



# **Board of Water Supply City and County of Honolulu**

**Financial Statements and Supplementary Information**

**June 30, 2023**



**Board of Water Supply  
City and County of Honolulu  
Index  
June 30, 2023**

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# **Board of Water Supply**

## **City and County of Honolulu**

### **Introduction (Unaudited)**

#### **Year Ended June 30, 2023**

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The Board of Water Supply of the City and County of Honolulu (“BWS”) is pleased to present its Annual Financial Report for fiscal year 2023. This introduction provides a brief overview of the mission, organization, and operations of the BWS. The following management’s discussion and analysis is intended to provide the reader with an easily understandable analysis of the BWS’s financial performance and all aspects of its financial position. Financial statements presenting the financial position, results of operations, and cash flows of the BWS in conformity with accounting principles generally accepted in the United States of America, accompanied by the independent auditors’ report, follows the management’s discussion and analysis.

#### **History of the Board of Water Supply**

The BWS was created in 1929 by the Territorial Legislature in response to public outcry for a truly effective water management system that was not influenced by politics. The 1929 Legislature passed Act 96 to create and define the powers and duties of the Honolulu Board of Water Supply. Although it remained as a department of the City and County of Honolulu (the “City”), the BWS was designed to be a semi-autonomous and self-supporting agency with the authority to charge for water usage to support its capital improvement and operating expenses and set long-term plans for Oahu’s water future.

#### **Powers, Duties and Functions**

The BWS manages Oahu’s municipal water resources and distribution system, providing residents with a safe, dependable and affordable drinking water supply. The BWS is the largest municipal water utility in the state of Hawaii. In fiscal year 2023, the BWS delivered potable and non-potable water to approximately one million customers on Oahu. The BWS carefully and proactively manages and invests in its intricate system, consisting of 94 active potable water sources, 172 reservoirs, and over 2,100 miles of pipeline.

The BWS is a financially self-sufficient, semi-autonomous agency of the City. Its operations and projects are financed with revenues generated by water transmission and distribution fees. It receives no tax money from the City. The BWS also pursues federal and state grants to help subsidize BWS projects.

The BWS is governed by a Board of Directors (“Board”), consisting of seven members. Five members are appointed by the Mayor and are confirmed by the Honolulu City Council. The remaining two serve in their capacities as the Director of the State Department of Transportation, and the Director and Chief Engineer of the City’s Department of Facility Maintenance. The Board appoints the BWS Manager and Chief Engineer to administer the BWS.

The BWS consists of the following ten divisions: Capital Projects Division, Customer Care Division, Field Operations Division, Finance Division, Information Technology Division, Land Division, Office of the Manager and Chief Engineer, Water Quality Division, Water Resources Division, and Water System Operations Division. There are also three staff offices in the Office of the Manager and Chief Engineer: Executive Support Office, Human Resources Office, and the Communications Office.

#### **Vision**

‘Ka Wai Ola – Water for Life’ – The vision of the BWS captures the critical need for water, which is the basis for life. With this vision comes the responsibility of the BWS’s stewardship of, and duty to manage, our natural water resources and watersheds for present and future generations.

# Board of Water Supply

## City and County of Honolulu

### Introduction (Unaudited)

#### Year Ended June 30, 2023

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#### Mission

The BWS mission is to provide a safe, dependable and affordable water supply now and into the future, focusing in three strategic areas: resource, operational and financial sustainability.

- **Resource Sustainability (Safe)** – Protect and manage Oahu’s water resources and watersheds now and into the future through adaptive and integrated strategies.
- **Operational Sustainability (Dependable)** – Manage and continuously refine an effective organization that can evolve and adapt its human and physical resources to provide dependable services.
- **Financial Sustainability (Affordable)** – Implement sound fiscal strategies to support our mission.

#### Accomplishments

BWS employees work diligently to provide safe, dependable and affordable water service to customers by concentrating their efforts to achieve the BWS’s strategic goals:

- **Resource Sustainability (Safe)**
  - Conducted 18,323 chemical tests, 21,329 microbiological tests, and collected 24,912 samples from BWS sources, distribution systems and treatment facilities to ensure all water served is safe to drink; tests performed during fiscal year 2023 include regulatory compliance testing, groundwater quality testing, and response to customer inquiries about water quality.
  - Responded, and continue to respond, to the Navy’s Red Hill Underground Bulk Fuel Storage Facility crisis that resulted in the closure of Hālawa Shaft, one of O’ahu’s largest pumping stations, and two additional wells in the ‘Aiea/Hālawa area; awarding of a design contract for exploratory wells in Waikele Gulch and construction contracts for exploratory wells in Mānoa and in ‘Aiea as possible replacement sources for the Hālawa Shaft due to the Red Hill fuel contamination.
  - In June 2023, BWS completed its annual production and delivery of the Consumer Confidence Report (“CCR”), also known as the Water Quality Report, to all BWS customers. The report provides information on the quality of the water delivered from the BWS system and was mailed to all customers on record and is also available at [www.boardofwatersupply.com](http://www.boardofwatersupply.com). The BWS also placed ads in Honolulu newspapers, including various ethnic language publications, to inform community members of the distribution.
  - Issued \$173,633 in rebates and achieved an estimated freshwater savings of more than 11 million gallons per year through the BWS water conservation rebate program for efficient toilets, clothes washing machines, rain barrels, and weather-based irrigation controllers.
  - The BWS sponsored its 45th annual Water Conservation Week Poster Contest and the 15th annual Water Conservation Week Poetry Contest with 653 posters and 134 poems from 27 Oahu schools, focused on the theme “How Do you Save Water?” All winning entries will be featured in the 2024 Water Conservation Calendar scheduled for distribution in December 2023.

**Board of Water Supply**  
**City and County of Honolulu**  
**Introduction (Unaudited)**  
**Year Ended June 30, 2023**

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- **Operational Sustainability (Dependable)**

- Responded to 353 main breaks, or about 17 breaks per 100 miles of pipeline, and conducted leak detection surveys for 285 points of interest, which resulted in the Leak Detection Team finding and repairing 428 leaks before major property damages or system interruptions occurred.
- BWS staff helped protect O’ahu’s water resources and prevent damage to BWS infrastructure by handling 7,404 One Call underground pipeline location requests and providing in-field support for 609 water line leaks and breaks. In fiscal year 2023, 15,062 meter investigations were conducted to ensure accurate and timely billing and assisted 3,735 customers with concerns about bills reflecting high water consumption. BWS staff assisted 100,452 customers: 72,336 (72%) by phone; 14,780 (15%) via web requests; 11,826 (11%) via ePortal service orders, and 1,510 (2%) in-person.

- **Financial Sustainability (Affordable)**

- The BWS Series 2023 water revenue bonds are rated AAA by S&P Global and AAA by Fitch Ratings. This allows the board to access capital financing at reasonable rates.
- As of June 30, 2023, made appropriations of nearly \$91 million in construction contracts and more than \$9 million in professional service contracts for projects to maintain and improve water system facilities, including well and booster stations, reservoirs and corporation yards, and for the systematic replacement of aging and deteriorated water mains and improvements for fire protection.
- Initiated design work for future construction of more than 14 miles of water main replacements in the Hale’iwa, Kaimukī, Kāne’ohe, Kapahulu, Liliha, Makiki, Nu’uanu, Sunset Beach, and Wahiawā areas.
- Initiated design work for more than three miles of water main replacements in the Ka’a’awa, Kāhala, Kapolei, Moanalua and Wailupe Valley areas. Awarded contracts for the construction of over 6.2 miles of water main in Diamond Head, Kalama Valley, Moanalua, Nu’uanu, Pālolo Valley, and Waikīkī.
- Awarded design and construction contracts for renovations and improvements of the following BWS facilities: ‘Ālewa Heights Booster No. 2, Barbers Point 215 Reservoir No. 1, Diamond Head 180 Reservoir, ‘Ewa Shaft Tunnel, Hālawa 550 Reservoir, Hālawa Xeriscape Garden, Hale’iwa Wells, Honouliuli Wells, Honouliuli Wells II, Ka’ahumanu Wells, Kailua Heights Booster, Kalihi Corporation Yard, Kapālana Wells, Kunia Wells I, Kunia Wells II, Luluku Wells, Makakilo Booster No. 1, Makakilo Wells, Mānana Wells, Mililani 1150 Reservoir No 1, Mililani 685 Reservoir, Mililani 994 Reservoir Nos. 1 and 2, Mililani Wells III, Mililani Wells IV, Niu Valley Booster No. 1, ‘Ōpana Wells, Pearl City Booster No. 3, Punalu’u Wells III, Punanani Wells, Pūpūkea 600 Reservoir, Wahiawā 994 Reservoir, Wai’alae Iki 1300 Reservoir, Waihe’e 265 Reservoir, Waimānalo 364 Reservoir Nos. 1 and 2, Waipahu Wells III, Waipi’o Acres 808 Reservoir, and Waipi’o Heights Wells I.
- BWS processes payments through various methods: automatic bill payment (35.5%), lockbox (26%), online customer portal (20.5%), BWS Cashiers (12%), Call Center (2%), automated pay-by-phone (2.5%), Satellite City Hall locations (1%), and charitable organizations (0.5%).



## Report of Independent Auditors

To the Board of Directors  
Board of Water Supply  
City and County of Honolulu

### Opinion

We have audited the accompanying financial statements of the Board of Water Supply (“BWS”), a component unit of the City and County of Honolulu (the “City”), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the BWS’s basic financial statements as listed in the index.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the BWS as of June 30, 2023, and the changes in its financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### Basis of Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors’ Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the BWS, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Emphasis of Matter

As discussed in Note 2, the financial statements present only the activities of the BWS, and do not purport to, and do not, present fairly the financial position of the City as of June 30, 2023, the changes in its financial position, or, where applicable, its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

### Adoption of New Accounting Principle


As discussed in Note 2, the BWS adopted Governmental Accounting Standards Board (“GASB”) Statement No. 96, *Subscription-Based Information Technology Arrangements*, in fiscal year 2023. Our opinion is not modified with respect to this matter.

### Responsibilities of Management for the Financial Statements

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

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

#### **Auditors' Responsibilities for the Audit of the Financial Statements**

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


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

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

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

#### **Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 7 through 13 and the schedules of proportionate share of the net pension liability, pension contributions, changes in the net OPEB liability and related ratios, and OPEB contributions on pages 49 through 54 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the GASB who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context.



We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### **Supplementary Information**

Our audit was conducted for the purpose of forming an opinion on the financial statements that comprise the BWS's basic financial statements. The schedules of bonds payable and net revenue requirement are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedules of bonds payable and net revenue requirement are the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules of bonds payable and net revenue requirement are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

#### **Other Information**

Management is responsible for the other information included in the annual report. The other information comprises the introduction but does not include the basic financial statements and our auditors' report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

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

#### **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 15, 2023 on our consideration of the BWS'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 BWS'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 BWS's internal control over financial reporting and compliance.

*Accuity LLP*

Honolulu, Hawaii  
November 15, 2023





**Board of Water Supply  
City and County of Honolulu  
Management’s Discussion and Analysis (Unaudited)  
June 30, 2023**

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This section presents management’s discussion and analysis (“MD&A”) of the financial condition and activities for the Board of Water Supply of the City and County of Honolulu (“BWS”) for the year ended June 30, 2023. This information should be read in conjunction with the BWS’s basic financial statements.

**Financial Highlights**

The BWS implemented the last of five rate increases on July 2022 to meet cost of delivering water to customers and to support the continuation of the capital improvements needed to meet the mission of the Board of Water Supply. In fiscal year 2023, water rates increased by approximately 4%, which equates to \$3.74 of the monthly water charges for an average single-family residential customer effective July 1, 2022.

The BWS maintains a relatively strong financial performance with a manageable capital program. Meanwhile, management continues to carefully evaluate the BWS’s finances to ensure optimum performance. In addition to meeting all debt covenants, outstanding debt and cash reserves were kept at levels appropriate for maintaining favorable bond ratings. Key financial highlights are listed below:

- Net position increased \$46.0 million in fiscal year 2023 compared to the \$30.8 million increase in fiscal year 2022.
- Total assets were \$2.1 billion as of June 30, 2023 and \$2.0 billion as of June 30, 2022, which exceeded liabilities by \$1.3 billion as of June 30, 2023 and 2022.
- The BWS’s unrestricted current assets at June 30, 2023 were 7.7 times its related current liabilities compared to 5.9 times at June 30, 2022.
- The BWS’s debt-to-equity ratio was 40.7% and 40.8% at June 30, 2023 and 2022, respectively, indicating the continuance of capacity to issue additional debt.

**Overview of the Financial Statements**

The BWS is a semi-autonomous agency of the City. The financial statements are presented using the economic resources measurement focus and the accrual basis of accounting, whereby revenues and expenses are recognized in the period earned or incurred.

The MD&A represents management’s analysis and comments on the BWS’s financial condition and performance. Summary financial data, key financial and operational indicators used in the BWS’s annual report, budget, bond resolutions, and other management tools were used for this analysis.

The basic financial statements include the statement of net position, statement of revenues, expenses, and changes in net position, statement of cash flows, and notes to the financial statements. The statement of net position presents the resources and obligations of the BWS as of the end of the reporting period. The statement of revenues, expenses, and changes in net position presents the changes in net position for the fiscal year then ended, and the resultant ending net position balance. The statement of cash flows presents changes in cash and cash equivalents (short-term investments with original maturities of three months or less from the date of acquisition), resulting from operating, investing, capital and related financing activities, and non-capital financing activities.

**Board of Water Supply**  
**City and County of Honolulu**  
**Management’s Discussion and Analysis (Unaudited)**  
**June 30, 2023**

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**Results of Operations**

**Condensed Statements of Revenues, Expenses, and Changes in Net Position**  
**(Amounts in thousands)**

	2023	2022	2023 – 2022	
			Increase (Decrease)	% Change
<b>Operating revenues</b>	\$ 244,712	\$ 248,264	\$ (3,552)	(1.4)%
<b>Operating expenses</b>				
Administrative and general	68,375	63,969	4,406	6.9 %
Depreciation	53,381	49,776	3,605	7.2 %
Power and pumping	44,761	39,465	5,296	13.4 %
Other operating expenses	48,445	54,169	(5,724)	(10.6)%
Total operating expenses	<u>214,962</u>	<u>207,379</u>	<u>7,583</u>	3.7 %
Operating income	<u>29,750</u>	<u>40,885</u>	<u>(11,135)</u>	(27.2)%
<b>Nonoperating revenues (expenses)</b>				
Interest income	11,029	7,860	3,169	40.3 %
Interest expense	(13,579)	(10,925)	(2,654)	24.3 %
Others, net	<u>(3,868)</u>	<u>(26,517)</u>	<u>22,649</u>	(85.4)%
Total nonoperating expenses	<u>(6,418)</u>	<u>(29,582)</u>	<u>23,164</u>	(78.3)%
Contributions in aid of construction	<u>22,652</u>	<u>19,508</u>	<u>3,144</u>	16.1 %
Change in net position	<u>\$ 45,984</u>	<u>\$ 30,811</u>	<u>\$ 15,173</u>	49.2 %

Operating revenues for the year ended June 30, 2023 totaled \$244.7 million compared to \$248.3 million for the year ended June 30, 2022; a decrease of \$3.6 million or 1.4% from the year ended June 30, 2022. This was due to the decrease in water consumption for the multi-family residential class by \$1.5 million, and non-residential class by \$1.1 million in fiscal year 2023.

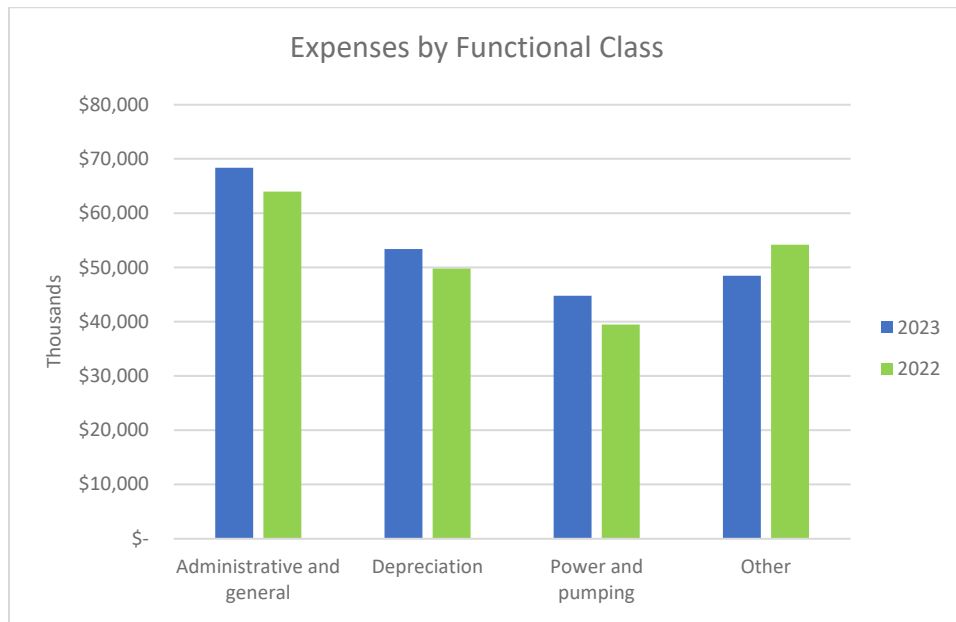
Total operating expenses increased by \$7.6 million in fiscal year 2023. Factors contributing to this change are explained below:

- Administrative and general increased by \$4.4 million in fiscal year 2023. The increase is due to an increase in payroll related costs, software license and maintenance, other contract service, and equipment under \$5,000.
- Power and pumping increased by \$5.3 million in fiscal year 2023, at the total of \$44.8 million compared to \$39.5 million in fiscal year 2022. This increase was due to an increase in utility costs.
- Other operating expenses decreased by \$5.7 million during fiscal year 2023 mainly due to the decrease in transmission maintenance costs and customers’ accounting and collection. The decrease was offset by a small increase in water reclamation.

For the year ended June 30, 2023, net non-operating revenues (expenses) increased by \$23.2 million. This was the result of a decrease in net realized and unrealized loss on investments by \$23.1 million and an increase in interest income by \$3.2 million, which was offset by a decrease in federal grant revenue.

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City and County of Honolulu  
Management’s Discussion and Analysis (Unaudited)  
June 30, 2023**

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Contributions in aid of construction result from Water System Facilities Charges (“WSFC”) that are levied against all new developments and residential properties requiring water from the BWS’s systems, except those developments that have paid for and installed a complete water system, including sources, transmission, and daily storage facilities. In addition, contributions of capital assets from governmental agencies, developers and customers are recorded as contributions in aid of construction at their cost. The BWS realized contributions in aid of construction of \$22.7 million in fiscal year 2023 compared to \$19.5 million in fiscal year 2022. The increase was primarily due to increases of \$3.3 million in contributions by the government, one-time SRF debt forgiveness of \$1.0 million, and decreases of \$1.2 million in WSFC collections. During the year ended June 30, 2023, the major developments were Ho’opili Development Phase 4 Backbone Roadway Improvements, University of Hawaii – West Oahu Off-Site Water Improvements, and HART City Center Utilities and Roadway.

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City and County of Honolulu  
Management's Discussion and Analysis (Unaudited)  
June 30, 2023**

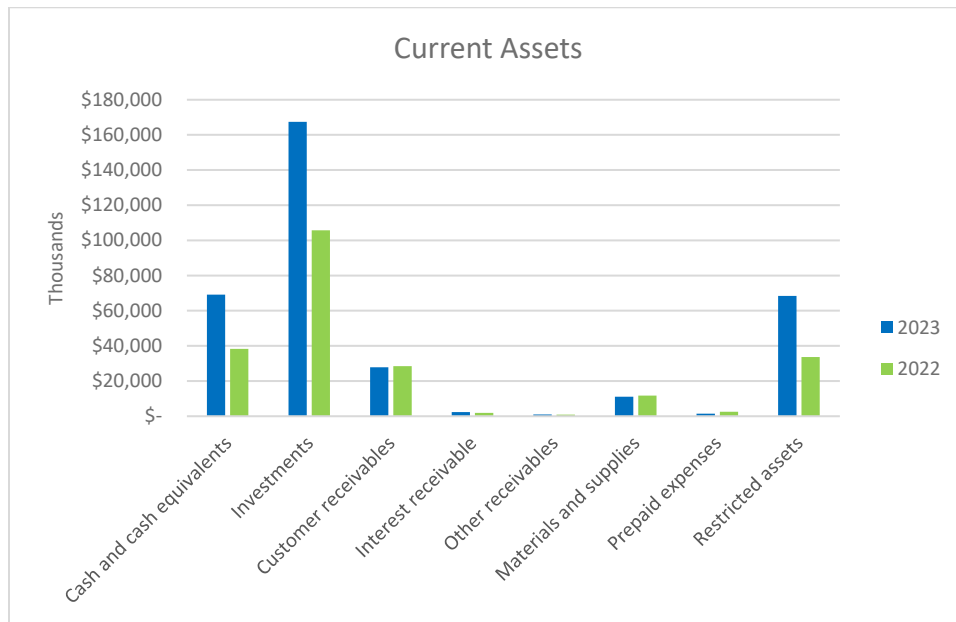
**Financial Condition**

**Condensed Statements of Net Position  
(Amounts in thousands)**

	2023	2022	2023 – 2022	
			Increase (Decrease)	% Change
<b>Current assets</b>	\$ 348,588	\$ 223,138	\$ 125,450	56.2 %
<b>Noncurrent assets</b>				
Capital assets, net	1,366,641	1,334,941	31,700	2.4 %
Investments	224,594	285,596	(61,002)	(21.4)%
Restricted and other assets	196,113	201,259	(5,146)	(2.6)%
Total assets	2,135,936	2,044,934	91,002	4.5 %
Deferred outflows of resources	45,215	44,773	442	1.0 %
Total assets and deferred outflows of resources	\$ 2,181,151	\$ 2,089,707	\$ 91,444	4.4 %
<b>Current liabilities</b>	\$ 104,656	\$ 65,991	\$ 38,665	58.6 %
<b>Noncurrent liabilities</b>				
Bonds payable, noncurrent	393,665	391,396	2,269	0.6 %
Notes payable, noncurrent	129,810	118,582	11,228	9.5 %
Net pension liability	121,159	106,764	14,395	13.5 %
Net OPEB liability	30,887	42,752	(11,865)	(27.8)%
Other liabilities	17,458	16,602	856	5.2 %
Total liabilities	797,635	742,087	55,548	7.5 %
Deferred inflows of resources	38,561	48,648	(10,087)	(20.7)%
<b>Net position</b>				
Net investment in capital assets	1,033,479	1,021,085	12,394	1.2 %
Restricted for capital activity and debt service	15,741	24,790	(9,049)	(36.5)%
Unrestricted	295,735	253,097	42,638	16.8 %
Total net position	1,344,955	1,298,972	45,983	3.5 %
Total liabilities, deferred inflows of resources, and net position	\$ 2,181,151	\$ 2,089,707	\$ 91,444	4.4 %

The BWS's current assets were 3.3 and 3.4 times its related current liabilities as of June 30, 2023 and 2022, respectively. Current cash and cash equivalents increased by \$30.8 million, and current liabilities also increased by \$38.7 million for the year ended June 30, 2023.

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Noncurrent restricted and other assets decreased by \$5.1 million in fiscal year 2023. The decrease is primarily due to the decrease in investments during fiscal year 2023.

Bonds payable increased by \$4.0 million as of June 30, 2023. The increase is attributed to the issuance of Series 2023 Bonds that resulted in the receipt of net bond proceeds of \$19.3 million during fiscal year 2023, offset by scheduled debt service payments in fiscal year 2023.

Notes payable increased by \$12.2 million as of June 30, 2023. The increase is due to the receipt of loan proceeds for new projects utilizing financing from the state revolving fund loan program totaling \$20.7 million.

The net pension liability increased by \$14.4 million as of June 30, 2023, which was mainly due to an increase in the BWS’s proportionate share of the collective net pension liability and unfavorable net difference between projected and actual investment earnings.

The net OPEB liability decreased by \$11.9 million as of June 30, 2023, which was mainly due to a decrease in the OPEB expense and favorable net difference between expected and actual experience and favorable change in assumptions.

**Capital Assets and Long-Term Debt**

During fiscal years 2023 and 2022, the BWS placed into service \$71.7 million and \$80.6 million, respectively, to its utility plant in service. Major assets added during fiscal year 2023 were Kamehameha Heights water system improvements of \$10.1 million; Emergency Generators at Kalihi Yard and Shaft, Hālawa Shaft, and Kunia Wells I of \$8.9 million; Ala Aolani 12-Inch Water Main of \$6.7 million; Anoi Road Water System Improvements of \$6.4 million; and Lualualei Line Booster Station Improvements of \$5.7 million.

The BWS issues long-term bonds to finance part of its capital improvement program. The BWS has maintained a low debt to equity ratio at 40.7% and 40.8% as of June 30, 2023 and 2022, respectively.

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Outstanding Series 2020 through 2023 bonds have been assigned underlying ratings of AAA from S&P Global, and either AA+ or AAA from Fitch. Outstanding Series 2014 bonds have been assigned underlying ratings of AA+ from Fitch and Aa2 from Moody’s.

**Rate Covenant**

The BWS is required under its bond indenture, among other things, to fix, charge and collect such rates and other charges in each fiscal year to meet the net revenue requirement for such fiscal year. The net revenue requirement is the greater of (1) the sum of the aggregate debt service and all deposits required by bond resolution to be made, or (2) 1.20 times the aggregate debt service. The BWS met the net revenue requirements for the year ended June 30, 2023.

**Novel Coronavirus (COVID-19)**

The unprecedented outbreak of COVID-19 caused economic and operational uncertainties for government and the private sectors beginning in 2020. In 2023, the BWS did not see a significant overall impact to revenues. Annual residential revenues decreased by \$1.1M or 0.6%. Annual non-residential revenues decreased by \$1.1M or 1.3%.

Total revenue decreased by \$3.6M or 1.4%. The average delinquency rate is 11.53% and 10.95% for fiscal years 2023 and 2022, respectively.

To assist with the costs incurred by COVID-19, the BWS received federal COVID-19 funding of approximately \$902,000 and \$13,000 in fiscal years 2021 and 2020, respectively. BWS did not receive federal COVID-19 funding in fiscal years 2022 and 2023.

**Red Hill Bulk Fuel Storage Facility**

The U.S. Navy’s Red Hill Bulk Fuel Storage Facility (“RHBFSF”) consists of 20 steel-lined underground storage tanks that were built from 1940 to 1943. Each tank is 100 feet in diameter and 250 feet tall. The RHBFSF can store up to 250 million gallons of fuel. The tanks are located 100 feet above the groundwater aquifer that the Navy uses to provide water to Pearl Harbor and the Board of Water Supply also uses to provide drinking water to its metropolitan Honolulu water system, spanning from Moanalua Valley to Hawaii Kai. Following the 27,000 gallon leak of jet fuel in January 2014, the Navy entered into an Administrative Order of Consent with the U.S. Environmental Protection Agency and Hawaii State Department of Health to conduct various studies to improve tank inspection, repair and maintenance practices, understand the condition of the tanks, identify upgrade alternatives, assess the risk of future leaks, determine the area’s groundwater flow direction, and investigate and remediate releases.

The Navy’s RHBFSF experienced additional leaks in 2021. On December 2, 2021, the BWS shut down the Hālawā Shaft pumping station to prevent any fuel contamination of the BWS Honolulu water system. The Hālawā Shaft delivers 20% of the water delivered to the metropolitan Honolulu water system. On December 8, 2021, the BWS also shut down its ‘Aiea Well and Hālawā Well to prevent such contamination.

The BWS is pumping at higher rates from other well stations that also serve metropolitan Honolulu to make up for the production loss from shutting down the Hālawā Shaft, ‘Aiea Well, and Hālawā Well. This condition is being monitored closely as extended pumping at higher rates can cause water salinity levels to rise and affect both the aquifer and the water pumped. Presently, the situation with the BWS wells serving urban Honolulu is stable.

**Board of Water Supply  
City and County of Honolulu  
Management's Discussion and Analysis (Unaudited)  
June 30, 2023**

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However, extended closure of these three sources could result in mandatory water conservation measures and moratoriums on new water use to prevent the effects of over-pumping other well stations.

On March 7, 2022, Lloyd Austin, Secretary of Defense, announced that the Navy would permanently close the RHBFSF. Defueling the tanks began in October 2023. The Navy continues to work to determine the nature and extent of the contamination in the aquifer affecting its Red Hill Shaft water source. This finding is critical to determining the long-term impact of the contamination on the aquifer and to existing water sources in the area.

On August 4, 2022, polycyclic aromatic hydrocarbons (PAHs), chemicals indicating petroleum contamination, were detected in BWS ground water monitoring well DH-43 located in Moanalua Valley. The individual PAH levels are very low and not expected to pose a significant threat to human health or the environment. Further study is warranted and BWS will increase the testing of its wells to monitor for any changes in levels and occurrence. The closure of the BWS sources was done to prevent any petroleum contamination in the aquifer from reaching those sources and ultimately entering the BWS urban Honolulu water system.

The BWS is tracking the costs of its actions in response to this incident. The BWS cannot predict the ultimate costs of these actions or whether and to what extent it will be reimbursed by the Navy. The BWS's 2018 Long Range Financial Plan developed a scenario for handling a major water source contamination event. The related financial impact on the BWS's financial statements cannot be reasonably determined at this time.

**Requests for Information**

This financial report is designed to provide a general overview of the BWS's finances. Questions concerning any of the information provided in this report or request for additional financial information should be addressed to the Board of Water Supply, City and County of Honolulu, 630 S. Beretania Street, Honolulu, Hawaii 96843.

**Board of Water Supply  
City and County of Honolulu  
Statement of Net Position  
June 30, 2023**

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**Assets**

Current assets

Cash and cash equivalents	\$ 69,101,296
Investments	167,355,923
Interest receivable	2,335,713
Customer receivables	
Billed, less allowance for uncollectible accounts of approximately \$4,210,000	16,678,949
Unbilled	11,196,741
Other receivables, less allowance for uncollectible accounts of approximately \$511,000	949,040
Materials and supplies	11,074,300
Prepaid expenses	1,487,627
Restricted assets	
Cash and cash equivalents	68,408,289
Total current assets	<u>348,587,878</u>

Noncurrent assets

Capital assets

Infrastructure	1,704,420,117
Building and improvements	207,114,752
Equipment and machinery	410,634,864
	<u>2,322,169,733</u>
Less: Accumulated depreciation and amortization	<u>(1,258,001,603)</u>
	1,064,168,130

Land

Construction work in progress	270,101,624
Net capital assets	<u>1,366,640,508</u>

Investments

224,594,153

Restricted assets

Cash and cash equivalents	20,618,192
Investments	172,514,643

Other assets

2,980,703

Total noncurrent assets	<u>1,787,348,199</u>
Total assets	<u>2,135,936,077</u>

**Deferred Outflows of Resources**

Deferred loss on refunding of debt and other	12,921,861
Deferred outflows of resources related to pensions	23,671,394
Deferred outflows of resources related to OPEB	8,621,792
Total deferred outflows of resources	<u>45,215,047</u>
Total assets and deferred outflows of resources	<u>\$2,181,151,124</u>

The accompanying notes are an integral part of these financial statements.



**Board of Water Supply  
City and County of Honolulu  
Statement of Net Position  
June 30, 2023**

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**Liabilities**

Current liabilities

Payable from current assets	
Accounts payable	\$ 19,700,689
Contracts payable, including retainages	9,031,539
Accrued vacation, current portion	3,144,186
Accrued workers' compensation, current portion	1,019,317
Other	<u>3,351,506</u>
Total payable from current assets	36,247,237
Payable from restricted assets	
Contracts payable, including retainages	13,074,436
Accrued interest payable	6,725,780
Bonds payable, current portion	14,845,000
Notes payable, current portion	8,463,073
Refundable advances	<u>25,300,000</u>
Total payable from restricted assets	<u>68,408,289</u>
Total current liabilities	104,655,526

Noncurrent liabilities

Bonds payable, noncurrent portion	393,664,819
Notes payable, noncurrent portion	129,809,722
Net pension liability	121,159,266
Net OPEB liability	30,887,069
Accrued vacation, noncurrent portion	4,703,928
Accrued workers' compensation	2,440,947
Customer advances	1,436,541
Claims liabilities	3,255,206
Other	<u>5,621,481</u>
Total noncurrent liabilities	<u>692,978,979</u>
Total liabilities	797,634,505

**Deferred Inflows of Resources**

Deferred inflows of resources related to pensions	12,069,391
Deferred inflows of resources related to OPEB	23,968,781
Deferred inflows of resources related to leases	<u>2,522,990</u>
Total deferred inflows of resources	38,561,162

**Net Position**

Net investment in capital assets	1,033,480,114
Restricted for capital activity and debt service	15,740,549
Unrestricted	<u>295,734,794</u>
Total net position	<u>1,344,955,457</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$2,181,151,124</u>

The accompanying notes are an integral part of these financial statements.

**Board of Water Supply**  
**City and County of Honolulu**  
**Statement of Revenues, Expenses, and Changes in Net Position**  
**Year Ended June 30, 2023**

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<b>Operating revenues</b>	
Water sales	\$ 242,482,076
Other, principally contract and service fees	<u>2,230,241</u>
Total operating revenues	<u>244,712,317</u>
<b>Operating expenses</b>	
Administrative and general	68,374,907
Depreciation	53,380,554
Power and pumping	44,760,828
Transmission and distribution	24,265,197
Maintenance	10,671,934
Water reclamation	6,075,576
Customers' accounting and collection	3,931,620
Central administrative services expense fees	3,300,000
Source of supply	<u>201,151</u>
Total operating expenses	<u>214,961,767</u>
Operating income	29,750,550
<b>Nonoperating revenues (expenses)</b>	
Interest income	11,028,764
Interest expense, net of amortization of bond premiums of approximately \$2,228,000	(13,579,252)
Bond issuance costs	(341,610)
Loss from disposal of capital assets	(353,379)
Net decrease in the fair value of investments	(3,547,028)
Federal grant revenue	30,927
Other	<u>342,596</u>
Total nonoperating expenses, net	(6,418,982)
<b>Contributions in aid of construction</b>	<u>22,651,942</u>
Change in net position	45,983,510
<b>Net position</b>	
Beginning of year	<u>1,298,971,947</u>
End of year	<u>\$1,344,955,457</u>

The accompanying notes are an integral part of these financial statements.

**Board of Water Supply  
City and County of Honolulu  
Statement of Cash Flows  
Year Ended June 30, 2023**

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<b>Cash flows from operating activities</b>	
Cash received from customers	\$ 244,889,425
Payments to suppliers for goods and services	(103,151,820)
Payments to employees for services	(61,308,875)
Other	(2,471,959)
	<u>77,956,771</u>
Net cash provided by operating activities	
<b>Cash flows from capital and related financing activities</b>	
Acquisition and construction of capital assets	(62,306,132)
Customer payments for capital projects	6,395,601
Federal grants received	25,330,927
Net proceeds from bond issuance	18,999,999
Principal paid on bonds	(13,145,000)
Interest paid on bonds	(11,331,131)
Proceeds from notes payable	20,744,003
Interest paid on notes payable	(1,751,118)
Principal paid on notes payable	(7,553,867)
Lease receipts	162,410
Lease and subscription payments	(127,393)
	<u>(24,581,701)</u>
Net cash used in capital and related financing activities	
<b>Cash flows from investing activities</b>	
Purchase of investments	(179,644,335)
Proceeds from maturity of investments	194,569,002
Interest on investments	10,554,899
	<u>25,479,566</u>
Net cash provided by investing activities	
Net increase in cash and cash equivalents	
	78,854,636
<b>Cash and cash equivalents</b>	
Beginning of year	79,273,141
End of year	<u>\$ 158,127,777</u>
<b>Reconciliation of cash and cash equivalents to the statement of net position</b>	
Unrestricted	\$ 69,101,296
Restricted	89,026,481
	<u>\$ 158,127,777</u>

The accompanying notes are an integral part of these financial statements.

**Board of Water Supply  
City and County of Honolulu  
Statement of Cash Flows  
Year Ended June 30, 2023**

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<b>Reconciliation of operating income to net cash provided by operating activities</b>	
Operating income	\$ 29,750,550
Adjustments to reconcile operating income to net cash provided by operating activities	
Depreciation and amortization	53,380,554
Provision for doubtful accounts	557,116
Changes in operating assets, deferred outflows of resources, operating liabilities, and deferred inflows of resources	
Customer receivables	60,125
Other receivables	(68,319)
Materials and supplies	617,155
Prepaid expenses and other	1,091,458
Deferred outflows of resources related to pensions	(3,440,266)
Deferred outflows of resources related to OPEB	1,382,651
Accounts and contracts payable	2,767,827
Accrued vacation	(10,353)
Accrued workers' compensation	(1,013,600)
Other liabilities	664,078
Net pension liability	14,395,412
Net OPEB liability	(11,865,066)
Deferred inflows of resources related to pensions	(11,855,785)
Deferred inflows of resources related to OPEB	1,543,234
Net cash provided by operating activities	<u>\$ 77,956,771</u>
 <b>Supplemental schedule of noncash investing, capital, and related financing activities</b>	
Changes in fair value of investments	\$ (3,547,028)
Forgiveness of principal due on notes payable	1,000,000
Contributions of capital assets from government agencies, developers and customers that are recorded as contributions in aid of construction	14,873,960
Capital asset additions included in contracts and accounts payable at year-end	22,105,936
Subscription asset additions included in equipment and machinery at year-end	1,768,996
Bond issuance costs deducted from bond proceeds	341,610
Amortization of bond premium, net, and other costs	2,228,256
Amortization of deferred loss on refunding	1,615,232

The accompanying notes are an integral part of these financial statements.

**Board of Water Supply  
City and County of Honolulu  
Notes to Financial Statements  
June 30, 2023**

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**1. Operations**

The Revised Charter of the City and County of Honolulu provides for the operation of the Board of Water Supply (“BWS”) as a semi-autonomous body of the City and County of Honolulu (the “City”) government. The BWS has full and complete authority to manage, control and operate the City’s water system and related properties.

Article VII of the Revised Charter of the City and County of Honolulu states that the BWS’s seven-member Board of Directors has the authority to establish and adjust water rates and charges so that the revenues derived shall be sufficient to make the BWS self-supporting. The Board of Directors is required to follow certain procedures that include holding public hearings before implementing changes in the water rate schedules.

**2. Summary of Significant Accounting Policies**

**Financial Statement Presentation**

The BWS is a component unit of the City (the “primary government”). The accompanying financial statements present only the financial position and activities of the BWS and do not purport to, and do not present the financial position of the City, the changes in its financial position, or its cash flows.

**Measurement Focus and Basis of Accounting**

The accompanying financial statements are presented using the economic resources measurement focus and the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

**Use of Estimates**

The preparation of the financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the carrying amount of capital assets, valuation allowances for receivables, accrued workers’ compensation, and pensions and postretirement benefits. Actual results could differ from those estimates.

**Cash and Cash Equivalents**

For purposes of the statement of cash flows, the BWS considers all cash on hand, demand deposits, and short-term investments (including restricted assets) with original maturities of three months or less from the date of acquisition to be cash and cash equivalents.

**Investments**

Investments are measured at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The cost of securities sold is generally determined by the weighted average method.

**Board of Water Supply**  
**City and County of Honolulu**  
**Notes to Financial Statements**  
**June 30, 2023**

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**Receivables**

Receivables are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is the BWS's best estimate of the amount of probable credit losses in the BWS's existing receivables. The BWS determines the allowance based on past collection experience and the length of time individual receivables are past due. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

**Materials and Supplies**

Materials and supplies are stated at weighted average cost (which approximates the first-in, first-out method). The cost of materials and supplies are recorded as expenses when consumed rather than when purchased.

**Restricted Assets**

Restricted assets are comprised of cash and cash equivalents and investments maintained in accordance with bond resolutions and other agreements for the purpose of funding certain debt service payments, construction, improvements, and renewal and replacements of the water system. When both restricted and unrestricted assets are available for use, it is the BWS's policy to use restricted assets first, then unrestricted assets as they are needed. Restricted assets comprise the following:

- The debt service account accumulates transfers from the operating account throughout the fiscal year to make principal and interest payments on the outstanding water system revenue bonds and other notes payable.
- The renewal and replacement account and the reserve release fund provide funding for improvements, reconstruction, emergency or extraordinary repairs, and renewals or replacements of the water system.
- The improvement account holds the proceeds of the series bond issuance pursuant to the series resolution or series certificates. These proceeds are only applied to costs specified in the applicable series resolution or series certificates.
- The extramural account holds reimbursements received from any governmental agency or private entity, pursuant to negotiated agreements, contracts and/or grants.

**Capital Assets**

Capital assets include those assets in excess of \$5,000 for buildings, infrastructure, and equipment and machinery with a useful life of more than one year. Capital assets are stated at cost and include contributions by governmental agencies, private subdividers, and customers at their cost or estimated cost of new construction.

Major replacements, renewals and betterments are capitalized. The BWS also capitalizes certain indirect costs to construction work based upon actual construction direct labor. Maintenance, repairs and replacements that do not improve or extend the lives of the assets are charged to expense.

Assets are depreciated over the individual assets' estimated useful lives using the straight-line method. Depreciation on both purchased and contributed assets is charged against operations.

**Board of Water Supply  
City and County of Honolulu  
Notes to Financial Statements  
June 30, 2023**

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The estimated useful lives of capital assets are as follows:

Source of supply plant	20 to 100 years
Pumping plant	20 to 50 years
Water treatment plant	20 to 30 years
Transmission and distribution plant	13-1/3 to 50 years
General plant	5 to 50 years

Gains or losses resulting from the sale, retirement or disposal of capital assets in service are credited or charged to nonoperating revenues (expenses).

**Leases – Lessee**

The BWS has a policy to recognize a lease liability and a right-to-use lease asset (“ROU asset”) in the statement of net position. The BWS recognizes lease liabilities with an initial, individual value of \$5,000 or more and a lease term greater than one year. Variable payments based on future performance of the lessee or usage of the underlying asset are not included in the measurement of the lease liability.

At the commencement of a lease, the BWS initially measures the lease liability at the present value of payments expected to be made during the lease term. Subsequently, the lease liability is reduced by the principal portion of lease payments made.

ROU assets are recorded at the amount of the initial measurement of the lease liabilities and modified by any lease payments made to the lessor at or before the commencement of the lease term, less any lease incentives received from the lessor at or before the commencement of the lease term along with any initial direct costs that are ancillary charges necessary to place the ROU asset into service. ROU assets are amortized using the straight-line method over the shorter of the lease term or the useful life of the underlying asset, unless the lease contains a purchase option that the BWS has determined reasonably certain of being exercised. In this case, the ROU asset is amortized over the useful life of the underlying asset.

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

- The BWS uses the interest rate charged by the lessor as the discount rate. When the interest rate charged by the lessor is not provided, the BWS generally uses its estimated incremental borrowing rate as the discount rate for leases.
- The lease term includes the noncancellable period of the lease as well as any periods covered by the BWS’s option to extend the lease if it is reasonably certain, based on all relevant factors, that the BWS will exercise that option. Lease payments included in the measurement of the lease liability are composed of fixed payments and purchase option price that the BWS is reasonably certain to exercise.

The BWS monitors changes in circumstances that would require a remeasurement of its lease and will remeasure any ROU asset and liability if certain changes occur that are expected to significantly affect the amount of the lease liability. The BWS’s ROU assets and lease liabilities are recorded in equipment and machinery and other noncurrent liabilities, respectively, in the statement of net position.

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**City and County of Honolulu**  
**Notes to Financial Statements**  
**June 30, 2023**

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**Leases – Lessor**

The BWS is a lessor for leases of special purpose utility facilities, office and commercial space. The BWS recognizes lease receivables and deferred inflows of resources in the financial statements with an initial, individual value of \$5,000 or more and a lease term greater than one year. Variable payments based on future performance of the lessee or usage of the underlying asset are not included in the measurement of the lease receivable.

At the commencement of a lease, the BWS initially measures the lease receivable at the present value of payments expected to be received during the lease term. Subsequently, the lease receivable is reduced by the principal portion of the lease payments received. The deferred inflows of resources are initially measured as the initial amount of the lease receivable, adjusted for lease payments received at or before the lease commencement date. Subsequently, the deferred inflows of resources are recognized as revenue over the life of the lease term in a systematic and rational method.

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

- The BWS uses its estimated incremental borrowing rate as the discount rate.
- The lease term includes the noncancellable period of the lease as well as any periods covered by the lessee's option to extend the lease if it is reasonably certain, based on all relevant factors, that the lessee will exercise that option. Lease receipts included in the measurement of the lease receivable are composed of fixed payments from the lease.

The BWS monitors changes in circumstances that would require a remeasurement of its lease and will remeasure the lease receivable and deferred inflows of resources if certain changes occur that are expected to significantly affect the amount of the lease receivable. The BWS's lease receivables are recorded in other assets in the statement of net position.

**Subscription-Based Information Technology Arrangements ("SBITA")**

The BWS has a policy to recognize a subscription liability and a right-to-use subscription asset ("subscription asset") in the statement of net position. The BWS recognizes subscription liabilities with an initial, individual value of \$5,000 or more and a term greater than one year.

At the commencement of an arrangement, the BWS initially measures the subscription liability at the present value of payments expected to be made during the term. Subsequently, the subscription liability is reduced by the principal portion of payments made.

Subscription assets are recorded at the amount of the initial measurement of the subscription liabilities, less any payments made to the SBITA vendor before the commencement of the subscription term, and capitalizable initial implementation cost, less any incentives received from the SBITA vendor at or before the commencement of the subscription term. Subscription assets are amortized using the straight-line method over the shorter of the term or the useful life of the underlying asset unless the agreement contains a purchase option that the BWS has determined reasonably certain of being exercised. In this case, the asset is amortized over the useful life of the underlying asset.



**Board of Water Supply  
City and County of Honolulu  
Notes to Financial Statements  
June 30, 2023**

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

- The BWS uses the interest rate charged by the SBITA vendor as the discount rate. When the interest rate charged by the lessor is not provided, the BWS generally uses its estimated incremental borrowing rate as the discount rate for the arrangement.
- The term includes the noncancellable period of the arrangement as well as any periods covered by the BWS's option to extend the lease if it is reasonably certain, based on all relevant factors, that the BWS will exercise that option. Payments included in the measurement of the subscription liability are composed of fixed payments and purchase option price that the BWS is reasonably certain to exercise.

The BWS monitors changes in circumstances that would require a remeasurement of its SBITA and will remeasure any subscription asset and liability if certain changes occur that are expected to significantly affect the amount of the subscription liability. The BWS's subscription assets and liabilities are recorded in equipment and machinery and other noncurrent liabilities, respectively, in the statement of net position.

**Bond Issue Prepaid Insurance Costs, Original Issue Discounts or Premiums, and Deferred Loss on Refunding of Debt**

Bond issue costs are expensed when incurred, except for prepaid insurance, which are amortized over the life of the respective issue on a straight-line basis. Bond issue prepaid insurance costs are presented as other assets in the statement of net position.

Original issue discounts or premiums are amortized using the effective interest method over the terms of the respective issues. Original issue discounts or premiums are offset against or added to bonds payable in the statement of net position.

Deferred loss on refunding of debt is amortized using the straight-line method over the remaining life of the refunded debt or the life of the new debt, whichever is shorter. The deferred loss on refunding of debt is presented as deferred outflows of resources in the statement of net position.

**Accrued Vacation and Compensatory Pay**

Vacation is earned at the rate of one and three-quarters working days for each month of service. Vacation days may be accumulated to a maximum of 90 days as of the end of the calendar year and are convertible to pay upon termination. The BWS accrues a liability for compensated absences and additional amounts for certain salary-related payments including payroll taxes and fringe benefits.

As of June 30, 2023, accumulated sick leave aggregated approximately \$19,839,000. Sick leave accumulates at the rate of one and three-quarters working days for each month of service without limit, but can be taken only in the event of illness and is not convertible to pay upon termination of employment. However, an employee who retires or leaves government service in good standing with 60 or more unused sick days is entitled to additional service credit in the State of Hawaii's Employees' Retirement System.

**Board of Water Supply**  
**City and County of Honolulu**  
**Notes to Financial Statements**  
**June 30, 2023**

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**Net Position**

Net position represents the difference between assets and deferred outflows of resources less liabilities and deferred inflows of resources. Net position is classified in the following three components: net investment in capital assets, restricted for capital activity and debt service, and unrestricted. Net investment in capital assets consists of capital assets, net of accumulated depreciation and reduced by outstanding debt that is attributable to the acquisition, construction or improvement of those assets. Debt related to unspent proceeds or other restricted cash and investments at year-end is not included in the calculation of net investment in capital assets. Restricted for capital activity and debt service consists of net position for which constraints are placed thereon by external parties, such as lenders, grantors, contributors, laws, regulations or enabling legislation. Unrestricted consists of the remaining balance not included in the above categories.

**Operating Revenues and Expenses**

The BWS distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services in connection with the BWS's principal ongoing water operations. The principal operating revenues are derived from charges for water usage, while operating expenses include cost of services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

**Revenue Recognition**

Charges for water sales are based on usage. The BWS's policy is to bill customers on a cyclical monthly basis. The accrual for unbilled water revenues and related receivables reflected in the accompanying financial statements is based on estimated usage from the latest meter reading date to the end of the fiscal year.

**Contributions in Aid of Construction**

Contributions in aid of construction represent cash or capital assets received by the BWS to aid in the construction of infrastructure assets. It also includes the forgiveness of principal due on state revolving fund loans that were used to finance the costs of infrastructure needed to maintain the water system. Contributions in aid of construction are recognized when they are accepted by the BWS and when all applicable eligibility requirements have been met.

**Water System Facilities Charge**

A water system facilities charge is levied against all new developments and residential properties requiring water from the BWS's systems, except those developments that have paid for and installed a complete water system, including source, transmission and daily storage facilities. The amounts collected are initially recorded as customer advances and are recognized as contributions in aid of construction when water service is made available to the customer. The use of these funds is designated for the construction of water facilities.

**Pensions**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions and pension expense, information about the fiduciary net position of the Employees' Retirement System of the State of Hawaii (the "ERS") and additions to/deductions from the ERS's fiduciary net position have been determined using the accrual basis of accounting, which is the same basis as they are reported by the ERS. For this purpose, employer and member contributions are recognized in the period in which the contributions are legally due, and benefit payments (including

**Board of Water Supply  
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Notes to Financial Statements  
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refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

**Postemployment Benefits Other Than Pensions (“OPEB”)**

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Hawaii Employer-Union Health Benefits Trust Fund (“EUTF”) and additions to/deductions from the EUTF’s fiduciary net position have been determined on the same basis as they are reported by the EUTF. For this purpose, the EUTF recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for investments in commingled and money market funds, which are reported at net asset value (“NAV”). The NAV is based on the fair value of the underlying assets held by the respective fund less its liabilities.

**Deferred Compensation Plan**

All full-time employees are eligible to participate in the City and County of Honolulu’s Public Employees’ Deferred Compensation Plan (the “Plan”), adopted pursuant to Internal Revenue Code Section 457. The Plan permits eligible employees to defer a portion of their salary until future years. The deferred compensation amounts are not available to employees until termination, retirement, death or unforeseeable emergency.

A trust fund was established to protect plan assets from claims of general creditors and from diversion to any uses other than paying benefits to participants and beneficiaries. Accordingly, the BWS has excluded the Plan’s assets and liabilities from the financial statements because the BWS and the City do not have significant administrative involvement in the Plan nor perform the investment function for the Plan.

**Risk Management**

The BWS is exposed to various risks of loss from: (1) torts, (2) theft of, damage to, and destruction of assets, (3) employee injuries and illnesses, (4) natural disasters, and (5) employee health, dental, and accident benefits. Commercial insurance coverage is purchased for claims arising from such matters.

The ranges of insurance limits and deductibles are as follows:

<b>Policy</b>	<b>Limit (in millions)</b>	<b>Deductibles</b>
Property	\$60	\$ 100,000
Public entity liability	15	1,000,000
Excess workers’ compensation	25	600,000
Employment practices	5	100,000
Storage tank liability	5	10,000
Pollution legal liability	5	250,000
Crime	5	25,000
Cyber liability	3	100,000

There have been no significant reductions in insurance coverages from the prior fiscal year.

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**New Accounting Pronouncements**

**GASB Statement No. 94**

The GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*. The primary objective of this Statement is to improve financial reporting by addressing issues related to public-private and public-public partnership arrangements (“PPPs”). As used in this Statement, a PPP is an arrangement in which a government (the transferor) contracts with an operator (a governmental or nongovernmental entity) to provide public services by conveying control of the right to operate or use a nonfinancial asset, such as infrastructure or other capital asset (the underlying PPP asset), for a period of time in an exchange or exchange-like transaction. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements (“APAs”). As defined in this Statement, an APA is an arrangement in which a government compensates an operator for services that may include designing, constructing, financing, maintaining or operating an underlying nonfinancial asset for a period of time in an exchange or exchange-like transaction. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022. BWS did not have any such arrangements as of June 30, 2023.

**GASB Statement No. 96**

The GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*. This Statement provides guidance on the accounting and financial reporting for SBITA for government end users. This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset – an intangible asset – and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA.

The adoption of Statement No. 96 resulted in the recording of SBITA assets and liabilities related to various arrangements at July 1, 2022, in accordance with the provisions of this Statement. SBITA liabilities and assets of approximately \$572,000 were reported as of July 1, 2022. The adoption of Statement No. 96 did not result in a restatement of beginning net position. Refer to Note 12 for more information on the BWS’s SBITAs.

**GASB Statement No. 99**

The GASB issued Statement No. 99, *Omnibus 2022*. This Statement enhances comparability in accounting and financial reporting and improves the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees. Certain requirements of this Statement are effective upon issuance, while other requirements are effective for periods beginning after June 15, 2022 and periods beginning after June 15, 2023. The BWS adopted the relevant provisions of the Statement effective in fiscal year 2023 with no material effect to its financial statements. The provisions adopted clarifies key terms relevant to previously issued Statements. Management has not determined the effect this Statement will have on the BWS’s financial statements for requirements effective beginning after June 15, 2023.

**GASB Statement No. 100**

The GASB issued Statement No. 100, *Accounting Changes and Error Corrections*. This statement enhances accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent and comparable information for making decisions or assessing accountability. This Statement is effective for fiscal years beginning after June 15, 2023.

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Management has not yet determined the effect this Statement will have on the BWS's financial statements.

**GASB Statement No. 101**

The GASB issued Statement No. 101, *Compensated Absences*. This statement aims to better meet the information needs of financial statement users by updating the recognition and measurement guidance for compensated absences. That objective is achieved by aligning the recognition and measurement guidance under a unified model and by amending certain previously required disclosures. This Statement is effective for fiscal years beginning after December 15, 2023. Management has not yet determined the effect this Statement will have on the BWS's financial statements.

**3. Cash and Investments**

Cash deposited with the City is maintained by the Department of Budget and Fiscal Services of the City. The City maintains a cash and investment pool that is used by all of the City's Funds and the BWS. The Hawaii Revised Statutes ("HRS") provide for the City's Director of Finance to deposit the cash with any national or state bank or federally insured financial institution authorized to do business in the State of Hawaii, provided that all deposits are fully insured or collateralized. The City's demand deposits are fully insured or collateralized with securities held by the City or its agents in the City's name.

The HRS authorizes the BWS to invest, with certain restrictions, in obligations of the State of Hawaii or the United States of America, in federally insured savings accounts, time certificates of deposit, and bank repurchase agreements with federally insured financial institutions authorized to do business in the State of Hawaii. The BWS's portfolio is managed by various investment managers. These investments consist of U.S. Treasury obligations and U.S. government agencies securities.

**Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Generally, the longer the term of an investment, the greater the sensitivity of its fair value to changes in market interest rates. As a means of limiting its exposure to fair value losses, the BWS invests operating funds primarily in shorter-term securities, money market mutual funds, or similar investment pools.

**Custodial Credit Risk**

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Excluding cash deposited with the City, all cash, money market mutual funds, and investment securities as of June 30, 2023 were held in trust by two financial institutions in the State of Hawaii.

All investment securities are registered in the name of the BWS and are not exposed to custodial credit risk. Money market mutual funds are not considered investment securities for purposes of custodial credit risk classification and are not exposed to custodial credit risk. Cash held in trust with these financial institutions are uncollateralized, however, amounts in excess of depository insurance are covered by commercial insurance obtained by each financial institution designed to insure against losses resulting from errors and omissions or fraud.

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**Credit Risk and Concentration of Credit Risk**

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the holder of the investment. Concentration of credit risk is the risk of a loss attributed to the magnitude of a government's investment in a single issuer. As of June 30, 2023, all investment securities and money market mutual funds were rated Aaa and Aaa-mf, respectively, by Moody's Investors Services. The BWS's concentration of credit risk related to investments in debt securities has been mitigated by limiting such investments to only debt obligations of the U.S. government and U.S. government agencies.

The historical cost and estimated fair value of investments at June 30, 2023 consisted of the following:

	<b>Cost</b>	<b>Fair Value</b>
U.S. Treasury obligations	\$ 482,631,176	\$ 461,532,907
U.S. government agencies	<u>107,052,282</u>	<u>102,931,812</u>
	<u>\$ 589,683,458</u>	<u>\$ 564,464,719</u>

As of June 30, 2023, the credit exposure as a percentage of total investments was as follows:

	<b>Percent of Total</b>	<b>Fair Value</b>
U.S. Treasury obligations	82 %	\$ 461,532,907
U.S. government agencies		
Federal National Mortgage Association	4 %	24,840,535
Federal Home Loan Mortgage Corporation	2 %	12,367,237
Federal Home Loan Bank	10 %	57,858,408
Federal Farm Credit Bank	<u>2 %</u>	<u>7,865,632</u>
	<u>100 %</u>	<u>\$ 564,464,719</u>

The fair value of investments by contractual maturity at June 30, 2023 is shown below:

	<b>Investment Maturities (In Years)</b>		
	<b>Fair Value</b>	<b>Less Than 1</b>	<b>1 – 5</b>
U.S. Treasury obligations	\$ 461,532,907	\$ 225,465,322	\$ 236,067,585
U.S. government agencies	<u>102,931,812</u>	<u>35,650,445</u>	<u>67,281,367</u>
	<u>\$ 564,464,719</u>	<u>\$ 261,115,767</u>	<u>\$ 303,348,952</u>

**4. Restricted Assets**

At June 30, 2023, the BWS's restricted assets were comprised of cash, cash equivalents, and investments and were held for the following purposes:

Construction, renewals and replacements	\$ 219,100,285
Debt service	<u>42,440,839</u>
	<u>\$ 261,541,124</u>

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**5. Fair Value Measurements**

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described as follows:

- **Level 1** – Inputs to the valuation methodology are quoted prices (unadjusted) in active markets for identical assets or liabilities that a government can access at the measurement date.
- **Level 2** – Inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include:
  - Quoted prices for similar assets or liabilities in active markets.
  - Quoted prices for identical or similar assets or liabilities in markets that are not active.
  - Inputs other than quoted prices that are observable for the asset or liability.
  - Inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- **Level 3** – Inputs that are unobservable for an asset or liability.

Following is a description of the valuation techniques used by the BWS to measure fair value:

- **U.S. Treasury obligations** – Valued using quoted prices in active markets for identical assets.
- **U.S. government agencies obligations** – Valued using quoted prices for identical or similar assets in markets that are not active.

The following table sets forth by level, within the fair value hierarchy, assets measured at fair value on a recurring basis as of June 30, 2023:

	<b>Assets at Fair Value</b>			
	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. Treasury obligations	\$ 461,532,907	\$ 461,532,907	\$ -	\$ -
U.S. government agencies	102,931,812	-	102,931,812	-
	<u>\$ 564,464,719</u>	<u>\$ 461,532,907</u>	<u>\$ 102,931,812</u>	<u>\$ -</u>

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**6. Capital Assets**

Capital assets activity during the year ended June 30, 2023 was as follows:

	Balance July 1, 2022 (As Restated)	Additions	Transfers	Retirements	Balance June 30, 2023
<b>Depreciable assets</b>					
Infrastructure	\$ 1,656,768,159	\$ 30,880,819	\$ 18,171,020	\$ (1,399,881)	\$ 1,704,420,117
Building and improvements	203,251,118	3,846,756	44,519	(27,641)	207,114,752
Equipment and machinery	392,700,801	14,387,408	4,325,851	(4,045,223)	407,368,837
Leased equipment and machinery	924,991	-	-	-	924,991
Subscription assets	572,040	1,768,996	-	-	2,341,036
Total depreciable assets	2,254,217,109	50,883,979	22,541,390	(5,472,745)	2,322,169,733
Less: accumulated depreciation	(1,209,524,734)	(52,996,062)	669,340	4,520,182	(1,257,331,274)
Less: accumulated amortization	(285,837)	(384,492)	-	-	(670,329)
Total depreciable assets, net	1,044,406,538	(2,496,575)	23,210,730	(952,563)	1,064,168,130
Land	32,370,754	-	-	-	32,370,754
Construction work in progress	258,735,549	34,576,805	(23,210,730)	-	270,101,624
Capital assets, net	<u>\$ 1,335,512,841</u>	<u>\$ 32,080,230</u>	<u>\$ -</u>	<u>\$ (952,563)</u>	<u>\$ 1,366,640,508</u>

Depreciation charges allocated to various functions for the year ended June 30, 2023 totaled approximately \$2,425,000.

**7. Bonds Payable**

At June 30, 2023, bonds payable consisted of the following:

Water System Revenue Bonds, Series 2014A, annual principal due commencing from July 1, 2023, ranging from \$930,000 to \$4,470,000 through July 1, 2031, with interest ranging from 3.0% to 5.0%.	\$ 23,015,000
Water System Revenue Bonds, Series 2014B, annual principal due ranging from \$1,540,000 to \$1,845,000 through July 1, 2028, with interest ranging from 2.92% to 3.59%.	10,240,000
Water System Revenue Bonds, Series 2020A, annual principal due ranging from \$1,035,000 to \$3,165,000 through July 1, 2049, with interest ranging from 2.50% to 5.0%.	56,985,000
Water System Revenue Bonds, Series 2020B, annual principal due ranging from \$580,000 to \$5,370,000 through July 1, 2033, with interest ranging from 1.66% to 2.38%.	45,560,000
Water System Revenue Bonds, Series 2021A, annual principal due ranging from \$855,000 to \$2,955,000 through July 1, 2050, with interest ranging from 3.0% to 5.0%.	49,165,000
Water System Revenue Bonds, Series 2021B, annual principal due ranging from \$60,000 to \$8,155,000 through July 1, 2031, with interest ranging from 0.36% to 2.07%.	43,455,000
Subtotal	<u>228,420,000</u>



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Subtotal carried forward	228,420,000
Water System Revenue Bonds, Series 2022A, annual principal due ranging from \$1,385,000 to \$4,290,000 through July 1, 2051, with interest ranging from 3.0% to 5.0%.	82,700,000
Water System Revenue Bonds, Series 2022B, annual principal due ranging from \$55,000 to \$8,770,000 through July 1, 2036, with interest ranging from 1.90% to 3.14%.	52,020,000
Water System Revenue Bonds, Series 2023, annual principal due ranging from \$565,000 to \$885,000 through July 1, 2048, with interest of 5.0%.	<u>17,425,000</u>
	380,565,000
Add: Unamortized premium	<u>27,944,819</u>
	408,509,819
Less: Current portion	<u>14,845,000</u>
Noncurrent portion	<u>\$ 393,664,819</u>

The BWS has pledged future revenues, net of specified operating and maintenance expenses, for the security and payment of the water system revenue bonds outstanding. Proceeds from the bonds were used to finance the construction of various components of the water system or to refund the principal amounts of previously issued water system revenue bonds. As of June 30, 2023, the total principal and interest remaining to be paid on the bonds totaled \$551,099,000. Aggregate debt service for the current year and revenues, net of specified operating and maintenance expenses, were approximately \$27,244,000 and \$94,160,000, respectively.

The BWS's outstanding revenue bonds contain a provision that, in the event of a default, the holders of not less than 25% of the bonds may declare the principal and interest due immediately. An event of default includes, but is not limited to, the following situations: failure to pay the principal and interest due, failure to punctually perform any of the covenants, agreements or conditions of the resolution, and bankruptcy. The BWS has covenanted and agreed to maintain the water system in good repair; to fix rates and charges sufficient to meet the Net Revenue Requirement, as defined in the bond indenture; not to dispose of the properties comprising the water system; to maintain and keep proper books; and other actions consistent with conducting the business of the water system in an efficient and economical manner.

In March 2023, the BWS issued \$17,425,000 in Water System Revenue Bonds, Series 2023, to fund the costs of certain improvements, betterments and extensions of the Water System.

As of June 30, 2023, the total amount of debt defeased for financial reporting purposes that remains outstanding was \$52,285,000.

Water system revenue bonds are subject to redemption on and after specific dates prior to maturity at the option of the BWS. The redemption amount equals the outstanding principal amount plus accrued interest without premium on the date of redemption.

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Debt service requirements on bonds payable at June 30, 2023 are as follows:

	Principal	Interest	Total
<b>Years ending June 30,</b>			
2024	\$ 14,845,000	\$ 12,573,000	\$ 27,418,000
2025	15,370,000	12,235,000	27,605,000
2026	17,375,000	11,637,000	29,012,000
2027	17,955,000	11,059,000	29,014,000
2028–2032	97,500,000	47,554,000	145,054,000
2033–2037	80,465,000	33,419,000	113,884,000
2038–2042	39,535,000	22,856,000	62,391,000
2043–2047	47,750,000	14,627,000	62,377,000
2048–2053	49,770,000	4,574,000	54,344,000
	<u>\$ 380,565,000</u>	<u>\$ 170,534,000</u>	<u>\$ 551,099,000</u>

**8. Notes Payable**

At June 30, 2023, notes payable from direct borrowings consisted of the following:

**Notes payable to Department of Health**

Note payable in semi-annual installments of approximately \$146,900, including interest and loan fees at 1.5% per annum, due May 2034.	\$ 2,790,528
Note payable in semi-annual installments of approximately \$145,900, including interest and loan fees at 1.5% per annum, due May 2034.	2,771,888
Note payable in semi-annual installments of approximately \$144,000, including interest and loan fees at 1.5% per annum, due November 2034.	2,843,151
Non-interest bearing note payable in semi-annual installments of approximately \$202,000, including loan fees at 1.0% per annum, due November 2034.	4,093,582
Non-interest bearing note payable in semi-annual installments of approximately \$764,900, including loan fees at 1.0% per annum, due April 2034.	14,892,821
Non-interest bearing note payable in semi-annual installments of approximately \$258,700, including loan fees at 1.0% per annum, due December 2037.	6,967,725
Non-interest bearing note payable in semi-annual installments of approximately \$865,600, including loan fees at 1.0% per annum, due February 2039.	25,538,725
Note payable in semi-annual installments of approximately \$148,300, including interest and loan fees at 1.5% per annum, due October 2036.	3,609,545
Note payable in semi-annual installments of approximately \$231,800, including interest and loan fees at 1.25% per annum, due October 2038.	6,509,775
Note payable in semi-annual installments of approximately \$418,500, including interest and loan fees at 1.75% per annum, due October 2039.	11,933,243
Note payable in semi-annual installments of approximately \$175,700, including interest and loan fees at 0.25% per annum, due April 2040.	<u>6,187,030</u>
Subtotal	88,138,013

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Subtotal carried forward	88,138,013
Note payable in semi-annual installments of approximately \$119,500, including interest and loan fees at 2.15% per annum, due March 2039.	3,324,565
Note payable in semi-annual installments of approximately \$364,500, including interest and loan fees at 1.75% per annum, due October 2040.	10,940,610
Note payable in semi-annual installments of approximately \$193,400, including interest and loan fees at 2.15% per annum, due January 2040.	5,489,510
Note payable in semi-annual installments of approximately \$349,300, including interest and loan fees at 1.75% per annum, due October 2041.	<u>10,995,479</u>
	118,888,177
<b>Note payable to other lenders</b>	
Note payable in semi-annual installments of approximately \$577,100, including interest and loan fees at 1.75% per annum, due October 2042.	19,000,000
Note payable in monthly installments of approximately \$15,700, including interest at 5.0%, due September 2025.	<u>384,618</u>
	138,272,795
Less: Current maturities	<u>8,463,073</u>
Noncurrent portion	<u>\$ 129,809,722</u>

The notes payable to the Department of Health are state revolving fund loans and are secured by the net revenue of the BWS, subject to and subordinate to the pledge of the net revenue securing the outstanding water system revenue bonds described in Note 7. Proceeds from the loans were used to finance the construction of various components of the water system. As of June 30, 2023, the total principal, interest and loan fees remaining to be paid on the loans totaled \$155,258,000. Aggregate debt service for the current year and revenues, net of specified operating and maintenance expenses, were approximately \$27,244,000 and \$94,160,000, respectively. The BWS's outstanding state revolving fund loans contain a provision that, in the event of default, the outstanding amounts become due immediately with the consent of the majority of the holders of the BWS's revenue bonds. An event of default includes, but is not limited to, the following situations: failure to pay the principal and interest due; failure to punctually perform any of the covenants, agreements or conditions of the resolution; and bankruptcy. The BWS has covenanted and agreed to maintain the water system in good repair; to fix rates and charges sufficient to meet the Net Revenue Requirement, as defined in the bond indenture; not to dispose of the properties comprising the water system; to maintain and keep proper books; and other actions consistent with conducting the business of the water system in an efficient and economical manner.

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Debt service requirements on notes payable from direct borrowings at June 30, 2023 are as follows:

	Principal	Interest	Loan Fee	Total
<b>Years ending June 30,</b>				
2024	\$ 8,463,000	\$ 445,000	\$ 1,491,000	\$ 10,399,000
2025	8,552,000	420,000	1,402,000	10,374,000
2026	8,502,000	387,000	1,312,000	10,201,000
2027	8,555,000	361,000	1,221,000	10,137,000
2028	8,648,000	335,000	1,129,000	10,112,000
2029–2033	44,680,000	1,284,000	4,230,000	50,194,000
2034–2038	36,846,000	617,000	1,933,000	39,396,000
2039–2043	14,027,000	88,000	330,000	14,445,000
	<u>\$ 138,273,000</u>	<u>\$ 3,937,000</u>	<u>\$ 13,048,000</u>	<u>\$ 155,258,000</u>

**9. Long-Term Liabilities**

Changes in long-term liabilities for the year ended June 30, 2023 are as follows:

	Balance July 1, 2022 (As Restated)	Additions	Reductions	Balance June 30, 2023	Current Portion
Bonds payable	\$ 376,285,000	\$ 17,425,000	\$ (13,145,000)	\$ 380,565,000	\$ 14,845,000
Add: Unamortized premium	<u>28,256,465</u>	<u>1,916,610</u>	<u>(2,228,256)</u>	<u>27,944,819</u>	-
Total bonds payable	404,541,465	19,341,610	(15,373,256)	408,509,819	14,845,000
Notes payable	126,082,659	20,744,052	(8,553,916)	138,272,795	8,463,073
Accrued vacation	7,858,467	3,133,833	(3,144,186)	7,848,114	3,144,186
Accrued workers' compensation	4,473,864	108,000	(1,121,600)	3,460,264	1,019,317
Customer advances	1,818,922	6,759,744	(7,142,125)	1,436,541	-
Net pension liability	106,763,854	64,569,340	(50,173,928)	121,159,266	-
Net OPEB liability	42,752,135	16,078,729	(27,943,795)	30,887,069	-
Claims liability	3,054,319	1,540,763	(1,339,876)	3,255,206	-
Lease liability	647,841	173,244	(282,890)	538,195	-
Subscription liability	572,040	1,700,041	(235,374)	2,036,707	-
Other	<u>2,902,142</u>	<u>622,112</u>	<u>(477,675)</u>	<u>3,046,579</u>	-
	<u>\$ 701,467,708</u>	<u>\$ 134,771,468</u>	<u>\$ (115,788,621)</u>	<u>\$ 720,450,555</u>	<u>\$ 27,471,576</u>

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**10. Net Position**

The BWS's net position consisted of the following as of June 30, 2023:

<b>Net investment in capital assets</b>	
Capital assets, net	\$1,366,640,508
Deferred loss on refunding of debt	12,921,861
Less: Water system revenue bonds payable	(408,509,819)
Less: Notes payable	(138,272,795)
Unspent debt proceeds	<u>200,700,359</u>
	1,033,480,114
<b>Restricted for capital activity and debt service</b>	
Restricted cash and cash equivalents	89,026,481
Restricted investments	172,514,643
Less: Unspent debt proceeds	(200,700,359)
Less: Accrued interest payable	(6,725,780)
Less: Contracts payable	(13,074,436)
Less: Refundable advances	<u>(25,300,000)</u>
	15,740,549
Unrestricted	<u>295,734,794</u>
	<u><u>\$1,344,955,457</u></u>

**11. Leases**

The BWS leases certain properties to other users, primarily utility and telecommunications companies, under multi-year license agreements with terms ranging from five to thirty years through December 2041. At June 30, 2023, lease receivables of approximately \$2,660,000 were reported in other assets. For the year ended June 30, 2023, lease revenue and interest revenue of approximately \$154,000 and \$114,000, respectively, were reported in other nonoperating revenues.

The BWS leases space for its deep seawater cooling project on Oahu under a lease that extends through September 2025. The BWS also has leases conveying the right to use various office and information technology equipment under contracts that extend through August 2027.

**12. Subscription-Based Information Technology Arrangements**

The BWS has agreements conveying the right to use various information technology systems under contracts that extend through April 2028.

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The future principal and interest requirements for the subscription liability at June 30, 2023 are as follows:

	Principal	Interest	Total
<b>Years ending June 30,</b>			
2024	\$ 649,000	\$ 74,000	\$ 723,000
2025	669,000	45,000	714,000
2026	383,000	21,000	404,000
2027	168,000	10,000	178,000
2028	168,000	3,000	171,000
	<u>\$ 2,037,000</u>	<u>\$ 153,000</u>	<u>\$ 2,190,000</u>

**13. Related Party Transactions**

The BWS has an agreement with the City’s Department of Environmental Services to provide certain services relating to the billing and collection of sewer service charges. For the year ended June 30, 2023, fees related to these services totaled approximately \$3,786,000, which are netted against operating expenses on the statement of revenues, expenses, and changes in net position.

The BWS has an agreement with the City to pay a central administrative services expense (“CASE”) fee for treasury, personnel, purchasing and other services that the City provides to the BWS on an on-going basis. The BWS’s Charter allows for CASE fees to the extent that they represent reasonable charges for services necessary for the BWS to perform its duties. CASE fees totaled \$3,300,000 for the year ended June 30, 2023.

As of June 30, 2023, amounts due from the City for water charges totaled approximately \$1,101,000, and are included in customer receivables in the statement of net position.

The BWS has entered into several agreements with the City for joint capital projects. As of June 30, 2023, the unexpended advanced funds totaled approximately \$956,000.

**14. Retirement Benefits**

**Pension Plan**

***Plan Description***

The Employees’ Retirement System (“ERS”) is a cost-sharing, multiple-employer public employee retirement system established as a defined benefit pension plan to administer a pension benefits program for all eligible employees of the state and counties of Hawaii. Benefit terms, eligibility, and contribution requirements are governed by Chapter 88 of the HRS and can be amended through legislation. The ERS issues publicly available annual financial reports that can be obtained at the ERS website: <http://ers.ehawaii.gov/resources/financials>.

***Benefits Provided***

The ERS Pension Trust is comprised of three pension classes for membership purposes and considered to be a single plan for accounting purposes since all assets of the ERS may legally be used to pay the benefits of any of the ERS members or beneficiaries. The ERS provides retirement, disability and death benefits

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with three membership classes known as the noncontributory, contributory and hybrid retirement classes. The three classes provide a monthly retirement allowance equal to the benefit multiplier (generally 1.25% or 2.25%) multiplied by the average final compensation multiplied by years of credited service. Average final compensation for members hired prior to July 1, 2012 is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation for members hired January 1, 1971 or later and the average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation for members hired prior to January 1, 1971. For members hired after June 30, 2012, average final compensation is an average of the highest salaries during any five years of credited service excluding any salary paid in lieu of vacation.

Each retiree's original retirement allowance is increased on each July 1 beginning the calendar year after retirement. Retirees first hired as members prior to July 1, 2012 receive a 2.5% increase each year of their original retirement allowance without a ceiling. Retirees first hired as members after June 30, 2012 receive a 1.5% increase each year of their original retirement allowance without a ceiling. The annual increase is not compounded.

The following summarizes the provisions relevant to the largest employee groups of the respective membership class. Retirement benefits for certain groups, such as police officers, firefighters, some investigators, sewer workers, judges, and elected officials, vary from general employees.

Noncontributory Class

- Retirement Benefits – General employees' retirement benefits are determined as 1.25% of average final compensation multiplied by the years of credited service. Employees with ten years of credited service are eligible to retire at age 62. Employees with thirty years of credited service are eligible to retire at age 55.
- Disability Benefits – Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35% of their average final compensation. Ten years of credited service are required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 12.5% of average final compensation.
- Death Benefits – For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a monthly benefit of 30% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. Additional benefits are payable to surviving dependent children up to age 18. If there is no spouse/reciprocal beneficiary or surviving dependent children, no benefit is payable.

Ordinary death benefits are available to employees who were active at the time of death with at least ten years of credited service. The surviving spouse/reciprocal beneficiary (until remarriage/re-entry into a new reciprocal beneficiary relationship) and surviving dependent children (up to age 18) receive a benefit equal to a percentage of the member's accrued maximum allowance unreduced for age or, if the member was eligible for retirement at the time of death, the surviving spouse/reciprocal beneficiary receives 100% joint and survivor lifetime pension and the surviving dependent children receive a percentage of the member's accrued maximum allowance unreduced for age.

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Contributory Class for Members Hired Prior to July 1, 2012

- *Retirement Benefits* – General employees’ retirement benefits are determined as 2% of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 55.
- *Disability Benefits* – Members are eligible for service-related disability benefits regardless of length of service and receive a one-time payment of the member’s contributions and accrued interest plus a lifetime pension of 50% of their average final compensation. Ten years of credited service are required for ordinary disability. Ordinary disability benefits are determined as 1.75% of average final compensation multiplied by the years of credited service but are payable immediately, without an actuarial reduction, and at a minimum of 30% of average final compensation.
- *Death Benefits* – For service-connected deaths, the designated surviving spouse/reciprocal beneficiary receives a lump sum payment of the member’s contributions and accrued interest plus a monthly benefit of 50% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or surviving dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least one year of service. Ordinary death benefits consist of a lump sum payment of the member’s contributions and accrued interest plus a percentage of the salary earned in the twelve months preceding death, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least ten years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Contributory Class for Members Hired After June 30, 2012

- *Retirement Benefits* – General employees’ retirement benefits are determined as 1.75% of average final compensation multiplied by the years of credited service. General employees with ten years of credited service are eligible to retire at age 60.
- *Disability and Death Benefits* – Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 50% of their average final compensation plus refund of contributions and accrued interest. Ten years of credited service are required for ordinary disability.

Death benefits for contributory members hired after June 30, 2012 are generally the same as those for contributory members hired June 30, 2012 and prior.



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Hybrid Class for Members Hired Prior to July 1, 2012

- *Retirement Benefits* – General employees’ retirement benefits are determined as 2% of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 62. General employees with thirty years of credited service are eligible to retire at age 55.
- *Disability Benefits* – Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35% of their average final compensation plus refund of their contributions and accrued interest. Ten years of credited service are required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 25% of average final compensation.
- *Death Benefits* – For service-connected deaths, the designated surviving spouse/reciprocal beneficiary receives a lump sum payment of the member’s contributions and accrued interest plus a monthly benefit of 50% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or surviving dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least five years of service. Ordinary death benefits consist of a lump sum payment of the member’s contributions and accrued interest plus a percentage multiplied by 150%, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least ten years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Hybrid Class for Members Hired After June 30, 2012

- *Retirement Benefits* – General employees’ retirement benefits are determined as 1.75% of average final compensation multiplied by the years of credited service. General employees with ten years of credited service are eligible to retire at age 65. Employees with thirty years of credited service are eligible to retire at age 60. Sewer workers, water safety officers, and emergency medical technicians may retire with 25 years of credited service at age 55.
- *Disability and Death Benefits* – Provisions for disability and death benefits generally remain the same except for ordinary death benefits. Ordinary death benefits are available to employees who were active at time of death with at least ten years of service. Ordinary death benefits consist of a lump sum payment of the member’s contributions and accrued interest, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least ten years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

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***Contributions***

The employer contribution rate is a fixed percentage of compensation. The employer contribution rate for general employees was 24% for the year ended June 30, 2023. For the year ended June 30, 2023, contributions to the pension plan from the BWS totaled approximately \$11,377,000.

The employer is required to make all contributions for noncontributory members. For contributory class employees hired prior to July 1, 2012, general employees are required to contribute 7.8% of their salary. For contributing class employees hired after June 30, 2012, general employees are required to contribute 9.8% of their salary. Hybrid class members hired prior to July 1, 2012 are required to contribute 6.0% of their salary. Hybrid class members hired after June 30, 2012 are required to contribute 8.0% of their salary.

***Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions***

At June 30, 2023, the BWS reported a liability of approximately \$121,159,000, for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2022, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of those dates. The BWS's proportion of the net pension liability was based on the actual employer contributions to the pension plan relative to the contributions of all participating employers. At June 30, 2022, the BWS's proportionate share was 0.93%.

For the year ended June 30, 2023, the BWS recognized pension expense of approximately \$10,476,000. At June 30, 2023, the BWS reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 2,174,225	\$ 1,753,990
Changes of assumptions	177,776	1,536,787
Net difference between projected and actual earnings on pension plan investments	-	5,243,950
Changes in proportion and differences between employer contributions and proportionate share of contributions	9,942,828	3,534,664
Employer contributions subsequent to the measurement date	11,376,565	-
	<u>\$ 23,671,394</u>	<u>\$ 12,069,391</u>

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At June 30, 2023, the BWS reported approximately \$11,377,000 of deferred outflows of resources related to pensions resulting from BWS contributions subsequent to the measurement date, which will be recognized as a reduction of the net pension liability in the year ended June 30, 2024. Other amounts reported as deferred outflows of resources and deferred inflows of resources at June 30, 2023 will be recognized in pension expense as follows:

<b>Years ending June 30,</b>	<b>Net Deferred Inflows</b>
2024	\$ (522,915)
2025	(100,082)
2026	(2,358,251)
2027	3,160,309
2028	46,377
	<u>\$ 225,438</u>

**Actuarial Assumptions**

The total pension liability in the June 30, 2022 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50 %
Investment rate of return, including inflation	7.00 %
Salary increases, including inflation	
General employees	3.75% to 6.75%

Mortality rates used in the actuarial valuation as of June 30, 2022 were based on the following:

- **Active members** – Scale MP2021 mortality table for active employees based on the occupation of the member.
- **Healthy retirees** – The 2022 Public Retirees of Hawaii mortality tables. The rates are projected on a fully generational basis by the long-term rates of scale UMP from the year 2022 and with multiplier and setbacks based on plan and group experience.
- **Disabled retirees** – Base table for healthy retirees’ occupation, set forward three years, generational projection using the UMP projection table from the year 2022. Minimum mortality rate of 3.5% for males and 2.5% for females.

The actuarial assumptions used in the actuarial valuation as of June 30, 2022 were based on the results of an experience study as of June 30, 2021, with most of the assumptions based on the period from July 1, 2016 through June 30, 2021.

The long-term expected rate of return on pension plan investments was determined using a “top down approach” of the Client-Constrained Simulation-based Optimization Model (a statistical technique known as “re-sampling with replacement” that directly keys in on specific plan-level risk factors as stipulated by the ERS Board) in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These

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ranges are combined to produce the long-term expected rate of return by weighting the expected nominal real rates of return (real returns + inflation) by the target asset allocation percentage. The rate of returns, based on ERS's investment consultant as of June 30, 2022, are summarized in the following table:

<b>Strategic Allocation (Risk-Based Classes)</b>	<b>Target Allocation</b>	<b>Expected Long-Term Geometric Average Strategic Range*</b>
Broad growth	63.00 %	8.00 %
Diversifying strategies	37.00 %	5.10 %
	<u>100.00 %</u>	

\*Uses an expected inflation of 2.5%.

***Discount Rate***

The discount rate used to measure the total pension liability at June 30, 2022 was 7.00%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from employers will be made at statutorily required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

***Sensitivity of the BWS's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate***

The following presents the BWS's proportionate share of the net pension liability calculated as of the year ended June 30, 2023 using the discount rate of 7.00%, as well as what the BWS's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	<b>1% Decrease (6.00%)</b>	<b>Current Discount Rate (7.00%)</b>	<b>1% Increase (8.00%)</b>
Proportionate share of the net pension liability	<u>\$ 162,352,824</u>	<u>\$ 121,159,266</u>	<u>\$ 87,058,860</u>

***Pension Plan Fiduciary Net Position***

Detailed information about the pension plan's fiduciary net position is available in the separately issued ERS financial report. ERS's complete financial statements are available at <https://ers.ehawaii.gov/resources/financials>.

***Payable to the Pension Plan***

At June 30, 2023, the amounts payable to the ERS totaled approximately \$1,880,000, which consists of excess pension costs required by the HRS for fiscal year 2023.

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**Postemployment Benefits Other Than Pensions (“OPEB”)**

***Plan Description***

Chapter 87A of the HRS established the EUTF, an agent multiple-employer defined benefit plan, which provides a single delivery system of health and other benefits for state and county workers, retirees and their eligible dependents. The EUTF issues a stand-alone financial report that is available to the public on its website at <https://eutf.hawaii.gov/reports>. The report may also be obtained by writing to the EUTF at P.O. Box 2121, Honolulu, Hawaii 96805-2121.

***Benefits Provided***

Chapter 87A of the HRS grants the authority to establish and amend the benefit terms to the board of trustees of the EUTF. The EUTF currently provides medical, prescription drug, dental, vision, chiropractic, supplemental medical and prescription drug, and group life insurance benefits for retirees and their dependents. The following table provides a summary of the number of employees covered by the benefit terms as of July 1, 2022:

Inactive employees or beneficiaries currently receiving benefits	594
Inactive employees entitled but not yet receiving benefits	49
Active employees	551
	<u>1,194</u>

***Contributions***

The BWS’s contribution levels are established by Chapter 87A of the HRS. For the year ended June 30, 2023, the BWS was required to contribute a minimum amount equal to 100% of the annual required contribution (“ARC”), as determined by an actuary retained by the board of trustees of the EUTF. The ARC represents a level of funding that is sufficient to cover (1) the normal cost, which is the cost of the other postemployment benefits attributable to the current year of service; and (2) an amortization payment, which is a catch-up payment for past service costs to fund the unfunded actuarial accrued liability over the next thirty years. For the year ended June 30, 2023, contributions to the OPEB plan from the BWS totaled \$8,180,000, which resulted in an average contribution rate of approximately 20% of covered-employee payroll.

For employees hired before July 1, 1996, the BWS pays the entire base monthly contribution for employees retiring with ten or more years of credited service, and 50% of the base monthly contribution for employees retiring with fewer than ten years of credited service. A retiree can elect a family plan to cover dependents. The BWS’s contribution is based on the plan selected by the retiree (single, two-party, or family plans).

For employees hired after June 30, 1996, but before July 1, 2001, and who retire with fewer than ten years of service, the BWS makes no contributions. For those retiring with at least ten years but fewer than 15 years of service, the BWS pays 50% of the base monthly contribution. For those retiring with at least 15 years but fewer than 25 years of service, the BWS pays 75% of the base monthly contribution. For those employees retiring with at least 25 years of service, the BWS pays 100% of the base monthly contribution. The BWS’s contribution is based on the plan selected by the retiree (single, two-party, or family plans).

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For employees hired on or after July 1, 2001, and who retire with fewer than ten years of service, the BWS makes no contributions. For those retiring with at least ten years but fewer than 15 years of service, the BWS pays 50% of the base monthly contribution. For those retiring with at least 15 years but fewer than 25 years of service, the BWS pays 75% of the base monthly contribution. For those employees retiring with at least 25 years of service, the BWS pays 100% of the base monthly contribution. Only single plan coverage is provided for retirees in this category. Retirees can elect family coverage, but must pay the difference.

***Net OPEB Liability***

The BWS's net OPEB liability as of June 30, 2023 was measured as of July 1, 2022, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of those dates.

***Actuarial Assumptions***

The total OPEB liability in the July 1, 2022 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	3.75% to 6.75% including inflation
Investment rate of return	7.00%
Healthcare cost trend rates	
PPO*	Initial rate of 6.4% declining to a rate of 4.25% after 22 years
HMO*	Initial rate of 6.4% declining to a rate of 4.25% after 22 years
Part B and base monthly contribution	Initial rate of 5.0% declining to a rate of 4.25% after 22 years
Dental	4.00%
Vision	2.50%
Life insurance	0.00%

\*Blended rates for medical and prescription drugs.

Mortality rates used in the actuarial valuation as of July 1, 2022 were based on the following:

- **Active members** – Scale MP2021 mortality table for active employees based on the occupation of the member.
- **Healthy retirees** – The 2022 Public Retirees of Hawaii mortality tables. The rates are projected on a fully generational basis by the long-term rates of scale UMP from the year 2022 and with multiplier and setbacks based on plan and group experience.
- **Disabled retirees** – Base table for healthy retirees' occupation, set forward three years, generational projection using the UMP projection table from the year 2022. Minimum mortality rate of 3.5% for males and 2.5% for females.

The actuarial assumptions used in the actuarial valuation as of June 30, 2022 were based on the results of an experience study as of June 30, 2021, with most of the assumptions based on the period from July 1, 2016 through June 30, 2021.

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The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class as of July 1, 2022 are summarized in the following table:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
Global equity	27.50 %	6.62 %
Private equity	12.50 %	11.72 %
Real assets	10.00 %	6.59 %
Trend following	10.00 %	4.53 %
Private credit	8.00 %	6.38 %
U.S. microcap	6.00 %	8.28 %
Long Treasuries	6.00 %	2.32 %
Global options	5.00 %	4.45 %
TIPS	5.00 %	1.35 %
Reinsurance	5.00 %	4.81 %
Alternative risk premia	5.00 %	3.74 %
Total investments	<u>100.00 %</u>	

*Discount Rate*

The discount rate used to measure the total OPEB liability at June 30, 2023 was 7.00%. The projection of cash flows used to determine the discount rate assumed that BWS contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments for current active and inactive employees. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

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***Changes in the Net OPEB Liability***

The following schedules present the changes in the net OPEB liability for the year ended June 30, 2023:

	Increase (Decrease)		
	Total OPEB Liability (a)	Net Position (b)	Net OPEB Liability (a) - (b)
<b>Balance at July 1, 2022</b>	\$ 161,441,785	\$ 118,689,650	\$ 42,752,135
<b>Changes for the fiscal year</b>			
Service cost	2,607,754	-	2,607,754
Interest on the total OPEB liability	11,172,814	-	11,172,814
Difference between expected and actual experience	(14,141,673)	-	(14,141,673)
Changes of assumptions	(4,884,122)	-	(4,884,122)
Contributions – employer	-	8,918,000	(8,918,000)
Net investment income	-	(2,258,563)	2,258,563
Benefit payments	(6,268,080)	(6,268,080)	-
Administrative expense	-	(10,108)	10,108
Other	-	(29,490)	29,490
Net changes	<u>(11,513,307)</u>	<u>351,759</u>	<u>(11,865,066)</u>
<b>Balance at June 30, 2023</b>	<u>\$ 149,928,478</u>	<u>\$ 119,041,409</u>	<u>\$ 30,887,069</u>

The healthcare trend assumption was updated in the July 1, 2022 actuarial valuation to reflect the 2022 ERS actuarial experience study, which resulted in a decrease to the total OPEB liability as of June 30, 2023.

***Sensitivity of the Net OPEB Liability to Changes in the Discount Rate***

The following presents the net OPEB liability of the BWS, as well as what the BWS's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current discount rate:

	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB liability	<u>\$ 52,025,866</u>	<u>\$ 30,887,069</u>	<u>\$ 14,062,611</u>

***Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates***

The following presents the net OPEB liability of the BWS, as well as what the BWS's net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower or one percentage point higher than the current healthcare cost trend rates:

	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
Net OPEB liability	<u>\$ 13,481,451</u>	<u>\$ 30,887,069</u>	<u>\$ 53,006,836</u>



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***OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources  
Related to OPEB***

For the year ended June 30, 2023, the BWS recognized OPEB expense of approximately \$759,000. At June 30, 2023, the BWS reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ -	\$ 19,313,721
Changes of assumptions	441,792	4,394,185
Net difference between projected and actual earnings on OPEB plan investments	-	260,875
Employer contributions subsequent to the measurement date	8,180,000	-
	<u>\$ 8,621,792</u>	<u>\$ 23,968,781</u>

At June 30, 2023, the BWS reported \$8,180,000 as deferred outflows of resources related to OPEB resulting from BWS contributions subsequent to the measurement date, which will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2024. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at June 30, 2023 will be recognized in OPEB expense as follows:

	<b>Net Deferred Inflows</b>
<b>Years ending June 30,</b>	
2024	\$ (6,139,539)
2025	(6,734,167)
2026	(6,761,848)
2027	(1,683,875)
2028	(2,207,560)
	<u>\$ (23,526,989)</u>

**15. Commitments and Contingencies**

**Contract Commitments**

Commitments, primarily for capital improvements, approximated \$503,271,000 as of June 30, 2023. Such amounts are to be funded by operating revenues, contributed capital, cash and investments on hand.

**Workers' Compensation Self-Insurance Liability**

The BWS is self-insured for workers' compensation and disability claims up to \$600,000 and in excess of \$25,000,000. The BWS has obtained excess insurance coverage for claims that are not self-insured. The BWS provides reserves for claims not covered by insurance that in the opinion of management will result in probable judgment against the BWS.

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The liability for losses and loss adjustment expenses is comprised of case reserves and incurred but not reported loss reserves (“IBNR”). Case or outstanding loss reserves represent estimates of ultimate costs to settle reported claims.

Determination of a reserve account for workers’ compensation is a significant estimate. It is reasonably possible that one or more future events could result in a material change in the estimated claims loss in the near term.

**Safe Drinking Water**

The BWS is subject to the requirements of the Safe Drinking Water Act (the “Act”), which is administered by the State Department of Health on behalf of the U.S. Environmental Protection Agency. Management believes that the BWS is in full compliance with the requirements of the Act and is not aware of any matters under the Act that may materially affect the BWS’s customer service area.

**Other Legal Matters**

The BWS is party to various legal proceedings arising in the normal course of business. The outcome of individual matters is not predictable. However, management believes that the ultimate resolution of all such matters, after considering insurance coverage, will not have a material adverse effect on the BWS’s financial position, results of operations, or liquidity.

**16. Red Hill Bulk Fuel Storage Facility**

The Navy reported a fuel spill from its Red Hill Bulk Fuel Storage Facility (“RHBFSF”) in late November 2021. On December 2, 2021, following the Navy’s determination that its Red Hill Shaft water source was contaminated with petroleum from that leak, the BWS immediately shut down the Hālawā Shaft pumping station. On December 8, 2021, the BWS took further precautionary measures and shut down its ‘Aiea Well and Hālawā Well. On March 7, 2022, the Secretary of Defense directed the Navy to permanently close the RHBFSF. As one step in the closure process, the Navy began draining the fuel from the RHBFSF on October 16, 2023.

The BWS remains vigilant in protecting its current water sources as well as developing new water sources. The related financial impact on the BWS’s financial statements cannot be reasonably determined at this time.

**Required Supplementary Information  
(Unaudited)**

**Board of Water Supply  
City and County of Honolulu  
Schedule of Proportionate Share of the Net Pension Liability  
Last Ten Fiscal Years**

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<b>Measurement Period Ended</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate Share of the Net Pension Liability</b>	<b>Covered Payroll</b>	<b>Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll</b>	<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>
June 30, 2022	0.93 %	\$ 121,159,266	\$ 39,674,737	305 %	62.80 %
June 30, 2021	0.87 %	106,763,854	41,699,341	256 %	64.25 %
June 30, 2020	0.87 %	132,989,070	39,537,387	336 %	53.18 %
June 30, 2019	0.81 %	114,807,821	38,390,927	299 %	54.87 %
June 30, 2018	0.90 %	120,348,341	36,816,067	327 %	55.48 %
June 30, 2017	0.88 %	113,350,294	35,912,898	316 %	54.80 %
June 30, 2016	0.87 %	116,342,916	34,536,085	337 %	51.28 %
June 30, 2015	0.93 %	81,526,553	33,412,761	244 %	62.42 %
June 30, 2014	0.91 %	73,141,824	32,202,276	227 %	63.92 %
June 30, 2013	0.79 %	69,992,291	29,761,149	235 %	57.96 %

See accompanying note to the required supplementary information.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Pension Contributions  
Last Ten Fiscal Years**

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<b>Year Ended</b>	<b>Statutorily Required Contribution</b>	<b>Contributions in Relation to Statutorily Required Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Contributions as a Percentage of Covered Payroll</b>
June 30, 2023	\$ 11,376,565	\$ 11,376,565	\$ -	\$ 39,568,266	28.8 %
June 30, 2022	10,978,412	10,978,412	-	39,674,737	27.7 %
June 30, 2021	10,642,688	10,642,688	-	41,699,341	25.5 %
June 30, 2020	9,411,347	9,411,347	-	39,537,387	23.8 %
June 30, 2019	7,387,857	7,387,857	-	38,390,927	19.2 %
June 30, 2018	7,561,614	7,561,614	-	36,816,067	20.5 %
June 30, 2017	6,885,401	6,885,401	-	35,912,898	19.2 %
June 30, 2016	6,647,884	6,647,884	-	34,536,085	19.2 %
June 30, 2015	6,686,641	6,686,641	-	33,412,761	20.0 %
June 30, 2014	5,931,238	5,931,238	-	32,202,276	18.4 %

See accompanying note to the required supplementary information.

**Board of Water Supply  
City and County of Honolulu**

**Note to Required Supplementary Information Required by GASB Statement No. 68  
Year Ended June 30, 2023**

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**1. Changes of Assumptions**

There were no changes of assumptions or other inputs that significantly affected the measurement of the total pension liability since the measurement period ended June 30, 2019.

Amounts reported in the schedule of the proportionate share of the net pension liability as of the measurement period ended June 30, 2022 (fiscal year ended June 30, 2023) were significantly impacted by the following changes in actuarial assumptions:

- The assumed salary increase schedules include an ultimate component for general wage inflation that may add on additional increases for individual merit and then an additional component for step rates based on service.
- Mortality rates generally decreased due to the continued improvements in using a fully generational approach and Scale MP2021.
- The rates of turnover were lowered to reflect recent experience.

Amounts reported in the schedule of the proportionate share of the net pension liability as of the measurement period ended June 30, 2022 were significantly impacted by the following changes of actuarial assumptions:

- Mortality assumptions were modified to assume longer life expectancies as well as to reflect continuous mortality improvement.

Prior to the measurement period ended June 30, 2022 (year ended June 30, 2023), there were no other factors, including the use of different assumptions, that significantly affect trends reported in these schedules.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Changes in the Net OPEB Liability and Related Ratios  
Last Ten Fiscal Years\***

	2023	2022	2021	2020	2019	2018
<b>Total OPEB liability</b>						
Service cost	\$ 2,607,754	\$ 2,597,273	\$ 2,663,788	\$ 2,598,017	\$ 2,480,098	\$ 2,404,087
Interest on the total OPEB liability	11,172,814	11,002,680	11,182,364	10,592,452	10,129,142	9,685,512
Difference between expected and actual experience	(14,141,673)	(5,031,426)	(9,526,120)	(28,736)	(2,312,485)	-
Changes of assumptions	(4,884,122)	-	(822,863)	1,247,028	2,183,447	-
Benefit payments	(6,268,080)	(6,018,504)	(6,043,131)	(5,985,550)	(5,855,338)	(5,724,727)
Net change in total OPEB liability	(11,513,307)	2,550,023	(2,545,962)	8,423,211	6,624,864	6,364,872
<b>Total OPEB liability</b>						
Beginning of year	161,441,785	158,891,762	161,437,724	153,014,513	146,389,649	140,024,777
End of year	<u>\$ 149,928,478</u>	<u>\$ 161,441,785</u>	<u>\$ 158,891,762</u>	<u>\$ 161,437,724</u>	<u>\$ 153,014,513</u>	<u>\$ 146,389,649</u>
<b>Plan fiduciary net position</b>						
Contributions – employer	\$ 8,918,000	\$ 8,452,000	\$ 8,165,000	\$ 7,945,000	\$ 8,855,338	\$ 11,724,727
Net investment income	(2,258,563)	24,898,909	1,666,459	3,430,974	5,235,037	6,029,726
Benefit payments	(6,268,080)	(6,018,504)	(6,043,131)	(5,985,550)	(5,855,338)	(5,724,727)
Administrative expense	(10,108)	(12,847)	(13,407)	(25,068)	(15,933)	(13,794)
Other	(29,490)	(13,821)	(13,477)	2,370,283	-	78,200
Net change in plan fiduciary net position	351,759	27,305,737	3,761,444	7,735,639	8,219,104	12,094,132
<b>Plan fiduciary net position</b>						
Beginning of year	118,689,650	91,383,913	87,622,469	79,886,830	71,667,726	59,573,594
End of year	<u>\$ 119,041,409</u>	<u>\$ 118,689,650</u>	<u>\$ 91,383,913</u>	<u>\$ 87,622,469</u>	<u>\$ 79,886,830</u>	<u>\$ 71,667,726</u>
Net OPEB liability	<u>\$ 30,887,069</u>	<u>\$ 42,752,135</u>	<u>\$ 67,507,849</u>	<u>\$ 73,815,255</u>	<u>\$ 73,127,683</u>	<u>\$ 74,721,923</u>
Plan fiduciary net position as a percentage of the total OPEB liability	79.40 %	73.52 %	57.51 %	54.28 %	52.21 %	48.96 %
Covered-employee payroll	\$ 41,719,615	\$ 43,914,484	\$ 41,038,526	\$ 39,801,114	\$ 38,254,167	\$ 36,968,407
Net OPEB liability as a percentage of covered-employee payroll	74.03 %	97.35 %	164.50 %	185.46 %	191.16 %	202.12 %

\* This schedule is intended to present information for ten years for each respective fiscal year. Additional years will be built prospectively as information becomes available.

See accompanying note to the required supplementary information.

**Board of Water Supply  
City and County of Honolulu  
Schedule of OPEB Contributions  
Last Ten Fiscal Years**

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<b>Year Ended</b>	<b>Actuarially Determined Contribution</b>	<b>Contributions in Relation to the Actuarially Determined Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered- Employee Payroll</b>	<b>Contributions as a Percentage of Covered- Employee Payroll</b>
June 30, 2023	\$ 8,180,000	\$ 8,180,000	\$ -	\$ 41,993,204	19.5 %
June 30, 2022	8,918,000	8,918,000	-	41,719,615	21.4 %
June 30, 2021	8,452,000	8,452,000	-	43,914,484	19.2 %
June 30, 2020	8,165,000	8,165,000	-	41,038,526	19.9 %
June 30, 2019	7,945,000	7,945,000	-	39,801,114	20.0 %
June 30, 2018	8,467,000	8,855,338	(388,338)	38,254,167	23.1 %
June 30, 2017	8,181,000	11,724,727	(3,543,727)	36,968,407	31.7 %
June 30, 2016	8,826,000	11,728,539	(2,902,539)	35,467,175	33.1 %
June 30, 2015	8,528,000	10,750,399	(2,222,399)	34,329,374	31.3 %
June 30, 2014	8,977,000	11,982,667	(3,005,667)	32,993,059	36.3 %

See accompanying note to the required supplementary information.



# Board of Water Supply City and County of Honolulu

## Note to Required Supplementary Information Required by GASB Statement No. 75 Year Ended June 30, 2023

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### 1. Significant Methods and Assumptions

The actuarially determined annual required contributions (“ARC”) for the year ended June 30, 2023 was developed in the July 1, 2020 valuation. The following summarizes the significant methods and assumptions used to determine the actuarially determined contribution for the year ended June 30, 2023:

Actuarial valuation date	July 1, 2020
Actuarial cost method	Entry Age Normal
Amortization method	Level percent, closed
Equivalent single amortization period	15.0 as of June 30, 2023
Asset valuation method	Smoothed
Inflation	2.50%
Investment rate of return	7.00%
Payroll growth	3.50%
Salary increases	3.50% to 7.00% including inflation
Demographic assumptions	Based on the experience study covering the five-year period ending June 30, 2018 as conducted for the Hawaii Employees’ Retirement System (“ERS”)
Mortality	System-specific mortality tables utilizing scale BB to project generational mortality improvement
Participation rates	98% healthcare participation assumption for retirees that receive 100% of the Base Monthly Contribution. Healthcare participation rates of 25%, 65% and 90% for retirees that receive 0%, 50% or 75% of the base monthly contribution, respectively. 100% for life insurance and 98% for Medicare Part B.
Healthcare cost trend rates	
PPO	Initial rate of 7.5%, declining to an ultimate rate of 4.70% after 13 years
HMO	Initial rate of 7.5%, declining to an ultimate rate of 4.70% after 13 years
Part B	Initial rate of 5%, declining to an ultimate rate of 4.70% after 10 years
Dental	Initial rate of 5% for the first year, followed by 4% for all future years
Vision	Initial rate of 0% for the first year, followed by 2.5% for all future years
Life insurance	0.00%

The actuarial valuation as of July 1, 2009, which was used to develop the ARC for fiscal year 2011, included a reduction to the discount rate used from the prior valuation. The discount rate changed from a blended discount rate of 7% – 8% to 7%. This resulted in an overall increase to the actuarially determined OPEB liability and the ARC.

There were no other factors that significantly affected trends in the amounts reported in the schedule of changes in the net OPEB liability and related ratios or the schedule of OPEB contributions.

## **Supplementary Information**

**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
<b>Water System Revenue Bonds</b>					
<b>Series 2014A (Non-AMT)</b>					
<b>Tax-Exempt Serial Bonds</b>					
Insured Serial Bonds	5.000 %	12/9/2014	7/1/2023	(2)	\$ 5,585,000
Insured Serial Bonds	3.000 %	12/9/2014	7/1/2024	(2)	410,000
Insured Serial Bonds	5.000 %	12/9/2014	7/1/2024	(2)	5,455,000
Insured Serial Bonds	5.000 %	12/9/2014	7/1/2025	7/1/2024	6,165,000
Insured Serial Bonds	3.000 %	12/9/2014	7/1/2028	(2)	930,000
Insured Serial Bonds	3.250 %	12/9/2014	7/1/2031	(2)	4,470,000
					<u>23,015,000</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2014B (AMT)</b>					
<b>Taxable Serial Bonds</b>					
Insured Serial Bonds	2.915 %	12/9/2014	7/1/2023	(2)	1,585,000
Insured Serial Bonds	3.135 %	12/9/2014	7/1/2024	(2)	1,625,000
Insured Serial Bonds	3.285 %	12/9/2014	7/1/2025	(2)	1,670,000
Insured Serial Bonds	3.385 %	12/9/2014	7/1/2026	(2)	1,730,000
Insured Serial Bonds	3.485 %	12/9/2014	7/1/2027	(2)	1,785,000
Insured Serial Bonds	3.585 %	12/9/2014	7/1/2028	(2)	1,845,000
					<u>10,240,000</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2020A (Tax Exempt)</b>					
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2023	(2)	1,145,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2024	(2)	1,200,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2025	(2)	1,265,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2026	(2)	1,330,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2027	(2)	1,395,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2028	(2)	1,470,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2029	(2)	1,545,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2030	(2)	1,620,000

- (1) Call dates indicated are optional.  
(2) Noncallable.

(continued)

See report of independent auditors.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2031	7/1/2030	1,705,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2032	7/1/2030	1,790,000
Insured Serial Bonds	5.000 %	3/25/2020	7/1/2033	7/1/2030	1,885,000
Insured Serial Bonds	2.500 %	3/25/2020	7/1/2034	(2)	1,955,000
Insured Serial Bonds	4.000 %	3/25/2020	7/1/2035	7/1/2030	2,020,000
Insured Serial Bonds	4.000 %	3/25/2020	7/1/2036	7/1/2030	2,105,000
Insured Serial Bonds	4.000 %	3/25/2020	7/1/2037	7/1/2030	2,190,000
Insured Serial Bonds	2.625 %	3/25/2020	7/1/2038	(2)	2,265,000
Insured Serial Bonds	4.000 %	3/25/2020	7/1/2039	7/1/2030	2,340,000
Insured Serial Bonds	2.750 %	3/25/2020	7/1/2040	(2)	2,420,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2041	7/1/2030	2,490,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2042	7/1/2030	2,565,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2043	7/1/2030	2,645,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2044	7/1/2030	2,725,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2045	7/1/2030	2,805,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2046	7/1/2030	2,895,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2047	7/1/2030	2,980,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2048	7/1/2030	3,070,000
Insured Serial Bonds	3.000 %	3/25/2020	7/1/2049	7/1/2030	3,165,000
					<b>56,985,000</b>

**Water System Revenue Bonds**

**Series 2020B**

**Taxable Serial Bonds**

Insured Serial Bonds	1.661 %	3/25/2020	7/1/2023	(2)	600,000
Insured Serial Bonds	1.720 %	3/25/2020	7/1/2024	(2)	610,000
Insured Serial Bonds	1.770 %	3/25/2020	7/1/2025	(2)	4,535,000
Insured Serial Bonds	1.933 %	3/25/2020	7/1/2026	(2)	4,620,000
Insured Serial Bonds	1.983 %	3/25/2020	7/1/2027	(2)	4,715,000
Insured Serial Bonds	2.027 %	3/25/2020	7/1/2028	(2)	4,815,000
Insured Serial Bonds	2.077 %	3/25/2020	7/1/2029	(2)	4,910,000
Insured Serial Bonds	2.127 %	3/25/2020	7/1/2030	(2)	5,015,000

(1) Call dates indicated are optional.

(2) Noncallable.

(continued)

See report of independent auditors.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

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	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
Insured Serial Bonds	2.227 %	3/25/2020	7/1/2031	(2)	5,125,000
Insured Serial Bonds	2.327 %	3/25/2020	7/1/2032	(2)	5,245,000
Insured Serial Bonds	2.377 %	3/25/2020	7/1/2033	(2)	5,370,000
					45,560,000

**Water System Revenue Bonds  
Series 2021A (Tax Exempt)**

Insured Serial Bonds	5.000 %	3/25/2021	7/1/2023	(2)	900,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2024	(2)	945,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2025	(2)	995,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2026	(2)	1,045,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2027	(2)	1,100,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2028	(2)	1,155,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2029	(2)	1,215,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2030	(2)	1,275,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2031	(2)	1,340,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2032	7/1/2031	1,410,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2033	7/1/2031	1,480,000
Insured Serial Bonds	3.000 %	3/25/2021	7/1/2034	7/1/2031	1,540,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2035	7/1/2031	1,595,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2036	7/1/2031	1,660,000
Insured Serial Bonds	3.000 %	3/25/2021	7/1/2037	7/1/2031	1,720,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2038	7/1/2031	1,785,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2039	7/1/2031	1,855,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2040	7/1/2031	1,930,000
Insured Serial Bonds	3.000 %	3/25/2021	7/1/2041	7/1/2031	2,000,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2042	7/1/2031	2,070,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2043	7/1/2031	2,155,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2044	7/1/2031	2,245,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2045	7/1/2031	2,335,000
Insured Serial Bonds	4.000 %	3/25/2021	7/1/2046	7/1/2031	2,430,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2047	7/1/2031	2,545,000

- (1) Call dates indicated are optional.  
(2) Noncallable.

(continued)

See report of independent auditors.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2048	7/1/2031	2,675,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2049	7/1/2031	2,810,000
Insured Serial Bonds	5.000 %	3/25/2021	7/1/2050	7/1/2031	2,955,000
					<u>49,165,000</u>

**Water System Revenue Bonds**

**Series 2021B**

**Taxable Serial Bonds**

Insured Serial Bonds	0.360 %	3/25/2021	7/1/2023	(2)	3,430,000
Insured Serial Bonds	0.520 %	3/25/2021	7/1/2024	(2)	3,445,000
Insured Serial Bonds	0.950 %	3/25/2021	7/1/2025	(2)	990,000
Insured Serial Bonds	1.160 %	3/25/2021	7/1/2026	(2)	1,000,000
Insured Serial Bonds	1.450 %	3/25/2021	7/1/2027	(2)	7,700,000
Insured Serial Bonds	1.600 %	3/25/2021	7/1/2028	(2)	6,890,000
Insured Serial Bonds	1.820 %	3/25/2021	7/1/2029	(2)	7,965,000
Insured Serial Bonds	1.970 %	3/25/2021	7/1/2030	(2)	8,155,000
Insured Serial Bonds	2.070 %	3/25/2021	7/1/2031	(2)	3,880,000
					<u>43,455,000</u>

**Water System Revenue Bonds**

**Series 2022A (Tax Exempt)**

Insured Serial Bonds	5.000 %	3/23/2022	7/1/2023	(2)	1,385,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2024	(2)	1,460,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2025	(2)	1,530,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2026	(2)	1,610,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2027	(2)	1,695,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2028	(2)	1,780,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2029	(2)	1,870,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2030	(2)	1,965,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2031	(2)	2,070,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2032	(2)	2,175,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2033	7/1/2032	2,285,000

(1) Call dates indicated are optional.

(2) Noncallable.

(continued)

See report of independent auditors.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2034	7/1/2032	2,405,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2035	7/1/2032	2,515,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2036	7/1/2032	2,615,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2037	7/1/2032	2,735,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2038	7/1/2032	2,865,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2039	7/1/2032	2,980,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2040	7/1/2032	3,100,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2041	7/1/2032	3,230,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2042	7/1/2032	3,360,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2043	7/1/2032	3,495,000
Insured Serial Bonds	4.000 %	3/23/2022	7/1/2044	7/1/2032	3,640,000
Insured Serial Bonds	5.000 %	3/23/2022	7/1/2048	7/1/2032	4,290,000
					<u>57,055,000</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2022A (2047 Term Bond)</b>					
2047 Term Bond	4.000 %	3/23/2022	7/1/2045	7/1/2032	3,790,000
2047 Term Bond	4.000 %	3/23/2022	7/1/2046	7/1/2032	3,940,000
2047 Term Bond	4.000 %	3/23/2022	7/1/2047	7/1/2032	4,105,000
					<u>11,835,000</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2022A (2051 Term Bond)</b>					
2051 Term Bond	3.000 %	3/23/2022	7/1/2049	(2)	4,465,000
2051 Term Bond	3.000 %	3/23/2022	7/1/2050	(2)	4,600,000
2051 Term Bond	3.000 %	3/23/2022	7/1/2051	(2)	4,745,000
					<u>13,810,000</u>

(1) Call dates indicated are optional.

(2) Noncallable.

(continued)

See report of independent auditors.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
<b>Water System Revenue Bonds</b>					
<b>Series 2022B</b>					
<b>Taxable Serial Bonds</b>					
Insured Serial Bonds	1.897 %	3/23/2022	7/1/2023	(2)	215,000
Insured Serial Bonds	2.144 %	3/23/2022	7/1/2024	(2)	220,000
Insured Serial Bonds	2.174 %	3/23/2022	7/1/2025	(2)	225,000
Insured Serial Bonds	2.274 %	3/23/2022	7/1/2026	(2)	6,620,000
Insured Serial Bonds	2.377 %	3/23/2022	7/1/2027	(2)	55,000
Insured Serial Bonds	2.477 %	3/23/2022	7/1/2028	(2)	55,000
Insured Serial Bonds	2.489 %	3/23/2022	7/1/2029	(2)	1,955,000
Insured Serial Bonds	2.539 %	3/23/2022	7/1/2030	(2)	1,995,000
Insured Serial Bonds	2.589 %	3/23/2022	7/1/2031	(2)	2,040,000
Insured Serial Bonds	2.639 %	3/23/2022	7/1/2032	(2)	6,510,000
Insured Serial Bonds	2.789 %	3/23/2022	7/1/2033	(2)	6,690,000
Insured Serial Bonds	2.939 %	3/23/2022	7/1/2034	(2)	8,255,000
Insured Serial Bonds	3.039 %	3/23/2022	7/1/2035	(2)	8,415,000
Insured Serial Bonds	3.139 %	3/23/2022	7/1/2036	(2)	8,770,000
					<u>52,020,000</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2023 (Tax Exempt)</b>					
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2034	7/1/2033	565,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2035	7/1/2033	590,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2036	7/1/2033	620,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2037	7/1/2033	655,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2038	7/1/2033	690,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2039	7/1/2033	725,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2040	7/1/2033	760,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2041	7/1/2033	800,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2042	7/1/2033	840,000
Insured Serial Bonds	5.000 %	3/23/2023	7/1/2043	7/1/2033	885,000
					<u>7,130,000</u>

- (1) Call dates indicated are optional.  
(2) Noncallable.

(continued)

See report of independent auditors.



**Board of Water Supply  
City and County of Honolulu  
Schedule of Bonds Payable  
June 30, 2023**

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	<b>Interest Rate</b>	<b>Bond Dated</b>	<b>Maturing Serially From</b>	<b>Call Dates (1)</b>	<b>Outstanding June 30, 2023</b>
<b>Water System Revenue Bonds Series 2023 (2048 Term Bond)</b>					
2048 Term Bond	5.000 %	3/23/2023	7/1/2044	7/1/2033	930,000
2048 Term Bond	5.000 %	3/23/2023	7/1/2045	7/1/2033	975,000
2048 Term Bond	5.000 %	3/23/2023	7/1/2046	7/1/2033	1,025,000
2048 Term Bond	5.000 %	3/23/2023	7/1/2047	7/1/2033	1,080,000
2048 Term Bond	5.000 %	3/23/2023	7/1/2048	7/1/2033	<u>1,135,000</u>
					<u>5,145,000</u>
<b>Water System Revenue Bonds Series 2023 (2052 Term Bond)</b>					
2052 Term Bond	5.000 %	3/23/2023	7/1/2044	7/1/2033	1,190,000
2052 Term Bond	5.000 %	3/23/2023	7/1/2045	7/1/2033	1,255,000
2052 Term Bond	5.000 %	3/23/2023	7/1/2046	7/1/2033	1,320,000
2052 Term Bond	5.000 %	3/23/2023	7/1/2047	7/1/2033	<u>1,385,000</u>
					<u>5,150,000</u>
					<u>\$ 380,565,000</u>

- (1) Call dates indicated are optional.  
(2) Noncallable.

(concluded)

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**Board of Water Supply  
City and County of Honolulu  
Schedule of Net Revenue Requirement  
Year Ended June 30, 2023**

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<b>Revenues</b>		
Water sales		\$ 242,482,076
Interest		11,028,764
Other		<u>2,230,241</u>
Total revenues		<u>255,741,081</u>
<b>Deductions</b>		
Operating expenses		214,961,767
Less: Depreciation expense		<u>(53,380,554)</u>
Total deductions		<u>161,581,213</u>
Net revenues		<u>\$ 94,159,868</u>
<b>Net revenue requirement</b>		
Greater of		
1) Aggregate debt service		\$ 27,244,240
Required deposits		<u>-</u>
		<u>\$ 27,244,240</u>
2) Aggregate debt service		\$ 27,244,240
Minimum required debt service ratio		<u>x 1.20</u>
Net revenue requirement		<u>\$ 32,693,088</u>
<b>Net revenue to aggregate debt service ratio</b>		<u>3.46</u>

See report of independent auditors.