewer overflow wastewater. The contract was awarded to a contractor in the amount of $96.2 million. The contractor sought $22.0 million in additional compensation for claims including pervasive design impacts, contaminated soil, schedule delays in obtaining a shoring and dewatering permit, addressing a sinkhole and water intrusion that occurred while driving secant pile shaft, and additional costs associated with electrical work. By way of the contractually required Alternative Dispute Resolution process, the County and the contractor reached a settlement in April 2023, for $9.0 million.

- *Sunset and Heathfield Pump Stations and Force Main Upgrade Project* – The project involves installation of eight new raw sewage pumps, four at the Sunset Pump Station and four at the Heathfield Pump Station, and related improvements to these facilities, including upgrades to electrical systems, mechanical systems and conveyance system piping. The contract was awarded to a contractor for $36.6 million with $46.8 million paid to date. The contractor sought $8.9 million in additional compensation for claims including work to address ongoing vibration issues and mechanical failures in the installed pumps. By way of the contractually required Alternative Dispute Resolution process, the County and the contractor reached a settlement in September 2022, for $5.8 million.

- *Permitting* – In December 2021, the DOE issued the Puget Sound Nutrient General Permit (PSNGP) which applies to all 58 wastewater treatments plants in the State. To comply with the permit would potentially require the County to spend well in excess of $15.0 million. The County and eight other wastewater utilities have appealed the permit to the Pollution Control Hearings Board (PCHB) and have also obtained a partial stay of the permit's provisions during the pendency of the appeal. In August 2022, the PSNGP appeal case was placed on hold by the PCHB pending resolution of the Washington Court of Appeals Case No. 56859-4-II. That Court of Appeals case was brought by other public wastewater utilities prior to the issuance of the PSNGP and it involves a somewhat related issue. Oral argument in the Court of Appeals case has been set for June, 2023.

Note 15 – Subsequent Events

On January 5, 2023 and January 9, 2023, Water Quality redeemed commercial paper in the amounts of $22.7 million and $14.8 million, respectively.

On March 6, 2023, Water Quality and the Department of Ecology signed a loan agreement amendment for the Georgetown Wet Weather Treatment Station project increasing the funding by $139.3 million at effective interest rates between 1.4 and 1.6 percent for 30 years.

On March 6, 2023, Water Quality and the Department of Ecology signed a loan agreement amendment for the Joint Ship Canal project increasing the funding by $26.0 million at an effective interest rate of 1.4 percent for 30 years.

On March 20, 2023, the County entered into an agreement with the Puget Sound Restoration Fund (PSRF) as part of the October, 2022 settlement agreement with the Suquamish Tribe, specifying the scope for three Supplemental Environmental Projects (SEP) to be completed by October 2027.

On April 12, 2023, Water Quality reached a settlement agreement with its construction contractor amounting to $9.0 million for additional costs incurred on the Georgetown Wet Weather Treatment Station project.

Required Supplementary Information

Schedule of the County's Proportionate Share of the Net Pension Liability
Public Employees' Retirement System (PERS) Plan 1
Measurement Date of June 30*
(dollars in thousands)

	2022	2021	2020	2019	2018
County's proportion of the net pension liability	8.27%	8.61%	8.85%	8.25%	8.56%
County's proportionate share of the net pension liability	$ 230,262	$ 105,126	$ 312,368	$ 317,333	$ 382,129
Covered payroll	$ 1,302,359	$ 1,266,269	$ 1,283,745	$ 1,196,465	$ 1,124,434
County's proportionate share of the net pension liability as a percentage of covered payroll	17.68%	8.30%	24.33%	26.52%	33.98%
Plan fiduciary net position as a percentage of the total pension liability	76.56%	88.74%	68.64%	67.12%	63.22%

	2017	2016	2015
County's proportion of the net pension liability	8.45%	8.90%	8.76%
County's proportionate share of the net pension liability	$ 400,803	$ 477,872	$ 458,477
Covered payroll	$ 1,031,025	$ 1,007,624	$ 1,000,211
County's proportionate share of the net pension liability as a percentage of covered payroll	38.87%	47.43%	45.84%
Plan fiduciary net position as a percentage of the total pension liability	61.24%	57.03%	59.10%

* This schedule is to be built prospectively until it contains ten years of data.

King County Water Quality Enterprise Fund
Required Supplementary Information
Pension Plan Information

Schedule of the County's Proportionate Share of the Net Pension Liability
Public Employees' Retirement System (PERS) Plan 2/3
Measurement Date of June 30*
(dollars in thousands)

	2022	2021	2020	2019	2018
County's proportion of the net pension liability (asset)	(10.31%)	(10.53%)	10.85%	10.06%	10.29%
County's proportionate share of the net pension liability (asset)	$ (382,490)	$ (1,049,145)	$ 138,736	$ 97,735	$ 175,728
Covered payroll	$ 1,298,630	$ 1,036,103	$ 1,219,052	$ 1,144,724	$ 1,072,968
County's proportionate share of the net pension liability (asset) as a percentage of covered payroll	(29.45%)	(101.26%)	11.38%	8.54%	16.38%
Plan fiduciary net position as a percentage of the total pension liability	106.73%	120.29%	97.22%	97.77%	95.77%

	2017	2016	2015
County's proportion of the net pension liability (asset)	10.14%	10.52%	10.36%
County's proportionate share of the net pension liability (asset)	$ 352,361	$ 529,855	$ 370,294
Covered payroll	$ 995,800	$ 953,254	$ 949,860
County's proportionate share of the net pension liability (asset) as a percentage of covered payroll	35.38%	55.58%	38.98%
Plan fiduciary net position as a percentage of the total pension liability	90.97%	85.82%	89.20%

* This schedule is to be built prospectively until it contains ten years of data.

Schedule of the County's Contributions
Public Employees' Retirement System (PERS) Plan 1
For the Year Ended December 31*
(dollars in thousands)

	2022	2021	2020	2019	2018
Contractually required contributions	$ 53,488	$ 56,706	$ 60,884	$ 62,259	$ 59,366
Contributions in relation to the contractually required contributions	53,488	56,708	60,884	62,259	59,366
Contribution deficiency (excess)	$ - **	$ (2)	$ -	$ -	$ -
Covered payroll	$ 1,388,530	$ 1,316,507	$ 1,306,676	$ 1,245,598	$ 1,154,804
Contributions as a percentage of covered payroll	3.85%	4.31%	4.66%	5.00%	5.14%

	2017	2016	2015
Contractually required contributions	$ 54,111	$ 50,154	$ 25,283
Contributions in relation to the contractually required contributions	54,111	50,154	25,283
Contribution deficiency (excess)	$ -	$ -	$ -
Covered payroll	$ 1,082,715	$ 1,028,598	$ 507,206
Contributions as a percentage of covered payroll	5.00%	4.88%	4.98%

* This schedule is to be built prospectively until it contains ten years of data.

** The excess contribution in PERS 1 and deficiency in PERS 2 resulted from the employer contributions of King County Flood Control District, a component unit of the County,

King County Water Quality Enterprise Fund
Required Supplementary Information
Pension Plan Information

Schedule of the County's Contributions
Public Employees' Retirement System (PERS) Plan 2/3
For the Year Ended December 31*
(dollars in thousands)

	2022	2021	2020	2019	2018
Contractually required contributions	$ 86,165	$ 92,418	$ 101,390	$ 93,935	$ 84,792
Contributions in relation to the contractually required contributions	86,165	92,416	101,390	93,935	84,792
Contribution deficiency (excess)	$ - **	$ 2	$ -	$ -	$ -
Covered payroll	$ 1,336,109	$ 1,264,018	$ 1,251,724	$ 1,188,641	$ 1,103,984
Contributions as a percentage of covered payroll	6.45%	7.31%	8.10%	7.90%	7.68%

	2017	2016	2015
Contractually required contributions	$ 72,763	$ 62,650	$ 72,853
Contributions in relation to the contractually required contributions	72,763	62,650	72,853
Contribution deficiency (excess)	$ -	$ -	$ -
Covered payroll	$ 1,031,418	$ 977,342	$ 933,304
Contributions as a percentage of covered payroll	7.05%	6.41%	7.81%

* This schedule is to be built prospectively until it contains ten years of data.

** The excess contribution in PERS 1 and deficiency in PERS 2 resulted from the employer contributions of King County Flood Control District, a component unit of the County,

Notes to Pension Required Supplementary Information

For PERS, the Office of the State Actuary (OSA) calculates the actuarially determined contributions (ADC) based on the results of an actuarial valuation consistent with the state's funding policy defined in Chapter 41.45 the Revised Code of Washington (RCW).

Consistent with the state's contribution-rate adoption process, the results of an actuarial valuation with an odd-numbered year valuation date determine the ADC for the biennium that ensues two years later. The actuarial valuation with a June 30, 2019, valuation date, completed in the fall of 2020, plus any supplemental contribution rates from the preceding legislative session, determined the ADC for the period beginning July 1, 2021, and ending June 30, 2023.

OSA calculates the ADC consistent with the methods described above. Adopted contribution rates could be different pending the actions of the governing bodies.

For cost-sharing plans, OSA calculates the contractually required contributions (CRC) using the same assumptions and methods as the ADC except the CRC reflect the adopted contribution rates for the time period shown, which might differ from the contribution rates produced for the ADC.

A ten-year schedule of Annual Money-Weighted Rates of Return, built prospectively from fiscal year 2014, is available in the 2022 Washington State Department of Retirement Systems ACFR. The ACFR is available online at https://www.drs.wa.gov/administration/annual-report/.

Schedule of the County's Changes in Total OPEB Liability and Related Ratios
For the Year Ended December 31*
(dollars in thousands)

	2022	2021	2020	2019	2018
Total OPEB liability - beginning of year	$ 106,488	$ 106,619	$ 111,272	$ 111,412	$ 118,120
Service cost	3,044	2,865	2,220	2,155	2,092
Interest	1,960	2,125	4,149	4,138	4,147
Differences between expected and actual experience	6,526	-	(8,646)	-	3,332
Changes of assumptions	(19,885)	1,300	3,310	-	(9,652)
Benefit payments	(3,863)	(4,404)	(3,922)	(4,953)	(5,244)
Implicit rate subsidy fulfilled	(2,112)	(2,017)	(1,764)	(1,480)	(1,383)
Net change in total OPEB liability	(14,330)	(131)	(4,653)	(140)	(6,708)
Total OPEB liability - end of year	$ 92,158	$ 106,488	$ 106,619	$ 111,272	$ 111,412
Covered-employee payroll	$ 1,395,600	$ 1,370,460	$ 1,324,116	$ 1,219,237	$ 1,217,867
Total OPEB liability as a percentage of covered payroll	6.60%	7.77%	8.05%	9.13%	9.15%

* This schedule is to be built until it contains ten years of data.

Notes to OPEB Required Supplementary Information

The plan does not have assets in trusts or equivalent arrangements and is funded on a pay-as-you-go basis. Potential factors that may significantly affect trends in amounts reported include changes to the discount rate, health care trend rates, salary projections, benefit terms, and participation percentages.

Other Information

King County Water Quality Enterprise Fund
Supplemental Information
Supplemental Schedule of Debt Service Coverage Ratios (Unaudited)
Year Ended December 31, 2022

Water Quality is obligated by applicable bond ordinances to set sewage disposal rates at a level adequate to provide net revenue equal to at least 1.15 times the annual debt service requirements for sewer revenue and general obligation bonds payable from revenues of Water Quality. It is an adopted policy of Water Quality to achieve a debt service coverage ratio of 1.25.

Coverage (1.15 required by covenant, adopted policy 1.25)	2.00

In 2001, Water Quality adopted a new debt service target of 1.15 times the annual debt service for bonds, obligations, notes, and loans of Water Quality.

Coverage (1.15 adopted target)	1.72

Water Quality is required to generate revenues sufficient to pay all costs of operation of the sewage treatment system and debt service on obligations of Water Quality.

Coverage (1.00 required by covenant)	1.51

In 2001, Water Quality issued an additional tier of revenue bonds. The bond covenants of the Junior Lien Variable Rate Demand Sewer Revenue Bonds, Series 2001A and Series 2001B, require that sewage disposal rates provide net revenue equal to at least 1.10 times the annual debt service requirements for all junior lien obligations after payment of senior lien requirements. All of Water Quality Junior Lien Variable Rate Sewer Revenue Bonds and Multi-Modal Limited Tax General Obligation Revenue Bonds incorporate the identical requirement stated in the 2001 bond covenant requirements. Beyond the continuation of low interest rates, improved coverage in 2020 and 2021 resulted from early calls and refinancing of higher interest rates 2011 and 2012 put bonds.

Coverage (1.10 required by covenant)	31.80

King County Water Quality Enterprise Fund
Supplemental Information
Supplemental Schedule of Historical Debt Service Coverage Ratios (Unaudited)

DEBT SERVICE COVERAGE FOR THE WATER QUALITY ENTERPRISE
LAST TEN FISCAL YEARS
(dollars in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Residential customer and residential customer										
Equivalents (RCEs) (annual average, rounded)	718,160	725,844	736,090	756,430	756,916	760,571	763,436	767,265	738,286	749,117
Percentage annual change	1.31%	1.07%	1.41%	2.76%	0.06%	0.48%	0.38%	0.50%	-3.78%	1.47%
Operating revenues										
Sewage disposal fees	$ 342,850	$ 346,591	$ 371,253	$ 381,513	$ 401,650	$ 403,589	$ 415,279	$ 417,361	$ 419,672	$ 442,908
Rate stabilization	10,350	18,000	(12,000)	-	-	-	-	-	-	-
Capacity charge revenues	58,660	59,522	62,479	71,200	82,615	86,836	102,146	92,622	90,814	98,193
Other operating revenues	10,126	11,675	11,674	11,828	18,308	19,125	19,024	19,956	24,010	26,227
Total Operating Revenues	421,986	435,788	433,406	464,541	502,573	509,550	536,449	529,939	534,496	567,328
Operating and maintenance expenses [1)]	117,183	122,014	127,211	138,698	142,263	139,585	143,834	154,513	138,166	158,816
Add: GAAP adjustment [2)]	-	2,187	1,715	(2,377)	5,936	13,004	10,438	3,505	18,198	14,191
Net operating and maintenance expenses	117,183	124,201	128,926	136,321	148,199	152,589	154,272	158,018	156,364	173,007
Net operating revenue	304,803	311,587	304,480	328,220	354,374	356,961	382,177	371,921	378,132	394,321
Interest income [3)]	2,682	2,822	2,863	4,549	6,055	8,956	10,765	7,971	4,833	7,601
Net revenue available for debt service	307,485	314,409	307,343	332,769	360,429	365,917	392,942	379,892	382,965	401,922
Debt service										
Parity bonds	172,959	175,463	167,694	160,957	159,761	163,967	171,321	162,385	153,818	141,421
Parity lien obligations	43,064	42,876	40,348	53,164	52,650	49,121	41,529	50,755	77,079	59,269
Subordinate debt service	15,039	17,477	18,318	21,316	26,277	33,139	35,174	30,367	12,714	33,501
Total debt service	$ 231,062	$ 235,816	$ 226,360	$ 235,437	$ 238,688	$ 246,227	$ 248,024	$ 243,507	$ 243,611	$ 234,191
Debt service coverage										
On parity bonds	1.78	1.79	1.83	2.07	2.26	2.23	2.29	2.34	2.49	2.84
On parity bonds and parity lien obligations	1.36	1.44	1.48	1.55	1.70	1.72	1.85	1.78	1.66	2.00
On all sewer system obligations	1.33	1.33	1.36	1.41	1.51	1.49	1.58	1.56	1.57	1.72

1) 2014 operating expenses were restated as part of GASB Statements 68 and 71 implementation.
2) Non-cash GAAP adjustments primarily consist of pension, other post-employment benefits and compensated absence accruals.
3) Interest Income excludes unrealized gains and losses in the fair value adjustment of investments.

MOSSADAMS

Report of Independent Auditors 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*

The Metropolitan King County Council
Seattle, Washington

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 King County Water Quality Enterprise Fund (the Fund), which compromise the statement of net position as of December 31, 2022, and the related statements of revenue, expenses, and changes in net position and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated April 28, 2023.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Fund'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 Fund's internal control. Accordingly, we do not express an opinion on the effectiveness of the Fund'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 may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Fund'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.

Moss Adams LLP

Seattle, Washington
April 28, 2023

MOSSADAMS