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)

December 31, 2019 and 2018

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Report of Independent Auditors

The Metropolitan King County Council
Seattle, Washington

Report on the Financial Statements

We have audited the accompanying financial statements of the King County Water Quality Enterprise Fund (the Fund), which comprise the statements of net position as of December 31, 2019 and 2018December 31, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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 Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the 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, 2019 and 2018, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedule of the County's Proportionate Share of the Net Pension Liability, Schedule of the County's Contributions, and Schedule of the County's Changes in total OPEB Liability and Related Ratios be presented to supplement the basic financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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

Our audits were conducted for the purpose of forming an opinion on the Fund's financial statements. The Supplemental Schedule of Debt Service Coverage Ratios and Supplemental Schedule of Historical Debt Service Coverage Ratios are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The other information has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated April 30, 2020, 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 30, 2020

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 years ended December 31, 2019 and 2018.

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 at West Point in Seattle, South Plant in Renton, 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 four combined sewer overflow (CSO) treatment plants and 39 CSO control locations. The sewer system collected and treated an average of 161 million gallons per day (MGD) in 2019 from approximately 1.8 million residents.

Financial Highlights

During 2019, Water Quality provided sewage treatment services to 763,436 residential customer equivalents (RCE) compared to 760,571 in 2018 and 756,916 in 2017. 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 12,513 new connections to its customer billing base in 2019. The program added 12,906 and 12,484 new connections in 2018 and 2017, respectively. In 2019, the average flow of the five treatment plants was 161 MGD with a peak daily flow of 752 MGD. Maximum system capacity was 868 MGD in 2019 and in 2018. The average daily flow fluctuated between a peak of 161 MGD in 2019 and 177 MGD in 2018. The annual fluctuation in flows largely depends on the amount of annual precipitation.

In 2019, resource recovery delivered 124,958 tons compared to 129,568 tons in 2018 of Loop® biosolids to customers for use in forest management, agriculture, and composting. Approximately 82.3 million gallons compared to 76.9 million gallons in 2018 of Class A reclaimed water was distributed for irrigation, urinals/toilets, municipal purposes, and wetland enhancement and about 719 million gallons of filtered, treated wastewater compared to 669 million gallons in 2018 were used for internal treatment plant processes. 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 Puget Sound Energy from the South Treatment Plant in 2019 and 2.5 million therms in 2018. 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 RINS (Renewable Identification Numbers). 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. In 2019, RINS revenues were $2.8 million from which $800 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. The utility costs to produce RINS in 2019 were offset by an unusual two-month spike in methane gas revenue. In 2018, RINS revenue totaled $4.4 million from which $762 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 17.2 million kilowatt hours of electricity generated from digester gas in 2019 and 14.4 million kilowatt hours in 2018.

Financial Highlights (continued)

The Industrial Pretreatment Program conducted 244 inspections and took 1,712 compliance samples in 2019 compared to 297 inspections and 1,777 compliance samples taken in 2018. The program currently tracks 545 facilities with discharge authorization permits and 104 significant industrial users compared to 551 facilities with discharge authorization permits and 109 significant industrial users in 2018.

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. Total capital program expenditures were $209.3 million in 2019 and $225.6 million in 2018.

Water Quality currently has 39 CSO locations plus four 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 2012, the EPA entered a consent decree (CD) with Water Quality to reduce CSO overflows to meet 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. By 2018, five projects were either completed or operational and under monitoring for compliance. At present, four of the remaining nine projects are underway, including a 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, to initiate negotiations to modify King County's CD with EPA and Ecology 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, anticipated future 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 Washington State Department of Ecology (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 2024 as part of the next West Point NPDES permit renewal.

Financial Highlights (continued)

In April of 2016, the Magnolia CSO Control Facility entered service and functioned until a pipeline leak was detected on November 2, 2016. An extensive analysis was undertaken by Water Quality project management in conjunction with the project contractor to determine the root cause of the leak and a corrective course of action. The work continued until December 2017 when the project team decided on a plan to destroy the existing pipe and replace it with a continuous pipeline. Water Quality determined the original pipeline a total loss and impairment in accordance with governmental accounting standards. The storage tank and other components of this project remain intact and depreciation for them continued since the expected life of the facility remains as originally capitalized. The carrying value of the fully retired pipeline was $9.6 million in 2017. The costs associated with replacing the pipeline totaled $21.7 million and were capitalized in 2019. Water Quality filed a claim against the contractor's insurance policy to recover its costs related to the loss of the failed pipeline and its replacement.

Water Quality operating revenues increased by 5.3 percent, or $26.9 million, to $536.4 million in 2019 from $509.5 million in 2018 while operating expenses before depreciation and amortization increased by 3.1 percent, or $4.3 million, to $143.8 million in 2019 from $139.5 million in 2018. The rise in operating revenue can be attributed to a 2.5 percent increase in the sewer rate to $45.33 from $44.22 in 2018 and 2017. The increase in operating expenses before depreciation and amortization are due to higher chemical prices and large equipment repairs.

Capacity charge revenues increased 17.6 percent, or $15.3 million, to $102.1 million in 2019 from $86.8 million in 2018. The capacity charge rate increased to $64.50 per RCE in 2019 from $62.60 per RCE in 2018. The RCE's billed for sewer treatment services increased to 763,436 in 2019 from 760,571 (based on sewer revenues that include sewer agency prior year adjustments) in 2018. The County allows the capacity charge to be prepaid on a discounted basis at the customer's option. The discount rate reflects the 15-year mortgage and 10- and 20-year Treasury rates and was 3.6 percent in 2019 and 2.9 percent in 2018. Early capacity charge payoffs rose 41.1 percent in 2019 contributing to the increase in capacity charge revenue. In June of 2019, the County Council adopted a capacity charge of $66.35, a 2.9 percent increase, and maintained the $45.33 sewer rate for 2020.

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 in order to moderate the impact of rate increases over time. The rate stabilization reserve was unchanged at $46.3 million in 2019 and 2018. 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.

Financial Highlights (continued)

In January of 2019, Water Quality voluntarily redeemed $1.6 million of principal on its Junior Lien Sewer Revenue Bonds, Series 2015A and 2015B. On June 27, 2019, Water Quality issued $148.1 million in Multi-Modal Limited Tax General Obligation Refunding Bonds, Series 2019A and Series 2019B to refund Junior Lien Sewer Revenue Bonds, Series 2015A and Series 2015B and Junior Lien Sewer Revenue Bonds, Series 2017. On October 7, 2019, Water Quality purchased and deposited U.S. Treasury securities in an irrevocable escrow to defease $22.5 million of outstanding 2012C Sewer Revenue and Refunding Bonds and $64.6 million of outstanding Limited Tax General Obligations Refunding Bonds, Series 2012B and Series 2012C. Funding for the escrow came from operations and excess bond reserves. On October 24, 2019, Water Quality issued $101.0 million in Limited Tax General Obligation Bonds, Series 2019A, to fund its capital program. Water Quality received $14.0 million in low interest state loans in 2019 at rates between 0.8 and 2.6 percent.

In January of 2018, Water Quality voluntarily redeemed $920 thousand of principal on its Junior Lien Sewer Revenue Bonds, Series 2015A and 2015B. In October 2018, Water Quality purchased and deposited U.S. Treasury securities in an irrevocable escrow to defease $135.8 million of outstanding 2010, 2011B, and 2012 Sewer Revenue and Refunding Bonds. Substantially all the funding for the escrow came from the $144.9 million Brightwater judgement awarded to the County in 2016. In November 2018, Water Quality issued $124.5 million in Sewer Revenue Bonds, Series 2018B, to fund its capital program. In December 2018, Water Quality remarketed two Junior Lien Variable Sewer Revenue Bonds, Series 2011 and 2012 at $100.0 million each. These were remarketed at fixed rates of 2.5 and 2.6 percent, respectively and are subject to mandatory repurchase in December 2020 and December 2021, respectively. Water Quality received $27.8 million in low interest state loans in 2018 at rates between 1.7 and 2.7 percent.

On April 19, 2018, Water Quality became the nation's first utility to receive a loan from the EPA's newly created Water Infrastructure Finance and Innovation Act (WIFIA) program – the first major federal assistance program for municipal utilities in almost 20 years. The $134.5 million loan for the Georgetown Wet Weather Treatment Station locks in a 3.1 percent interest rate through the 2051 final maturity date of the loan. Draws on this loan will reimburse Water Quality for costs incurred on the Georgetown project and must be made no later than one year after substantial completion of the project, which is currently scheduled for February of 2022. No draws were taken on this loan in 2019 and 2018. The WIFIA Loan will be evidenced by the County issuing a sewer revenue bond to the EPA.

The results of operations for 2019 and 2018 produced a debt service coverage ratio on senior lien debt of 1.85 and 1.72, respectively, exceeding the coverage covenant requirement of 1.15 in both years. The total debt coverage ratio of 1.58 in 2019 and 1.49 in 2018 exceeded the 1.15 policy minimum in both years.

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 comparative statements of net position; statements of revenues, expenses and changes in net position; statements 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 similar to those used by private-sector companies. The statements provide both long-term and short-term information about Water Quality's financial status.

The comparative 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 each year-end. 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 two most recent years' operating, and non-operating revenues and expenses of Water Quality are accounted for in the statements of revenues, expenses and changes in net position. The statements illustrate the current and prior 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 $415.3 million provided 77.4 percent of operating revenues in 2019 and $403.6 million provided 79.2 percent of operating revenues in 2018. 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 statements of cash flows report cash receipts, cash payments, and net changes in cash derived from operations, financing, and investment activities. From the statements, the reader can discern Water Quality's sources and applications of cash during 2019 and 2018, reasons for differences between operating cash flows and operating income, and the effect on the statements of net position from investing, capital, and financing activities.

Overview of the Financial Statements (continued)

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 comparative 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,		
	2019	2018	2017
Current assets	$ 381.1	$ 297.9	$ 438.7
Noncurrent assets	289.1	310.9	242.4
Capital assets	4,112.8	4,096.1	4,077.8
Other	124.8	121.0	120.2
Total assets	4,907.8	4,825.9	4,879.1
Deferred outflows of resources	188.9	210.0	233.6
Total assets and deferred outflows of resources	5,096.7	5,035.9	5,112.7
Current liabilities	216.2	212.4	216.0
Noncurrent liabilities	3,994.3	4,019.4	4,146.0
Total liabilities	4,210.5	4,231.8	4,362.0
Deferred inflows of resources	59.5	58.4	54.1
Total liabilities and deferred inflows of resources	4,270.0	4,290.2	4,416.1
Net position - net investment in capital assets	422.9	353.1	180.7
Net position - restricted	230.6	237.8	235.9
Net positon - unrestricted	173.2	154.8	280.0
Total net position	$ 826.7	$ 745.7	$ 696.6

Net position serves as a useful indicator of Water Quality's financial position. As of December 31, 2019, and 2018, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $826.7 million and $745.7 million, respectively.

Financial Analysis of the Statement of Net Position (continued)

Of the total Water Quality assets and deferred outflows of resources, 80.7 percent or $4,112.8 million were invested in capital assets such as treatment plants, pumping and regulator stations, interceptors, and other equipment at year-end 2019. Net investment in capital assets increased by 19.8 percent or $69.8 million primarily due to new bond proceeds. For the year-end 2018, 81.3 percent or $4,096.1 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 10.9 percent or $81.0 million in 2019 to $826.7 million from $745.7 million in 2018. Changes in net position are largely due to increased sewage disposal, capacity charge and other operating revenues. Restricted net position decreased by 3.0 percent or $7.2 million in 2019 to $230.6 million from $237.8 million in 2018. Unused bond proceeds and bond reserves were lower in 2019. The unrestricted net position increased by $18.4 million in 2019 to $173.2 million from $154.8 million in 2018.

In 2018, the net position increased by 7.0 percent or $49.1 million to $745.7 million from $696.6 million in 2017. Restricted net position increased by 0.8 percent or $1.9 million in 2018 to $237.8 million from $235.9 million in 2017. The unrestricted net position decreased by $125.2 million in 2018 to $154.8 from $280.0 million in 2017. This reduction reflects the use of substantially all the $144.9 million Brightwater judgement awarded to the County in 2016 to fund an escrow for the defeasance of debt.

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

Comparative data, stated in millions of dollars:

	Years Ended December 31,		
	2019	2018	2017
Sewage treatment fees	$ 415.3	$ 403.6	$ 401.7
Capacity charge revenue	102.1	86.8	82.6
Other revenue	19.0	19.1	18.3
Operating revenues	536.4	509.5	502.6
Operating expenses	323.3	318.1	318.1
Operating income	213.1	191.4	184.5
Nonoperating (expenses)	(132.1)	(142.6)	(126.1)
Grant revenues	-	0.3	-
Change in net position	81.0	49.1	58.4
Net position beginning of year	745.7	696.6	638.2
Net positon end of year	$ 826.7	$ 745.7	$ 696.6

While the statements of net position show changes in assets, liabilities, deferred inflows/outflows of resources and net position, the statements of revenues, expenses and changes in net position provide insight into the source of these changes.

During 2019, operating revenues increased by 5.3 percent or $26.9 million to $536.4 million from $509.5 million in 2018. Operating expenses increased by 1.6 percent or $5.2 million to $323.3 million in 2019 from $318.1 million in 2018.

In 2018, operating revenues increased by 1.4 percent or $6.9 million to $509.5 million from $502.6 million in 2017. Operating expenses stayed the same at $318.1 million in 2018 and 2017.

Operating Revenues

In 2019, sewage disposal fee revenue increased by $11.7 million, 2.9 percent, to $415.3 million from $403.6 million in 2018 due to a 2.5 percent rate increase and an increased number of RCE's. Water Quality charged a monthly sewage treatment rate of $45.33 per RCE in 2019, and $44.22 in both 2018 and 2017. In 2018, sewage disposal revenues increased by 0.5 percent, or $1.9 million, to $403.6 million from $401.7 million in 2017.

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

Operating Revenues (continued)

A 3.0 percent increase in the 2019 capacity charge rate for new customers, continued growth in new connections and an increase in early payoff revenues contributed to a 17.6 percent, or $15.3 million, increase in overall capacity charge revenue of $102.1 million. In 2018, capacity charge revenue increased by 5.1 percent to $86.8 million from $82.6 million in 2017. Capacity charge early payoffs accounted for 30.6 percent of the 2019 capacity charge revenue compared to 25.5 percent in 2018 and 28.6 percent in 2017. This increase is attributable to the higher early payoff discount rate in 2019.

Other operating revenues totaling $19.0 million in 2019 decreased $100 thousand, or 0.5 percent, evidenced in an offset between bio-methane and methane sales. In 2018, other operating revenue increased 4.4 percent, or $800 thousand to $19.1 million from $18.3 million in 2017 due primarily to high strength surcharges in industrial waste.

Operating Expenses

In 2019, operating expenses, excluding depreciation, rose 3.1 percent or $4.3 million to $143.8 million compared to a 1.1 percent decrease, or $139.5 million in 2018. This change is due primarily to price increases on chemicals, large operating repairs and labor.

Utility and Service costs decreased 6.3 percent, or $2.4 million from $38.0 million in 2018 to $35.6 million in 2019. Utility and Service costs in 2018 increased 5.3 percent or $1.9 million from $36.1 million to $38.0 million. Electricity costs in 2019 rose by 2.7 percent, or $376 thousand, to $15.1 million from $14.7 million in 2018. In 2019, Water Quality continued to sell its methane rather than use it to generate electricity at South Treatment Plant. In 2018, electricity costs increased by 3.5 percent or $494 thousand to $14.7 million. Chemical costs increased $988 thousand or 10.6 percent in 2019 from $8.5 million to $9.4 million. In 2018, chemical costs rose $394 thousand or 4.9 percent from $8.1 million to $8.5 million. These essential operational costs are subject to market price fluctuation.

Intragovernmental expenses rose 0.3 percent, to $39.5 million in 2019 from $39.4 million in 2018. Increases in technology and insurance services were offset by decreases in GIS and legal services. In 2018, intragovernmental expenses grew 0.5 percent or $276 thousand, to $39.4 million from $39.2 million in 2017.

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

Non-operating Revenues and Expenses

Non-operating expenses (net) decreased by $10.5 million to $132.1 million in 2019 from $142.6 million in 2018. Higher investment earnings, lower short-term interest rates and fewer capital retirements contributed to the decrease. In 2018, non-operating expenses (net) increased by $16.5 million to $142.6 million from $126.1 million in 2017. Main contributors to the net increase were higher interest expense for variable rate debt and legal costs related to environmental remediation offset by increased investment earnings and a $10.1 million insurance recovery in 2017 on the West Point Treatment Plant flood event.

Capital Assets

At December 31, 2019, Water Quality's investment in capital assets, net of accumulated depreciation, was $4,112.8 million, reflecting an increase of $16.7 million or 0.4 percent more than the balance of $4,096.1 million at December 31, 2018. Capital assets net increase from December 31, 2017 to December 31, 2018 was $18.3 million or 0.4 percent.

Large 2019 construction project expenditures include:

- $44.3 million for Georgetown Wet Weather Treatment Station
- $23.6 million for Eastside Interceptor Phase 11
- $15.8 million for Sunset and Heathfield Pump Stations and Force Main Upgrade
- $ 7.8 million for North Mercer Island and Enatai Interceptor upgrade
- $ 7.1 million for Ovation Control Systems upgrade

Large 2018 construction project expenditures include:

- $33.1 million for Georgetown Wet Weather Treatment Station
- $26.3 million for Sunset and Heathfield Pump Stations and Force Main Upgrade
- $17.9 million for Magnolia CSO Control Improvements
- $12.2 million for Pacific Pump Station and Auburn West Interceptor (Kent Auburn Phase B)
- $ 7.3 million for North Mercer Island and Enatai Interceptor Upgrade

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

Debt Administration

In January of 2019, Water Quality voluntarily redeemed $1.6 million of principal on its Junior Lien Sewer Revenue Bonds, Series 2015A and 2015B. This is part of a financial practice whereby variable rate debt will be amortized so that each issue will be retired by its stated maturity date.

In June of 2019, Water Quality issued $148.1 million in Multi-Modal Limited Tax General Obligation Refunding Bonds, Series 2019A and Series 2019B to refund Junior Lien Sewer Revenue Bonds, Series 2015A and Series 2015B, and Junior Lien Sewer Revenue Bonds, Series 2017.

On October 7, 2019, Water Quality purchased and deposited Treasury securities in an irrevocable escrow to defease $22.5 million of outstanding Sewer Revenue and Refunding Bonds, Series 2012C, and $64.6 million of Limited Tax General Obligation Bonds, Series 2012B and Series 2012C. The escrow was funded from operations and excess bond reserves.

On October 24, 2019, Water Quality issued $101.0 million of Limited Tax General Obligation Bonds, Series 2019 with an average life of 13.2 years at an interest rate of 5.0 percent and an effective rate of 2.6 percent. This debt issue provided $128.2 million of proceeds for the capital program.

In January of 2018, Water Quality voluntarily redeemed $920 thousand of principal on its Junior Lien Sewer Revenue bonds, Series 2015A and 2015B. This is part of a financial practice whereby variable rate debt will be amortized so that each issue will be retired by its stated maturity date.

In April of 2018, Water Quality entered into a WIFIA loan agreement with the EPA for $134.5 million at a 3.1 percent interest rate. Draws on this loan will reimburse costs on the Georgetown Wet Weather Treatment Station through January of 2023. No draws were taken on the loan in 2019 and 2018.

On October 25, 2018, Water Quality purchased and deposited Treasury securities in an irrevocable escrow to defease $135.8 of outstanding Sewer Revenue and Refunding Bonds, Series 2010, 2011B and 2012. The escrow was funded using the bulk of the $144.9 million Brightwater judgement awarded in 2016. On November 5, 2018 Water Quality sold $124.5 million of sewer revenue bonds with an average life of 7.9 years at an interest rate of 5.0 percent and an effective rate of 3.0 percent. This debt issue provided $142.0 million of proceeds for the capital program.

On December 3, 2018, Water Quality remarketed $100.0 million of Junior Lien Variable Rate Demand Sewer Revenue Bond, Series 2011 with an average life of 2 years at an average rate of 2.5 percent and an effective rate of 2.6 percent. Additionally, Water Quality remarketed $100.0 million of Junior Lien Variable Rate Demand Sewer Revenue Bond, Series 2012 with an average life of 3 years at an average rate of 2.6 percent and an effective rate of 2.7 percent. On the mandatory repurchase dates of December 1, 2020 and December 1, 2021, respectively, Water Quality may affect a conversion of the Series to another authorized interest rate mode. Maturity dates on both remain at January 1, 2042 and January 1, 2043, respectively.

Debt Administration (continued)

Water Quality has $2.6 billion of sewer revenue bonds and variable rate revenue bonds outstanding at the end of 2019 and had $2.8 billion of sewer revenue bonds and variable rate revenue bonds outstanding at the end of 2018. 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 2019, Water Quality has $839.4 million of general obligation bonds and variable rate general obligation bonds outstanding and had $676.6 million of general obligation bonds and variable rate general obligation bonds outstanding at the end of 2018. 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 AA+ from Standard and Poor's (S&P) Global Ratings and Aa1 from Moody's Investors Service were affirmed in June 2019. Water Quality's bond ratings on its limited tax general obligation bonds of AAA by Standard and Poor's and Aaa by Moody's Investors Service were affirmed in October 2019.

As required by bond covenant, Water Quality maintains a bond reserve account, which is funded by cash, Treasury securities investment and surety bond policies. At December 31, 2019, the cash and investment balance in the reserve account was $140.4 million and with a surety bond balance of $29.6 million, totaling $170.0 million. This balance exceeded the reserve account requirement of maximum annual debt service on the parity bonds by $7.1 million. In October 2019, excess funds in the reserve account of $10.1 million were contributed to the defeasance of outstanding debt. At December 31, 2019 and 2018, respectively, the rate stabilization, liquidity, and asset management financial policy reserves totaled $81.7 million.

For more detailed information on debt, reference the notes to the financial statements.

Debt Service Coverage Ratios

	Year Ended December 31,	
	2019	2018
Parity and parity lien debt	1.85	1.72
Total debt	1.58	1.49

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 years ended December 31, 2019 and 2018. Questions concerning this report or requests for additional information should be addressed to Cheryl Lee, Chief Accountant for King County, 500 Fourth Avenue, Room 653, Seattle, WA 98104.

King County Water Quality Enterprise Fund
Statements of Net Position (in thousands)

	December 31, 2019	December 31, 2018
CURRENT ASSETS		
Cash and cash equivalents	$ 323,751	$ 240,584
Restricted cash and cash equivalents	4,531	2,757
Accounts receivable, net	40,145	38,807
Due from other funds	3,006	2,498
Inventory of supplies	9,625	9,545
Prepayments	11	368
	381,069	294,559
NONCURRENT ASSETS		
Restricted assets		
Cash and cash equivalents	273,412	295,889
Investments	15,727	15,038
	289,139	310,927
Capital assets		
Building and land improvements	2,176,357	2,147,297
Artwork	6,045	6,045
Infrastructure and right of way	2,473,263	2,420,740
Plant in service and other equipment	1,185,872	1,173,465
Less accumulated depreciation	(2,431,259)	(2,282,831)
	3,410,278	3,464,716
Land and easements	264,335	264,335
Construction work in progress	438,160	367,025
	4,112,773	4,096,076
Other noncurrent		
Regulatory assets, net of amortization	118,258	117,791
Other assets	6,586	6,575
	124,844	124,366
Total assets	4,907,825	4,825,928
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows on refunding	182,410	205,124
Deferred outflows on other postemployment benefits	36	41
Deferred outflows on pension	5,170	4,797
Deferred outflows on asset retirement	1,250	-
Total deferred outflows of resources	188,866	209,962
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 5,096,691	$ 5,035,890

See accompanying notes.

Statements of Net Position (continued) (in thousands)

	December 31, 2019	December 31, 2018
CURRENT LIABILITIES		
Accounts payable	$ 26,773	$ 29,177
Retainage payable	4,531	2,757
Due to other funds	24	37
Interest payable	68,569	67,307
Wages and benefits payable	4,678	3,430
Compensated absences	851	735
Taxes payable	15	36
Unearned revenue	2,966	2,475
State loans payable	17,348	16,538
General obligation bonds payable	22,900	21,760
Revenue bonds payable	62,675	63,170
Environmental remediation liability	4,561	4,825
Deposits and other liabilities	297	193
	216,188	212,440
NONCURRENT LIABILITIES		
Compensated absences	10,266	10,341
Other postemployment benefits	1,526	1,533
Net pension liability	5,962	17,200
State loans payable, net	208,873	212,936
General obligation bonds payable, net	900,270	725,138
Revenue bonds payable, net	2,748,909	3,009,327
Environmental remediation liability	39,947	41,729
Asset retirement obligation	1,500	-
Other liabilities	77,010	1,131
	3,994,263	4,019,335
Total liabilities	4,210,451	4,231,775
DEFERRED INFLOWS OF RESOURCES		
Regulatory credits - rate stabilization	46,250	46,250
Deferred inflows on other postemployment benefits	104	119
Deferred inflows on pension	13,168	12,012
Total deferred inflows of resources	59,522	58,381
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	4,269,973	4,290,156
NET POSITION		
Net investments in capital assets	422,889	353,122
Restricted for		
Debt service	153,850	163,364
Regulatory assets and environmental liabilities	76,763	74,488
Unrestricted	173,216	154,760
Total net position	$ 826,718	$ 745,734

See accompanying notes.

King County Water Quality Enterprise Fund
Statements of Revenues, Expenses, and Changes in Net Position (in thousands)

	Years Ended December 31, 2019	Years Ended December 31, 2018
OPERATING REVENUES		
Sewage disposal fees	$ 415,279	$ 403,589
Other operating revenues	121,170	105,961
Total operating revenues	536,449	509,550
OPERATING EXPENSES		
Sewage treatment, disposal, and transmission	106,891	101,681
General and administrative	36,944	37,904
Depreciation and amortization	179,547	178,517
Total operating expenses	323,382	318,102
OPERATING INCOME	213,067	191,448
NONOPERATING REVENUES (EXPENSES)		
Investment earnings	15,767	9,969
Interest expense	(138,563)	(142,283)
Loss on disposal and impairment of capital assets	(4,778)	(8,714)
Loss on extinguishment of debt	(5,451)	(1,786)
Other	942	269
Total nonoperating expenses	(132,083)	(142,545)
INCOME BEFORE GRANTS	80,984	48,903
Capital grants	-	273
CHANGE IN NET POSITION	80,984	49,176
NET POSITION		
Beginning of year (restated)	745,734	696,558
End of year	$ 826,718	$ 745,734

See accompanying notes.

Statements of Cash Flows (in thousands)

	Years Ended December 31, 2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers	$ 541,372	$ 541,476
Cash received from other funds - internal services	1,574	1,816
Cash payments to suppliers for goods and services	(52,270)	(56,354)
Cash payments to other funds - internal services	(39,486)	(39,437)
Cash payments for employee services	(60,309)	(58,161)
Other receipts	76,177	5
Other payments	(18,730)	(12,449)
Net cash provided by operating activities	448,328	376,896
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Transfers out	(960)	(982)
Assistance to other agencies	-	(494)
Net cash used in noncapital financing activities	(960)	(1,476)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Acquisition of capital and other utility assets	(191,922)	(212,376)
Proceeds from disposal of capital assets	57	430
Principal paid on capital debt	(103,850)	(102,207)
Interest paid on capital debt	(150,008)	(153,484)
Proceeds of new bond issuance	128,218	142,037
Proceeds of state loans	13,997	27,843
Cash payments for bond defeasance	(96,288)	(144,199)
Capital grants received	-	15
Net cash used in capital and related financing activities	(399,796)	(441,941)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest on investments	15,581	9,637
Investment purchases	(689)	(15,000)
Net cash provided by (used in) investing activities	14,892	(5,363)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	62,464	(71,884)
CASH AND CASH EQUIVALENTS		
Beginning of year	539,230	611,114
End of year	$ 601,694	$ 539,230

See accompanying notes.

King County Water Quality Enterprise Fund
Statements of Cash Flows (in thousands)

	Years Ended December 31, 2019	Years Ended December 31, 2018
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Operating income	$ 213,067	$ 191,448
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	167,777	175,699
Other nonoperating revenue and expense	2,658	9,036
Changes in assets		
Accounts receivable	(1,338)	15,636
Due from other funds	(1)	-
Inventory of supplies	(80)	(14)
Prepayments	357	211
Other assets	(476)	(805)
Changes in deferred outflows of resources		
Deferred outflows on other postemployment benefits	5	(41)
Deferred outflows on pension	(373)	969
Deferred outflows on asset retirement	251	-
Changes in liabilities		
Accounts payable	826	(2,107)
Retainage payable	41	163
Due to other funds	(14)	12
Taxes payable	(21)	20
Unearned revenue	491	150
Wages and benefits payable	1,091	331
Compensated absences	40	(188)
Other postemployment benefits	(7)	(118)
Net pension liability	(11,238)	(17,912)
Other liabilities	74,130	99
Changes in deferred inflows of resources		
Deferred inflows on other postemployment benefits	(14)	119
Deferred inflows on pension	1,156	4,188
Total adjustments	235,261	185,448
NET CASH PROVIDED BY OPERATING ACTIVITIES	$ 448,328	$ 376,896

NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES

Water Quality reported capital grants on account of $258 thousand at 2018 year-end and no capital grants in 2019.

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 comprehensive annual financial report. 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 40 percent of total sewage disposal fees in 2019 and in 2018.

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 $39.5 million and $39.4 million in 2019 and 2018, respectively.

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 surplus balances held with the King County Treasurer in the King County Investment Pool (the Pool) except the amounts invested through the Pool-Plus program, cash with escrow agents or held in trust, and petty cash. 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.

Note 1 – Operations and Accounting Policies (continued)

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 and updated at year-end. These provisions are estimated based on actual historical write-off trends and knowledge of specific circumstances that indicate collection of an account may be unlikely. As of December 31, 2019 and 2018, Water Quality's allowance for doubtful accounts was $1.1 million and $997 thousand, respectively. Water Quality has the ability to place a lien on properties owned by customers for uncollected capacity charges. Water Quality reported notes receivable of $4.6 million at 2019 year-end and $4.3 million at 2018 year-end for capacity charge account balances over 365 days old.

c. **Due from and to other funds, interfund loans, and advances** – 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 are 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 building	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

Note 1 – Operations and Accounting Policies (continued)

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 2019 or 2018.

g. **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.

Water Quality accrues estimated excess compensation liabilities to the Washington State Department of Retirement Systems based on an employee's accrued vacation and sick leave. An excess compensation liability is incurred when an employee whose retirement benefits are based in part on excess compensation receives a termination or severance payment defined by the State as excess compensation. This includes, but is not limited to, a cash-out of unused annual leave in excess of 240 hours and a cash-out of any other form of leave.

h. **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, 2019 and 2018.

i. **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 the refunding of bonds and certain amounts related to pension, postemployment benefits other than pensions (OPEB) and asset retirement obligation accounting. Deferred inflows of resources include certain amounts related to pension and OPEB accounting and rate stabilization.

Note 1 – Operations and Accounting Policies (continued)

j. **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.

k. **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.

l. **Capital grant revenues** – Pursuant to GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, grant revenues are reported separately from operating and nonoperating revenues as capital grant revenues. Water Quality reported capital grant revenues of $273 thousand for the year ended December 31, 2018.

m. **Net position** – Resources set aside for debt service and other obligations, net of related liabilities, are classified as restricted net position on the statements of net position as their use is limited by externally-imposed restrictions. Net investments in capital assets are 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 borrowings attributable to the acquisition, construction, or improvement of those assets. Any net position not subject to classification as restricted or invested in capital assets is reported as unrestricted.

n. **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 the County's policy to consider restricted net position to have been depleted before unrestricted net position is applied.

o. **Use of estimates** – The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the 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, 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.

Note 1 – Operations and Accounting Policies (continued)

p. **Reclassification** – Certain reclassifications have been made to the prior year statements to conform to the current year presentation

New accounting standards – The following GASB pronouncements were implemented during the current year.

GASB Statement No. 83, *Certain Asset Retirement Obligations*, is effective for fiscal years beginning after June 15, 2018. This Statement addresses accounting and financial reporting for certain asset retirement obligations. Water Quality implemented the statement in 2019 and made reporting changes to meet the requirements.

GASB Statement No. 84, *Fiduciary Activities*, is effective for fiscal years beginning after December 15, 2018. This Statement improves guidance regarding the identification of fiduciary activities for accounting and financial reporting. The statement was implemented by Water Quality in 2019 with no material impact on its financial statements.

GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, is effective for fiscal years beginning after June 15, 2018. The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Water Quality implemented this statement in 2019 and made reporting changes to comply with the requirements.

GASB Statement No. 90, *Majority Equity Interests—an amendment of GASB Statements No. 14 and No. 61*, is effective for fiscal years beginning after December 15, 2018. This Statement improves financial reporting by providing users of financial statements with essential information related to presentation of majority equity interests in legally separate organizations that previously was reported inconsistently. In addition, requiring reporting of information about component units if the government acquires a 100 percent equity interest provides information about the cost of services to be provided by the component unit in relation to the consideration provided to acquire the component unit. This statement was adopted by Water Quality in 2019 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.

Note 2 – Deposits and Investments in King County Investment Pool (continued)

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.

Assessing Water Quality’s risk exposure, Water Quality’s cash and cash equivalents balance of $601.7 million and $539.2 million were fully invested in the Pool as of December 31, 2019 and 2018, respectively. The County had demand deposits of $39.9 million as of December 31, 2019, of which $13.7 million was exposed to custodial credit risk as uninsured and uncollateralized. As of December 31, 2018, the County had demand deposits of $29.1 million, of which $6.9 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.

Note 2 – Deposits and Investments in King County Investment Pool (continued)

The Pool is used for the liquidity portion of the portfolio while the following investment types are used for the longer term investments:

- U.S. treasuries or securities with full faith and credit of the U.S. government backing them.
- Senior debt obligations issued by U.S. agencies, instrumentalities, or government-sponsored enterprises such as Federal National Mortgage Association (FNMA), Federal Home Loan Bank (FHLB), Federal Farm Credit Bank (FFCB), and Federal Home Loan Mortgage Corporation (FHLMC). While these agencies have credit ratings equivalent to the U.S. government, they are not explicitly guaranteed by the U.S. government. Financial market participants view them as having an “implied guarantee” because these agencies were chartered by Congress.

Water Quality participated in the Pool-Plus program starting in 2018 and recorded Individual Investments at fair value of $15.6 million and $15.0 million as of December 31, 2019 and 2018. Water Quality accrued $99 thousand interest on its investments at 2019 year-end. 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 (dollars in thousands):

	Fair Value	Principal	Average Interest Rate	Effective Duration (Yrs)
2019				
Investment type				
U.S. Treasury notes	$ 15,628	$ 15,262	2.53%	4.200
2018				
Investment type				
U.S. Treasury notes	$ 15,038	$ 15,321	2.45%	4.160

The U.S. Treasury notes are valued using quoted prices in active markets. The U.S. Treasury notes with AA credit rating is 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, 2019, the Pool was not rated by a Nationally Recognized Statistical Rating Organization (NRSRO). In compliance with state statutes, Pool policies authorize investments in 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 depositaries, repurchase agreements, and the Local Government Investment Pool managed by the Washington State Treasurer’s office.

Note 2 – Deposits and Investments in King County Investment Pool (continued)

The Pool's policies limit the maximum amount that can be invested in various securities. At 2019 and 2018 year-end the Pool was in compliance with these policies. The Pool's actual composition, as of December 31, 2019 and 2018, is as follows (in thousands):

	2019		2018	
	Total	Allocation Percentage	Total	Allocation Percentage
Investment type				
Repurchase agreements	$ 242,000	3.25%	$ 366,000	4.91%
Commercial paper	545,325	7.32%	576,197	7.73%
U.S. Agency discount notes	408,240	5.48%	73,880	0.99%
Supranational discount notes	49,956	0.67%	49,927	0.67%
Corporate notes	661,244	8.88%	964,179	12.93%
Corporate notes floating rate	213,653	2.87%	99,948	1.34%
U.S. Treasury notes	2,768,359	37.15%	2,873,869	38.53%
U.S. Agency notes	456,309	6.13%	648,763	8.70%
U.S. Agency collateralized mortgage obligations	3,444	0.05%	4,031	0.05%
Supranational coupon notes	1,476,026	19.81%	1,212,097	16.25%
State treasurer's investment pool	625,256	8.39%	589,306	7.90%
	$ 7,449,812	100.00%	$ 7,458,197	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 2019 year-end the Pool had concentrations greater than 5.0 percent of the total investment pool portfolio in the following issuer: International Bank Recon, 8.3 percent. The issues with concentrations greater than 5.0 percent of the pool portfolio at 2018 year-end were as follows: International Bank Recon, 7.3 percent, and Bank of Montreal, 5.4 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 0.919 years and 0.943 years at December 31, 2019 and 2018, respectively.

Note 2 – Deposits and Investments in King County Investment Pool (continued)

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, 2019 and 2018.

KING COUNTY INVESTMENT POOL

		Fair Value Measurement Using		
Investments by Fair Value Level	Fair Value 12/31/2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Commercial paper	$ 545,325	$ -	$ 545,325	$ -
U.S. agency discount notes	408,240	-	408,240	-
Corporate notes	661,244	-	661,244	-
Corporate notes floating rate	213,653	-	213,653	-
U.S. treasury notes	2,768,359	2,768,359	-	-
U.S. agency notes	456,309	-	456,309	-
Supranational discount notes	49,956	-	49,956	-
U.S. agency collateralized mortgage obligations	3,444	-	3,444	-
Supranational coupon notes	1,476,026	-	1,476,026	-
Subtotal	6,582,556	$ 2,768,359	$ 3,814,197	$ -
Investments Measured at Amortized Cost (Not Subject to Fair Value Hierarchy)				
Repurchase agreements	242,000			
State treasurer's investment pool	625,256			
Subtotal	867,256			
Total investment in Investment Pool	$ 7,449,812			

Note 2 – Deposits and Investments in King County Investment Pool (continued)

KING COUNTY INVESTMENT POOL

		Fair Value Measurement Using		
Investments by Fair Value Level	Fair Value 12/31/2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Commercial paper	$ 576,197	$ -	$ 576,197	$ -
U.S. agency discount notes	73,880	-	73,880	-
Corporate notes	964,179	-	964,179	-
Corporate notes floating rate	99,948	-	99,948	
U.S. treasury notes	2,873,869	2,873,869	-	-
U.S. agency notes	648,763	-	648,763	-
Supranational discount notes	49,927		49,927	
U.S. agency collateralized		-		
mortgage obligations	4,031	-	4,031	-
Supranational coupon notes	1,212,097	-	1,212,097	-
Subtotal	6,502,891	$ 2,873,869	$ 3,629,022	$ -
Investments Measured at Amortized Cost (Not Subject to Fair Value Hierarchy)				
Repurchase agreements	366,000			
State treasurer's investment pool	589,306			
Subtotal	955,306			
Total investment in Investment Pool	$ 7,458,197			

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 $277.9 million and investments of $15.7 million at December 31, 2019, and cash and cash equivalents of $298.6 million and investments of $15.0 million at December 31, 2018, to comply with bond covenants and other requirements.

Liability amounts payable from restricted assets primarily consist of escrow and in-house retainage payables. These amounted to $4.5 million and $2.8 million at December 31, 2019 and 2018, respectively. The details of cash and cash equivalents and restricted assets as of December 31, 2019 and 2018 are as follows (in thousands):

	2019	2018
Unrestricted cash and cash equivalents		
Operating funds	$ 41,567	$ 42,064
Construction funds	39,520	31,764
Bond funds	133,933	131,912
Unallocated insurance recoveries	73,304	-
Policy reserves	35,427	34,844
Total unrestricted cash and cash equivalents	323,751	240,584
Restricted cash and cash equivalents		
Bond reserves	124,638	135,454
SRF loan reserves	13,485	12,873
Bond proceeds committed to construction	89,039	101,312
Retainage	4,531	2,757
Rate stabilization reserve	46,250	46,250
Total restricted cash and cash equivalents	277,943	298,646
Total cash and cash equivalents	601,694	539,230
Restricted investments		
Bond reserves	15,727	15,038
Total restricted assets - cash and cash equivalents and investments	$ 293,670	$ 313,684

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.

Note 4 – Risk Management (continued)

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 less than one thousand during 2019 and $52 thousand during 2018. 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 – Long-Term Liabilities and Notes Payable

Sewer revenue bonds – As of December 31, 2019, bonds outstanding include $2,572.7 million of serial and term bonds maturing from January 1, 2020, through January 1, 2052, bearing interest at stated rates of 1.0 percent to 5.0 percent per annum.

In January of 2019, the County voluntarily redeemed $1.6 million of principal on its Junior Lien Sewer Revenue bonds, Series 2015A and Series 2015B.

On October 7, 2019, the County purchased Treasury securities at a cost of $24.9 million and placed them in an escrow to pay interest and redeem at their earliest redemption dates $22.5 million of outstanding Sewer Revenue and Refunding Bonds, Series 2012C. Under the terms of the authorizing ordinances, these bonds have been defeased and are no longer secured by a pledge of the revenue of the sewer system. The defeasance of these bonds will reduce future principal and interest payments by $35.0 million through January 1, 2032. Funding for the escrow came from operations and excess in bond reserves. Water Quality undertook the defeasance in order to reduce future debt service.

In January of 2018, the County voluntarily redeemed $920 thousand of principal on its Junior Lien Sewer Revenue bonds, Series 2015A and Series 2015B.

Note 5 – Long-Term Liabilities and Notes Payable (continued)

On October 25, 2018, the County purchased Treasury securities at a cost of $144.2 million and placed them in an escrow to pay interest and redeem at their earliest redemption dates of $135.8 million of outstanding Sewer Revenue and Refunding Bonds, Series 2010, 2011B and 2012. Under the terms of the authorizing ordinances, these bonds have been defeased and are no longer secured by a pledge of the revenue of the sewer system. The defeasance of these bonds will reduce future principal and interest payments by $193.6 million through 2032. Substantially all of the funding for the escrow came from the judgement awarded to Water Quality in 2016 relating to the construction of the conveyance tunnels for its Brightwater treatment plant. Water Quality undertook the defeasance in order to reduce a portion of the debt that it had incurred as a result of the additional costs that led to the litigation and subsequent judgement.

On November 5, 2018, the County issued $124.5 million in sewer revenue bonds, Series 2018B with an effective interest cost of 3.0 percent and an average coupon interest rate of 5.0 percent.

In December 2018, the County remarketed two Junior Lien Variable Sewer Revenue Bonds, Series 2011 and 2012 at $100.0 million each. These were remarketed at a fixed rate of 2.5 and 2.6 percent, respectively, and are subject to mandatory repurchase in December 2020 and December 2021, respectively. The bonds maturity dates of January 1, 2042 and January 1, 2043, respectively, remain the same.

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 bonds are secured by a pledge of the revenue of the sewer system subject to payment of all operating and maintenance expenses of the sewer system. Payments from revenues of Water Quality are required to be made to the sewer revenue bond fund to pay interest and retire serial or term bonds on or before maturity. The amount required in the cash reserves and surety policies are based on the highest year of debt service over the life of all outstanding revenue bonds.

Note 5 – Long-Term Liabilities and Notes Payable (continued)

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

	Final Maturity	Interest Rates	Original Issue Amount	Outstanding at December 31, 2019
2001A-B Junior Lien Variable	1/1/32	(variable)	$ 100,000	$ 100,000
2010 Revenue and Refunding	1/1/50	2.00-5.00%	334,365	37,610
2011 Sewer Revenue	1/1/41	5.00%	175,000	8,190
2011 Series B	1/1/41	1.00-5.00%	494,270	45,890
2011 Series C	1/1/35	3.00-5.00%	32,445	7,885
2011 Sewer Junior Lien Variable	1/1/42	(variable)	100,000	100,000
2012A Refunding	1/1/52	5.00%	104,445	89,785
2012B Refunding	1/1/35	4.00-5.00%	64,260	64,260
2012C Refunding	1/4/33	2.50-5.00%	65,415	37,520
2012 Sewer Junior Lien Variable	1/1/43	(variable)	100,000	100,000
2013A Refunding	1/1/35	2.00-5.00%	122,895	103,515
2013B Revenue and Refunding	1/1/44	2.00-5.00%	74,930	56,865
2014A Refunding	1/1/47	5.00%	75,000	75,000
2014B Refunding	7/1/35	1.00-5.00%	192,460	181,490
2015A Refunding	7/1/47	3.00-5.00%	474,025	470,475
2015B Refunding	1/1/46	4.00-5.00%	93,345	75,985
2016A Refunding	7/1/41	4.00-5.00%	281,535	273,975
2016B Refunding	7/1/49	4.00-5.00%	499,655	492,005
2017A Refunding	7/1/49	5.00%	149,485	127,840
2018B Sewer Revenue	7/1/32	5.00%	124,455	124,455
			$ 3,657,985	$ 2,572,745

General obligation bonds – As of December 31, 2019, bonds outstanding include $839.4 million of serial and term bonds maturing January 1, 2020, through 2046, bearing interest at stated rates of 2.0 percent to 5.25 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.

On June 27, 2019, the County issued $148.1 million in Multi-Modal Limited Tax General Obligation Refunding Bonds, Series 2019A ($100.0 million) and Series 2019B ($48.1 million), to refund the County's Junior Lien Sewer Revenue Bonds, 2015 Series A and 2015 Series B, and Junior Lien Sewer Revenue Bonds, Series 2017. Both series of 2019 bonds are variable rate obligations, with daily interest rate resets for 2019A and weekly resets for 2019B. The projected net savings from this refunding are $4.5 million. The refunded 2015 and 2017 bonds were variable rate obligations with monthly resets of their interest rates.

Note 5 – Long-Term Liabilities and Notes Payable (continued)

On October 7, 2019, the County purchased Treasury securities at a cost of $71.4 million and placed them in an escrow to pay interest and redeem at their earliest redemption dates $64.6 million of outstanding Limited Tax General Obligations Refunding Bonds, Series 2012B and Series 2012C. Under the terms of the authorizing ordinances, these bonds have been defeased and are no longer secured by a pledge of the revenue of the sewer system. The defeasance of these bonds will reduce future principal and interest payments by $104.3 million through January 1, 2034. Funding for the escrow came from operations. Water Quality undertook the defeasance in order to reduce future debt service.

On October 24, 2019, the County issued $101.0 million in Limited Tax General Obligation Bonds, Series 2019A with an effective interest cost of 2.6 percent and an average coupon interest rate of 5.0 percent.

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

	Final Maturity	Interest Rates	Original Issue Amount	Outstanding at December 31, 2019
2008 LTGO	1/1/34	5.25%	$ 236,950	$ 21,020
2012A LTGO	1/1/25	2.00-5.00%	68,395	48,460
2012B LTGO	1/1/29	5.00%	41,725	30,500
2012F LTGO	12/1/22	2.20%	3,010	3,010
2015A LTGO	7/1/38	2.00-5.00%	247,825	247,395
2017A LTGO	1/1/34	4.00-5.00%	154,560	139,840
2017A-B Multi-Modal LTGO	1/1/40	(variable)	100,000	100,000
2019A LTGO	1/1/38	5.00%	101,035	101,035
2019A MM LTGO WQ	1/1/46	(variable)	100,000	100,000
2019B MM LTGO WQ	1/1/46	(variable)	48,095	48,095
			$ 1,101,595	$ 839,355

Prior year refunded and defeasance of debt – As of December 31, 2019, Water Quality had outstanding refunded and defeased general obligation bonds and sewer revenue bonds in the amount of $721.5 million. Water Quality defeased these bonds prior to 2019 and placed 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 administered by the Washington State Department of Commerce. The loans require either semi-annual or annual payments of principal and interest from 2020 through 2053 and bear interest at stated rates from 0.0 percent to 3.1 percent. As of December 31, 2019, the balance due on all state loans is $226.2 million and the unused portion of state loan agreements is $13.5 million. Water Quality maintains separate cash reserves of $13.5 million as of December 31, 2019. These reserves are treated as restricted, being required under the Revolving Fund Loan Program.

Note 5 – Long-Term Liabilities and Notes Payable (continued)

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) loan – Water Quality has a $134.5 million WIFIA loan agreement with the U.S. Environmental Protection Agency. No draws have been taken on this loan as of December 31, 2019. The WIFIA loan, 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.

At December 31, 2019, 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 1,2020	$ 62,675	$ 114,409	$ 22,900	$ 34,229	$ 17,348	$ 4,985	$ 256,546
January 1,2021	60,910	111,492	15,800	40,375	17,247	4,653	250,477
January 1,2022	69,690	108,668	29,885	39,313	16,549	4,319	268,424
January 1,2023	68,750	105,555	37,485	37,899	15,881	3,988	269,558
January 1,2024	67,275	102,306	28,055	36,239	16,335	3,651	253,861
January 1, 2025-2029	356,385	460,703	160,900	158,682	63,346	13,504	1,213,520
January 1, 2030-2034	548,705	359,202	195,405	113,873	54,019	6,379	1,277,583
January 1, 2035-2039	488,320	236,847	200,830	78,498	18,815	1,477	1,024,787
January 1, 2040-2044	563,465	125,171	-	39,986	2,122	729	731,473
January 1, 2045-2049	258,360	36,036	148,095	15,994	2,416	432	461,333
January 1, 2050-2053	28,210	2,162	-	-	2,144	104	32,620
	$ 2,572,745	$ 1,762,551	$ 839,355	$ 595,088	$ 226,222	$ 44,221	$ 6,040,182

The future annualized interest payments for the variable rate bonds are based on an interest rate of 5.4 percent, which represents 90 percent of the long-term interest rate assumed by the County for financial planning purposes. Interest payments on the Junior Lien Variable Sewer Revenue Bonds, Series 2011 and 2012, are based on the stated interest rates of 2.5 and 2.6 percent, respectively that will be paid through their mandatory purchase dates.

Note 5 – Long-Term Liabilities and Notes Payable (continued)

Variable rate general obligation and revenue bonds – The 2001 Series A and B Junior Lien Variable Rate Bonds are secured by a periodically renewable letter of credit in the amount of $101.7 million with Landesbank Hessen-Thuringen Girozentrale (Helaba) which will terminate should Water Quality default on any payments and other obligations under its reimbursement agreement with Helaba. In the event of a default, Helaba may demand immediate payment of all amounts owed to it, including any bonds that it has purchased from 2001 Series A and B bondholders. The letter of credit expires September 30, 2020.

The County's $100.0 million Limited Tax General Obligation Refunding Bonds (Payable from Sewer Revenues), Series 2017 A and B are direct placements and are secured by a subordinate lien on the net revenues of the system. Events of default under the continuing covenant agreement for the bond include nonpayment of amounts due and ratings downgrades below BBB/Baa2. The continuing covenant agreement expires on April 5, 2021.

The 2019 Series A and Series B Multi-Modal Variable Rate Bonds in the amount of $148.1 million are supported by a periodically renewable standby bond purchase agreement that expires on June 26, 2024.

The variable rate bonds, Series 2001A and B, Series 2017A and B and Series 2019 A and B have acceleration clauses (declaring outstanding balances immediately due). The variable rate bonds, Series 2011, Series 2012, and Series 2017 A and B do not have liquidity facilities.

Financial policy reserves – In addition to bond reserves related to Sewer Revenue Bonds, Water Quality maintains liquidity and asset management reserves totaling $35.4 million at December 31, 2019.

Compliance with bond resolutions – With respect to the year ended December 31, 2019, Water Quality complied with all financial covenants stipulated by its bond resolutions.

Note 5 – Long-Term Liabilities and Notes Payable (continued)

Changes in long-term liabilities – Long-term liability activity for the years ended December 31, 2019 and 2018 was as follows (in thousands):

	Balance January 1, 2019	Additions	Reductions	Balance December 31, 2019	Due Within One Year
Bonds payable	$ 3,384,125	$ 249,130	$ (321,155)	$ 3,312,100	$ 85,575
Direct placements-bonds payable	100,000	-	-	100,000	-
Bond premiums and discounts	335,270	18,993	(31,609)	322,654	-
Total bonds payable	3,819,395	268,123	(352,764)	3,734,754	85,575
Direct borrowings-state loans	229,474	13,997	(17,250)	226,221	17,348
Compensated absences	11,076	11,281	(11,240)	11,117	851
Other post-employment benefits	1,533	82	(89)	1,526	-
Net pension liability	17,200	25,313	(36,551)	5,962	-
Environmental remediation	46,554	2,313	(4,359)	44,508	4,561
Asset retirement obligations	1,500	-	-	1,500	-
Other liabilities	1,319	76,177	(194)	77,302	292
Total long-term liabilities	$ 4,128,051	$ 397,286	$ (422,447)	$ 4,102,890	$ 108,627

	Balance January 1, 2018	Additions	Reductions	Balance December 31, 2018	Due Within One Year
Bonds payable	$ 3,481,265	$ 324,455	$ (421,595)	$ 3,384,125	$ 84,930
Direct placements-bonds payable	100,000	-	-	100,000	-
Bond premiums and discounts	358,944	6,512	(30,186)	335,270	-
Total bonds payable	3,940,209	330,967	(451,781)	3,819,395	84,930
State loans	218,044	27,843	(16,413)	229,474	16,538
Compensated absences	11,265	10,934	(11,123)	11,076	735
Other post-employment benefits	1,652	635	(754)	1,533	-
Net pension liability	35,112	19,675	(37,587)	17,200	-
Environmental remediation	46,460	9,658	(9,564)	46,554	4,825
Other liabilities	1,355	174	(210)	1,319	188
Total long-term liabilities	$ 4,254,097	$ 399,886	$ (527,432)	$ 4,126,551	$ 107,216

Note 6 – Asset Retirement Obligations

In 2019, 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 range from four to twenty-two 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 years ended December 31, 2019 and 2018, are shown in the following table (in thousands):

	Balance January 1, 2019	Increases	Decreases	Balance December 31, 2019
Land	$ 248,766	$ -	$ -	$ 248,766
Easements	15,569	-	-	15,569
Construction work in progress	367,025	206,544	(135,409)	438,160
Total nondepreciable assets	631,360	206,544	(135,409)	702,495
Buildings	2,023,118	15,792	(3,975)	2,034,935
Improvements other than building	124,179	17,243	-	141,422
Artwork	6,045	-	-	6,045
Right of way	7,635	-	-	7,635
Infrastructure	2,413,105	54,264	(1,741)	2,465,628
Equipment	1,137,834	30,877	(18,470)	1,150,241
Software development	35,631	-	-	35,631
Total depreciable assets	5,747,547	118,176	(24,186)	5,841,537
Accumulated depreciation and amortization				
Building	(807,796)	(52,777)	2,712	(857,861)
Improvements other than building	(36,420)	(4,611)	-	(41,031)
Artwork	(1,490)	(206)	-	(1,696)
Right of way	(1,581)	(218)	-	(1,799)
Infrastructure	(669,420)	(50,524)	485	(719,459)
Equipment	(730,493)	(59,441)	16,152	(773,782)
Software development	(35,631)	-	-	(35,631)
Total depreciation and amortization	(2,282,831)	(167,777)	19,349	(2,431,259)
Depreciable assets - net	3,464,716	(49,601)	(4,837)	3,410,278
Total capital assets - net	$ 4,096,076	$ 156,943	$ (140,246)	$ 4,112,773

Note 7 – Changes in Capital Assets (continued)

	Balance January 1, 2018	Increases	Decreases	Balance December 31, 2018
Land	$ 244,275	$ 5,322	$ (831)	$ 248,766
Easements	15,382	187	-	15,569
Construction work in progress	389,354	214,930	(237,259)	367,025
Total nondepreciable assets	649,011	220,439	(238,090)	631,360
Buildings	2,002,571	29,228	(8,681)	2,023,118
Improvements other than building	112,205	11,991	(17)	124,179
Artwork	6,045	-	-	6,045
Right of way	7,635	-	-	7,635
Infrastructure	2,289,446	128,852	(5,193)	2,413,105
Equipment	1,109,879	42,003	(14,048)	1,137,834
Software development	35,631	-	-	35,631
Total depreciable assets	5,563,412	212,074	(27,939)	5,747,547
Accumulated depreciation and amortization				
Building	(758,399)	(52,915)	3,518	(807,796)
Improvements other than building	(32,187)	(4,249)	16	(36,420)
Artwork	(1,284)	(206)	-	(1,490)
Right of way	(1,363)	(218)	-	(1,581)
Infrastructure	(622,772)	(49,628)	2,980	(669,420)
Equipment	(683,902)	(59,918)	13,327	(730,493)
Software development	(34,731)	(900)	-	(35,631)
Total depreciation and amortization	(2,134,638)	(168,034)	19,841	(2,282,831)
Depreciable assets - net	3,428,774	44,040	(8,098)	3,464,716
Total capital assets - net	$ 4,077,785	$ 264,479	$ (246,188)	$ 4,096,076

Note 8 – 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.

Note 8 – Environmental Remediation (continued)

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, 2019, stands at $44.5 million and $46.6 million in 2018.

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 9 – Regulatory Assets and Credits).

Note 9 – 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 2018 and remains unchanged in 2019.

Note 9 – Regulatory Assets and Credits (continued)

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.

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 7 years.

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.

Note 10 – Employee Benefit Plans

In accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, the County elected to use June 30, 2019 and 2018, respectively, as the measurement date for reporting net pension liability at 2019 and 2018 year-end, respectively.

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 years 2019 and 2018 (in thousands):

	Aggregate Pension Amounts—All Plans	
	2019	2018
Pension liabilities	$ 5,962	$ 17,200
Deferred outflows of resources	5,170	4,797
Deferred inflows of resources	13,168	12,012
Pension expense	(1,309)	(4,501)

Pension plans –Substantially all full-time and qualifying part-time employees of Water Quality participate in one of the following retirement plans: Public Employees' Retirement System (PERS) Plan 1, 2, and 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.

Note 10 – Employee Benefit Plans (continued)

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

The DRS CAFR may be obtained by writing to:

Department of Retirement Systems
Communications Unit
P.O. Box 48380
Olympia, WA 98540-8380

Or the DRS CAFR 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.

The PERS Plan 1-member contribution rate is established by State statute at 6 percent. The employer contribution rate is developed by the Office of the State Actuary and includes an administrative expense component that is currently set at 0.18 percent. Each biennium, the state Pension Funding Council adopts Plan 1 employer contribution rates. The PERS Plan 1 required contribution rates (expressed as a percentage of covered payroll) for 2019 and 2018 were as follows:

PERS Plan 1		
	Employer	Employee
Actual contribution rates		
January -June 2019	12.83%	6.00%
July - December 2019	12.86%	6.00%
January - August 2018	12.70%	6.00%
September - December 2018	12.83%	6.00%

Note 10 – Employee Benefit Plans (continued)

Water Quality's actual contributions to the plan were as follows for the years ended December 31 (in thousands):

	PERS Plan 1
2019	$ -
2018	26

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.

Note 10 – Employee Benefit Plans (continued)

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 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 2019 and 2018 were as follows:

PERS Plan 2/3		
	Employer	Employee
Actual contribution rates		
January - June 2019	12.83%	7.41%
July - December 2019	12.86%	7.90%
2019 Employee PERS Plan 3		Varies
January - August 2018	12.70%	7.38%
September - December 2018	12.83%	7.41%
2018 Employee PERS Plan 3		Varies

Water Quality's actual contributions to the plan were as follows for the years ended December 31 (in thousands):

	PERS Plans 2/3
2019	$ 9,145
2018	8,227

Actuarial assumptions – The total pension liability (TPL) for each of the DRS plans was determined using the most recent actuarial valuation completed in 2019 with a valuation date of June 30, 2018. The actuarial assumptions used in the valuation were based on the results of the Office of the State Actuary's (OSA) *2007-2012 Experience Study* and the *2017 Economic Experience Study*.

Additional assumptions for subsequent events and law changes are current as of the 2018 actuarial valuation report. The TPL was calculated as of the valuation date and rolled forward to the measurement date of June 30, 2019. Plan liabilities were rolled forward from June 30, 2018, to June 30, 2019, reflecting each plan's normal cost (using the entry-age cost method), assumed interest and actual benefit payments.

- Inflation: 2.75% total economic inflation; 3.50% salary inflation.
- Salary increases: In addition to the base 3.50% salary inflation assumption, salaries are also expected to grow by promotions and longevity.
- Investment rate of return: 7.4%.

Note 10 – Employee Benefit Plans (continued)

Mortality rates were based on the RP-2000 report's Combined Healthy Table and Combined Disabled Table, published by the Society of Actuaries. The OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using 100 percent Scale BB. Mortality rates are applied on a generational basis; meaning, each member is assumed to receive additional mortality improvements in each future year throughout his or her lifetime.

There were minor changes in methods and assumptions since the last valuation.

- OSA updated modeling to reflect providing benefit payments to the date of the initial retirement eligibility for terminated vested members who delay application for retirement benefits.

- OSA updated COLA programming to reflect legislation signed during the 2018 legislative session that provides PERS and TRS Plan 1 annuitants who are not receiving a basic minimum, alternate minimum, or temporary disability benefit with a one-time permanent 1.5% increase to their monthly retirement benefit, not to exceed a maximum of $62.50 per month.

Discount rate – The discount rate used to measure the total pension liability for all DRS plans was 7.4 percent.

To determine that rate, an asset sufficiency test included an assumed 7.5 percent long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. (All plans use 7.5 percent except LEOFF 2, which has assumed 7.4 percent). Consistent with the long-term expected rate of return, a 7.4 percent future investment rate of return on invested assets was assumed for the test. Contributions from plan members and employers are assumed to continue being made at contractually required rates (including PERS 2/3, PSERS 2, SERS 2/3, and TRS 2/3 employers, whose rates include a component for the PERS 1, and TRS 1 plan liabilities). Based on these 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 7.4 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 7.4 percent was determined using a building-block-method. In selecting this assumption, the OSA reviewed the historical experience data, considered the historical conditions that produced past annual investment returns, and considered capital market assumptions and simulated expected investment returns provided by the Washington State Investment Board (WSIB). The WSIB uses the capital market assumptions and their target asset allocation to simulate future investment returns over various time horizons.

Note 10 – Employee Benefit Plans (continued)

Estimated rates of return by asset class – 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, 2019, are summarized in the table below. 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%	2.20%
Tangible assets	7.00%	5.10%
Real estate	18.00%	5.80%
Global equity	32.00%	6.30%
Private equity	23.00%	9.30%
	100.00%	

Sensitivity of NPL – The table below presents Water Quality's proportionate share of the net pension liability calculated using the discount rate of 7.4 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 (6.4 percent) or 1-percentage point higher (8.4 percent) than the current rate (in thousands).

Year	Pension Plan	1% Decrease (6.4%)	Current Discount Rate (7.4%)	1% Increase (8.4%)
2018	PERS 1	$ 8,547	$ 6,955	$ 5,576
2018	PERS 2/3	46,861	10,245	(19,776)

Year	Pension Plan	1% Decrease (6.4%)	Current Discount Rate (7.4%)	1% Increase (8.4%)
2018	PERS 1	$ 8,547	$ 6,955	$ 5,576
2018	PERS 2/3	46,861	10,245	(19,776)

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

Note 10 – Employee Benefit Plans (continued)

Pension liabilities, pension expense, and deferred outflows of resources and deferred inflows of resources related to pensions – At June 30, 2019 and 2018, Water Quality reported a total pension liability of $6.0 million and $17.2 million, respectively, for its proportionate share of the net pension liabilities as follows (in thousands):

	Liability	
	2019	2018
PERS 1	$ 127	$ 6,955
PERS 2/3	5,835	10,245

At June 30, Water Quality's proportionate share of the collective net pension liabilities was as follows:

	Proportionate Share 6/30/18	Proportionate Share 6/30/19	Change in Proportion
PERS 1	0.16%	0.00%	(0.16%)
PERS 2/3	0.60%	0.60%	0.00%

	Proportionate Share 6/30/17	Proportionate Share 6/30/18	Change in Proportion
PERS 1	0.29%	0.16%	(0.13%)
PERS 2/3	0.62%	0.60%	(0.02%)

Employer contribution transmittals received and processed by the DRS for its fiscal year ended June 30 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.

The collective net pension liability was measured as of June 30, 2019 and 2018, respectively, and the actuarial valuation date on which the total pension liability is based was as of June 30, 2018 and 2017, respectively, with update procedures used to roll forward the total pension liability to the measurement date.

Pension expense – For the year ended December 31, 2019 and 2018, Water Quality recognized pension expense as follows (in thousands):

	Pension Expense	
	2019	2018
PERS 1	$ (6,559)	$ (6,391)
PERS 2/3	5,250	1,890
Total	$ (1,309)	$ (4,501)

Note 10 – Employee Benefit Plans (continued)

Deferred outflows of resources and deferred inflows of resources – At December 31, 2019 and 2018, Water Quality reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

	2019		2018	
PERS 1	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual investment earnings on pension plan investments.	$ -	$ 8	$ -	$ 276
Contributions subsequent to the measurement date.	13	-	549	-
Total	$ 13	$ 8	$ 549	$ 276

	2019		2018	
PERS 2/3	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience.	$ 1,672	$ 1,255	$ 1,256	$ 1,794
Net difference between projected and actual investment earnings on pension plan investments.	-	8,493	-	6,287
Changes of assumptions	149	2,448	120	2,915
Changes in proportion and differences between contributions and proportionate share of contributions.	287	964	423	740
Contributions subsequent to the measurement date.	3,049	-	2,449	-
Total	$ 5,157	$ 13,160	$ 4,248	$ 11,736

Note 10 – Employee Benefit Plans (continued)

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 net pension liability in the years ended December 31, 2020 and 2019. Other amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

	2019	
Year Ending December 31,	PERS 1	PERS 2/3
2020	$ (2)	$ (2,732)
2021	(4)	(4,505)
2022	(2)	(2,080)
2023	-	(1,181)
2024	-	(533)
Thereafter	-	(21)

	2018	
Year Ending December 31,	PERS 1	PERS 2/3
2019	$ 12	$ (1,043)
2020	(60)	(2,141)
2021	(181)	(3,912)
2022	(47)	(1,489)
2023	-	(591)
Thereafter	-	(761)

Note 11 – 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 years 2019 and 2018 (in thousands):

	OPEB Amounts	
	2019	2018
OPEB liabilities	$ 1,526	$ 1,533
Deferred outflows of resources	36	41
Deferred inflows of resources	104	119
OPEB expense	72	50

Note 11 – Other Post-Employment Benefits (continued)

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% 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% of their medical costs. The County pays benefits as they come due.

Employees covered by benefit terms – At December 31, 2019, the benefit terms covered the following employees:

Category	Count
Inactive employees, spouses, or beneficiaries currently receiving benefit payments	450
Inactive employees entitled to but not yet receiving benefit payment	-
Active employees	14,378
Total	14,828

Net OPEB liability – The County's net OPEB liability was measured as of December 31, 2019 and 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2018.

Actuarial assumptions – The total OPEB liability in the December 31, 2018, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

- Inflation: 2.50%.
- Salary increases: 3.00%.
- Healthcare cost trend rates: 7.00% in the first year, trending down to 3.84% over 56 years.
- Mortality rates were based on tables from the Society of Actuaries.
- Discount rate: The discount rate used to measure the total OPEB liability is 3.75%. 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.

Note 11 – Other Post-Employment Benefits (continued)

Changes in total OPEB liability – Water Quality's allocated changes in the total OPEB liability for the years ended December 31, 2019 and 2018, were as follows (in thousands):

	2019	2018
Total OPEB liability - beginning of year	$ 1,533	$ 1,652
Service cost	30	29
Interest	57	57
Difference between expected and actual experience	-	46
Change of assumptions	-	(133)
Benefit payments	(69)	(72)
Implicit rate subsidy fulfilled	(20)	(19)
Other changes	(5)	(27)
Net changes	(7)	(119)
Total OPEB liability - end of year	$ 1,526	$ 1,533

Sensitivity of the net OPEB liability to changes in the discount rate – The table below presents Water Quality's proportionate share of the net OPEB liability as well as what Water Quality's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.75%) or one percentage point higher (4.75%) than the current rate (in thousands).

Year	1% Decrease (2.75%)	Current Discount Rate (3.75%)	1% Increase (4.75%)
2019	$ 1,665	$ 1,526	$ 1,406
2018	1,676	1,533	1,407

Sensitivity of the net OPEB lability to changes in the healthcare cost trend rates – The table below presents Water Quality's proportionate share of the net OPEB liability as well as what Water Quality's proportionate share of the net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.00%) or one percentage point higher (8.00%) than current healthcare cost trend rates rate (in thousands).

Year	1% Decrease (6.00% Decreasing to 2.84%)	Trend Rate (7.00% Decreasing to 3.84%)	1% Increase (8.00% Decreasing to 4.84%%)
2019	$ 1,381	$ 1,526	$ 1,697
2018	1,396	1,533	1,691

Note 11 – Other Post-Employment Benefits (continued)

Deferred outflows of resources and deferred inflows of resources – At December 31, 2019 and 2018, Water Quality reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (in thousands):

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 36	$ -	$ 41	$ -
Changes of assumptions	-	104	-	119
Total	$ 36	$ 104	$ 41	$ 119

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB in the years ended December 31, 2019 and 2018 will be recognized as OPEB expense as follows (in thousands):

2019 Year Ending December 31,	Amount
2020	$ (9)
2021	(9)
2022	(9)
2023	(9)
2024	(9)
Thereafter	(23)

2018 Year Ending December 31,	Amount
2019	(9)
2020	(9)
2021	(9)
2022	(9)
2023	(9)
Thereafter	(33)

Note 12 – 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 $3.0 million and due to other funds of $24 thousand at December 31, 2019. Water Quality reported total due from other funds of $2.5 million and due to other funds of $37 thousand at December 31, 2018.

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 2019 and 2018, the transfers from Water Quality to other funds were $960 thousand and $982 thousand, respectively.

Note 13 – 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 is committed to expending approximately $93.3 million on active construction contracts as of December 31, 2019.

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:

- An administrative order issued by the Environmental Protection Agency (EPA) 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 EPA to amend the administrative order on a number of occasions to conduct additional studies, and have most recently negotiated a further amendment to design the remedy for one portion of the river. EPA issued a Record of Decision (ROD) in the latter part of 2014. The ROD contains EPA's final plan for cleanup of the Lower Duwamish Waterway. 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. If parties that participate in the allocation accept their allotted shares, they then expect to enter into a settlement agreement and to negotiate a consent decree with EPA to implement the 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 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 the County and Water Quality will be responsible for the cost of such remediation.

Note 13 – Commitments and Contingencies (continued)

- A potential requirement for more cleanup in the area contaminated when the Denny Way combined sewer outflow was replaced in 2005. Water Quality has performed interim cleanup costing $3.6 million to comply with a formal agreement with the Washington State Department of Ecology (DOE). Water Quality has recently engaged in negotiations with 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 DOE may select. The County is unable to determine an amount, if any, for which Water Quality may be responsible.

- Potential claims for past and future cleanup costs at the Harbor Island Superfund Site. Certain removal costs already incurred by the Port of Seattle are expected to be defrayed by the County and the City of Seattle. The City of Seattle, Port of Seattle and the County intend to negotiate the amount, if any, that the City and the County will contribute. This is an extremely complex negotiation for which the County is unable to determine an amount that Water Quality may be responsible for, if any. The parties have also agreed to share the cost of a supplemental investigation and feasibility study (RI/FS) required by the EPA. The supplemental RI/FS is now complete and awaiting final approval from EPA. A three-way agreement with the Port, the City and the County allocates to Water Quality a one-third pro rata share of the study costs although the costs may be reallocated among the parties or with other Potentially Responsible Parties (PRP) who may agree to participate in the study. The parties may also seek contribution from other PRP for the cost of the study. The EPA will not determine if, or the nature of, any additional remediation until the study is completed and approved. The County and three other PRP have negotiated a memorandum of agreements to implement a search for other responsible parties.

- A claim submitted by the County against a contractor and its performance bond surety over the project to repair and replace two miles of pipeline serving the rapidly developing area in the vicinity of Canyon Park. Pursuant to an agreement with DOE, Water Quality had to install a bypass system because the capital project was not completed by the onset of the 2016 wet season. The contractor submitted a request for change order of approximately $1.5 million based on its assertion that the contract dewatering and open-faced shield tunneling specifications were defective. The contractor also asserted that it was constructively suspended and stopped tunneling. Water Quality found the contractor in default, terminated the contract, made demand upon the performance bond surety, and procured a $20.0 million completion contract. Water Quality’s additional costs to complete the project and to repair consequential damages amounted to approximately $28.0 million. In December 2016, the County initiated a suit in King County Superior Court to recover the additional costs to complete the project from the contractor and its insurance company. The contractor has counter claimed for approximately $10 million asserting its change order claims and wrongful termination. Pre-trial motions were appealed to Washington State Supreme Court, and upon mandate back to King County Superior Court a new case schedule has been ordered and the trial date is set for March 2021.

Note 14 – Subsequent Event

In late March of 2020, Washington's Governor issued a stay-at-home order and the closing of all non-essential businesses in response to the COVID-19 pandemic. The "Stay Home-Stay Healthy" proclamation limited work activities to only those that are essential to protect public health and safety, in order to slow the spread of the COVID-19 virus. Despite the challenges brought by COVID-19, wastewater treatment is an essential service. The Water Quality enterprise is driven by its mission to protect public health and will continue to treat our region's sewage and ensure its infrastructure's resiliency. While it is too early to assess the financial impacts resulting from COVID-19 the Water Quality enterprise is developing mitigation strategies as the scale of impacts are better understood.

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)

	2019	2018	2017	2016	2015
County's proportion of the net pension liability	8.25%	8.56%	8.45%	8.90%	8.76%
County's proportionate share of the net pension liability	$ 317,333	$ 382,129	$ 400,803	$ 477,872	$ 458,477
Covered payroll	$ 10,835	$ 13,346	$ 15,426	$ 18,793	$ 22,880
County's proportionate share of the net pension liability as a percentage of covered payroll	2928.78%	2863.25%	2598.23%	2542.82%	2243.04%
Plan fiduciary net position as a percentage of the total pension liability	67.12%	63.22%	61.24%	57.03%	59.10%

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

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)

	2019	2018	2017	2016	2015
County's proportion of the net pension liability	10.06%	10.29%	10.14%	10.52%	10.36%
County's proportionate share of the net pension liability	$ 97,735	$ 175,728	$ 352,361	$ 529,855	$ 370,294
Covered payroll	$ 1,144,724	$ 1,072,968	$ 995,800	$ 953,254	$ 949,860
County's proportionate share of the net pension liability as a percentage of covered payroll	8.54%	16.38%	35.38%	55.58%	39.68%
Plan fiduciary net position as a percentage of the total pension liability	97.77%	95.77%	90.97%	85.82%	89.20%

* This schedule is to be built 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)

	2019	2018	2017	2016	2015
Contractually required contributions	$ 1,145	$ 1,448	$ 1,738	$ 1,901	$ 2,076
Contributions in relation to the contractually required contributions	1,145	1,448	1,738	1,901	2,076
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 8,918	$ 11,362	$ 14,569	$ 17,003	$ 20,440
Contributions as a percentage of covered payroll	12.84%	12.74%	11.93%	11.18%	10.16%

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

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

	2019	2018	2017	2016	2015
Contractually required contributions	$ 152,683	$ 140,712	$ 123,333	$ 109,269	$ 95,176
Contributions in relation to the contractually required contributions	152,683	140,712	123,333	109,269	95,176
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 1,188,641	$ 1,031,418	$ 1,031,418	$ 977,342	$ 933,304
Contributions as a percentage of covered payroll	12.85%	12.75%	11.96%	11.18%	10.20%

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

Notes to Pension Required Supplementary Information

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. For example, the actuarial valuation with a June 30, 2015, valuation date, completed in the fall of 2016, determines the ADC for the period beginning July 1, 2017, and ending June 30, 2019.

OSA calculates the ADC consistent with the methods described above. Adopted contribution rates could be different pending the actions of the governing bodies. For instance, for the period beginning July 1, 2017, and ending June 30, 2019, the contribution rates the Pension Funding Council adopted, which the Legislature did not change, reflect a phasing in of the increase to contribution rates that resulted from a change to the mortality assumption. This is the second of three biennia over which this increase is expected to be phased-in for PERS 1, PERS 2/3, and other pension plans.

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.

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

	2019	2018
Total OPEB liability - beginning of year	$ 111,412	$ 118,120
Service cost	2,155	2,092
Interest	4,138	4,147
Changes of benefit terms	-	-
Differences between expected and actual experience	-	3,332
Changes of assumptions	(4,953)	(9,652)
Benefit payments	(1,480)	(5,244)
Implicit rate subsidy fulfilled	-	(1,383)
Other changes	-	-
Net change in total OPEB liability	(140)	(6,708)
Total OPEB liability - end of year	$ 111,272	$ 111,412
Covered-employee payroll	$ 1,219,237	$ 1,217,867
Total OPEB liability as a percentage of covered payroll	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, and participation percentages.

Other Information

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)	1.85

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)	1.58

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)	1.44

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. In 2019, short-term interest rates rose to 2.11 percent in 2019 from 2.07 percent in 2018.

Coverage (1.10 required by covenant)	14.10

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)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Residential customer and residential customer Equivalents (RCEs) (annual average, rounded)	704,400	707,300	708,900	718,160	725,844	736,090	756,430	756,916	760,571	763,436
Percentage annual change	0.09%	0.41%	0.23%	1.31%	1.07%	1.41%	2.76%	0.06%	0.48%	0.00%
Operating revenues										
Sewage disposal fees	$ 269,498	$ 306,430	$ 307,143	$ 342,850	$ 346,591	$ 371,253	$ 381,513	$ 401,650	$ 403,589	$ 415,279
Rate stabilization	(15,814)	(25,523)	13,923	10,350	18,000	(12,000)	-	-	-	-
Capacity charge revenues	41,363	48,693	51,411	58,660	59,522	62,479	71,200	82,615	86,836	102,146
Other operating revenues	9,778	7,830	9,398	10,126	11,675	11,674	11,828	18,308	19,125	19,024
Total Operating Revenues	304,825	337,430	381,875	421,986	435,788	433,406	464,541	502,573	509,550	536,449
Operating and maintenance expenses [1)]	103,682	103,995	114,939	117,183	122,014	127,211	138,698	142,263	139,585	143,834
Add: GAAP adjustment [2)]	-	-	-	-	2,187	1,715	(2,377)	5,936	13,004	10,438
Net operating and maintenance expenses	103,682	103,995	114,939	117,183	124,201	128,926	136,321	148,199	152,589	154,272
Net operating revenue	201,143	233,435	266,936	304,803	311,587	304,480	328,220	354,374	356,961	382,177
Interest income [3)]	3,426	2,725	1,697	2,682	2,822	2,863	4,549	6,055	8,956	10,765
Net revenue available for debt service	204,569	236,160	268,633	307,485	314,409	307,343	332,769	360,429	365,917	392,942
Debt service										
Parity bonds	118,817	132,664	157,117	172,959	175,463	167,694	160,957	159,761	163,967	171,321
Parity lien obligations	26,838	32,910	38,626	43,064	42,876	40,348	53,164	52,650	49,121	41,529
Subordinate debt service	12,182	12,769	14,087	15,039	17,477	18,318	21,316	26,277	33,139	35,174
Total debt service	$ 157,837	$ 178,343	$ 209,830	$ 231,062	$ 235,816	$ 226,360	$ 235,437	$ 238,688	$ 246,227	$ 248,024
Debt service coverage										
On parity bonds	1.72	1.78	1.71	1.78	1.79	1.83	2.07	2.26	2.23	2.29
On parity bonds and parity lien obligations	1.40	1.43	1.42	1.36	1.44	1.48	1.55	1.70	1.72	1.85
On all sewer system obligations	1.30	1.32	1.28	1.33	1.33	1.36	1.41	1.51	1.49	1.58

1) 2014 operating expenses were restated as part of GASB Statements 68 and 71 implementation.
2) Non-cash GAAP adjustments consist of pension, other post-employment benefits and compensated absence accruals.
3) Interest Income excludes unrealized gains in the GASB Statement 31 market valuation adjustment.

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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, which comprise the statement of net position as of December 31, 2019, 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, and have issued our report thereon dated April 30, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the King County Water Quality Enterprise Fund's internal control over financial reporting (internal control) to determine the 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 King County Water Quality Enterprise Fund's internal control. Accordingly, we do not express an opinion on the effectiveness of the King County Water Quality Enterprise 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 have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the King County Water Quality Enterprise 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 determination of financial statement amounts. 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 30, 2020

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