

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

FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION  
WITH INDEPENDENT AUDITOR'S REPORT

Fiscal Years Ended June 30, 2019 and 2018

**BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU**

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**Board of Water Supply  
City and County of Honolulu  
INTRODUCTION  
Fiscal Year Ended June 30, 2019**

The Board of Water Supply of the City and County of Honolulu (BWS) is pleased to present its Annual Financial Report for fiscal year 2019. 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 auditor's 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 above 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 (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 2019, 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, 171 reservoirs, and over 2,100 miles of pipeline.

The BWS is a financially self-sufficient, semi-autonomous agency of the City and County of Honolulu. 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 10 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.

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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, conserve and manage Oahu's water supplies and watersheds now and into the future through adaptive and integrated strategies.
- **Operational Sustainability (Dependable).** Build an effective organization that continuously works to improve dependable service.
- **Financial Sustainability (Affordable).** Implement sound fiscal strategies to provide safe, dependable and affordable water service.

**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 40,079 chemical tests, 34,056 microbiological tests, and collected 16,888 samples from BWS sources, distribution systems and treatment facilities to ensure all water served is safe to drink; tests performed during Fiscal Year 2019 include regulatory compliance testing, groundwater quality testing, and response to customer inquiries about water quality; BWS continues to monitor the Red Hill Fuel Storage Facilities and provide input to the Administrative Order of Consent as subject matter experts.
- In June 2019, 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.
- Expansion of the Honouliuli Water Recycling Facility R-1 is underway, which will increase irrigation treatment capacity by two million gallons a day (mgd), for a total of 10 mgd of recycled water; new disk filters will replace the sand filters, which will result in decreased effluent loss during backwashing, create more beneficial reuse water, and reduce the maintenance cost associated with the sand filters; the new UV disinfection system is significantly more energy efficient and will reduce electricity costs and the carbon footprint; and the additional recycled water will provide irrigation water for new Ewa developments and conserve the limited freshwater resource.

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- BWS's new water conservation rebate program for efficient clothes washing machines, rain barrels, and weather-based irrigation controllers resulted in the issuance of \$143,330 in rebates and an annual estimated freshwater savings of more than 12 million gallons per year.
- BWS is pursuing three loi kalo restoration projects on BWS lands in Makaha, Waihee, and Manoa; these agricultural farms have watershed protection and cultural components; a community nonprofit group is evaluated and selected through an RFP process; and this effort builds community support of the BWS mission for the protection and management of Oahu's freshwater resources.
- In collaboration with the Water Research Foundation, completed a climate change vulnerability assessment of Oahu's water supply from future droughts, and coastal water system infrastructure subject to sea level rise and coastal erosion.
- BWS staff held 29 outdoor water conservation classes at the Halawa Xeriscape Garden. 560 community members attended these classes focused on reducing water use through efficient landscaping.
- The BWS sponsored its 41st annual Water Conservation Week Poster Contest and the 11th annual Water Conservation Week Poetry Contest, receiving more than 974 posters and 442 poems from 51 Oahu schools, focused on the theme "Do Your Part, Be Water Smart. All winning entries will be featured in the 2020 Water Conservation Calendar scheduled for distribution in December 2019.

**Operational Sustainability (Dependable)**

- The BOD adopted the revision to the Schedule of Rates and Changes for the Furnishing of Water and Water Service for fiscal years 2019-2023, which supports city initiatives by providing limited waivers for affordable and homeless dwellings and for residential fire sprinkler retrofits, and the first rate change under this revised schedule begins July 1, 2019.
- May 2019 marked the fourth year of the Stakeholder Advisory Group (SAG) - a group comprised of nearly 30 local residents, civic organization leaders, and business and environmental professionals, covering all City Council districts - whose purpose is to provide important feedback on the BWS Water Master Plan, financial plan, proposed rate study and other important initiatives such as water conservation, recycled water and watershed management; and the SAG effort demonstrates the BWS commitment to increase responsiveness and transparency of public engagement and communications.
- Responded to 330 main breaks, or about 16 breaks per 100 miles of pipeline, and conducted leak detection surveys for 372 miles of pipeline, which resulted in the Leak Detection Team finding and repairing 50 leaks before major property damages or system interruptions occurred.

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- Developed a spatial main break analysis tool to provide increased insights for improving the construction and operation of the water system by correlating past main breaks with various factors such as pipe size, type, and age, soil type and pressure, and presenting the information in a geospatial, map-based context.
- BWS staff helped protect Oahu's water resources and prevent damage to BWS infrastructure by handling 11,812 One Call locate requests and providing in-field support for 684 water line leaks and breaks. The BWS staff proactively investigated 24,371 meters to ensure accurate and timely billing and assisted 4,708 customers with concerns about bills reflecting high water consumption. BWS staff assisted 149,121 customers: 132,134 (88.6%) by phone; 4,216 (2.8%) in-person; 12,560 (8.4%) via web requests; 211 (0.1%) by mail and fax.

**Financial Sustainability (Affordable)**

- As of June 30, 2019, awarded \$57 million in construction contracts and \$22.5 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 corroded water mains and fire protection improvements;
  - Scheduled construction work for the replacement of approximately eight miles of pipelines in the Hawaii Kai, Honolulu, Kailua, Makapuu, Makiki, Moanalua, Pacific Heights, Pearl City, Waianae, and Waiau areas;
  - Initiated design work for future construction in the Aiea, Ala Moana, Ewa Beach, Hauula, Honolulu, Kalama Valley, Kaneohe, Manoa, Pupukea, Waianae, and Waipahu areas;
  - Renovation and improvements to the following BWS facilities: Aina Koa 1100 Reservoir, Diamond Head 180 Reservoir, Haleiwa Wells, Hoaeae Wells, Kalihi Corporation Yard, Kamehame 820 Reservoir, Kunia Booster, Makaha Wells VI, Mililani Wells IV, Newtown Wells, Niu Valley Highlands 297 Reservoir, Wahiawa Wells I and II, Waialae Wells I, Waialae Iki 180 Reservoir, Waimanalo 230 Reservoir, and Wilder Wells.
- BWS staff received mail-in payments via lockbox, which continued to be the most popular method of payment for BWS customers, with 33.1% using the service, down 1.7% from last fiscal year. Automatic bill payments account for 32.2% of the BWS' total bill collections. Credit card payments account for 17.9% of payments, a 1.5% increase over last fiscal year. Online payments account for 8.7%, walk-in customers for 4.2%, payments made at satellite city hall locations for 2.2%, and other accounts for 1.7% of payments received.

## INDEPENDENT AUDITOR'S REPORT

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

### Report on the Financial Statements

We have audited the accompanying financial statements of the Board of Water Supply (the "BWS"), a component unit of the City and County of Honolulu (the "City"), as of and for the fiscal years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the BWS's basic financial statements as listed in the table of contents.

### Management's Responsibility for the Financial Statements

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

### Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

## **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the BWS as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that management's discussion and analysis on pages 10 through 15 and the schedules of proportionate share of the net pension liability, contributions (pension), changes in the net OPEB liability and related ratios, and contributions (OPEB) on pages 56 to 62 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Other Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements that comprise the BWS's basic financial statements. The introduction and 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 were 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.

The introduction has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

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

In accordance with *Government Auditing Standards*, we have also issued our report dated October 31, 2019 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.

*N + K CPAs, Inc.*

Honolulu, Hawaii  
October 31, 2019

**Board of Water Supply  
City and County of Honolulu  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
Fiscal Years Ended June 30, 2019 and 2018**

This section presents management's discussion and analysis of the BWS's financial condition and activities for the fiscal year ended June 30, 2019. This information should be read in conjunction with the BWS's basic financial statements.

**Financial Highlights**

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 \$46.2 million in fiscal year 2019 compared to the 46.2 million increase in fiscal year 2018.
- Total assets were \$1.7 billion in fiscal year 2019 and \$1.6 billion in fiscal year 2018, which exceeded liabilities by \$1.2 billion and \$1.1 billion at June 30, 2019 and 2018, respectively.
- The BWS's unrestricted current assets at June 30, 2019 were 5.5 times its related current liabilities compared to 4.7 times at June 30, 2018.
- The BWS's debt to equity ratio was 25.5% and 26.2% at June 30, 2019 and 2018, 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.

Management's discussion and analysis ("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.

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MANAGEMENT'S DISCUSSION AND ANALYSIS  
Fiscal Years Ended June 30, 2019 and 2018**

The statement of cash flows present 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.

**Results of Operations**

**CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION  
(Amounts in thousands)**

	<u>2019</u>	<u>2018</u>	<u>% Change</u>
Operating revenues	\$ <u>228,662</u>	\$ <u>232,378</u>	-1.6%
Operating expenses			
Administrative and general	72,031	70,494	2.2%
Depreciation	47,266	47,337	-0.1%
Power and pumping	35,139	32,065	9.6%
Other operating expenses	<u>49,563</u>	<u>47,850</u>	3.6%
Total operating expenses	<u>203,999</u>	<u>197,746</u>	3.2%
Operating income	<u>24,663</u>	<u>34,632</u>	-28.8%
Nonoperating revenues (expenses)			
Interest income	7,549	6,097	23.8%
Interest expense	(9,661)	(9,837)	-1.8%
Others	<u>10,710</u>	<u>(6,169)</u>	-273.6%
Total nonoperating revenues (expenses)	<u>8,598</u>	<u>(9,909)</u>	-186.8%
Contributions in aid of construction	<u>12,976</u>	<u>21,509</u>	-39.7%
Change in net position	\$ <u><u>46,237</u></u>	\$ <u><u>46,232</u></u>	

The increase in net position for the fiscal year ended June 30, 2019 was \$46.2 million, compared to an increase of \$46.2 million for the fiscal year ended June 30, 2018.

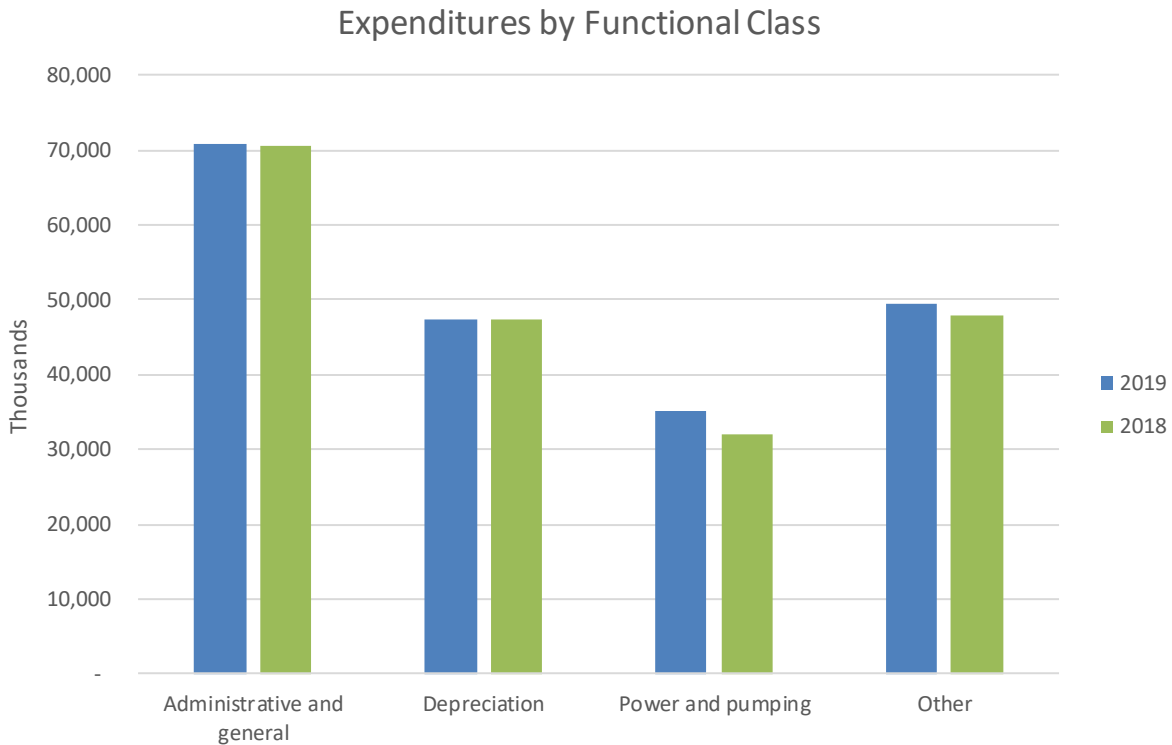
Operating revenues for the fiscal year ended June 30, 2019 totaled \$228.7 million, a decrease of \$3.7 million or 1.6% from the fiscal year ended June 30, 2018. This was mainly due to a decrease in agriculture and single family residential water consumption.

Total operating expenses increased by \$6.2 million in fiscal year 2019. Factors contributing to this change are explained below:

- Power and pumping expenses increased by \$3.1 million in fiscal year 2019 mainly due to increases in electricity costs.
- Other operating expenses increased by \$1.7 million during fiscal year 2019 mainly due to the increase in transmission and distribution costs.

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MANAGEMENT'S DISCUSSION AND ANALYSIS  
Fiscal Years Ended June 30, 2019 and 2018**

For the fiscal year ended June 30, 2019, net nonoperating revenue increased by \$18.5 million. This was the result of an increase in interest income of \$1.4 million and an increase in net realized and unrealized gain on investments of \$17.1 million.



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 \$13.0 million in fiscal year 2019 compared to \$21.5 million in fiscal year 2018. The decrease was primarily due to decreases in contributions by private developers of \$3.8 million and WSFC revenue of \$3.3 million. During the fiscal year ended June 30, 2019 the major developments were Kalaeloa Boulevard Improvements and Hoopili Phase 3, Parcels 5 and 6.

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Fiscal Years Ended June 30, 2019 and 2018**

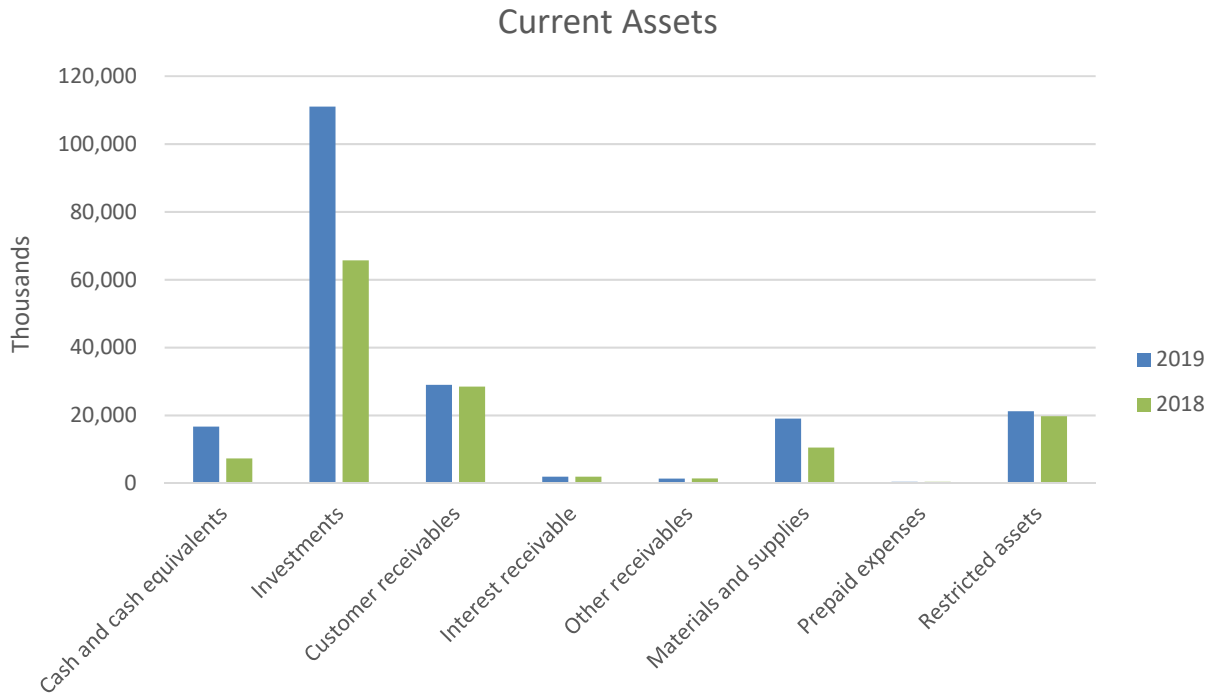
**Financial Condition**

**CONDENSED STATEMENTS OF NET POSITION  
(Amounts in thousands)**

	<u>2019</u>	<u>2018</u>	<u>% Change</u>
Current assets	\$ 200,951	\$ 135,696	48.1%
Noncurrent assets			
Capital assets, net	1,188,906	1,150,029	3.4%
Investments	283,878	320,355	-11.4%
Restricted and other assets	<u>24,351</u>	<u>22,408</u>	8.7%
Total assets	<u>1,698,086</u>	<u>1,628,488</u>	4.3%
Deferred outflows of resources	<u>53,064</u>	<u>57,873</u>	-8.3%
Total assets and deferred outflows of resources	\$ <u>1,751,150</u>	\$ <u>1,686,361</u>	3.8%
Current liabilities	\$ 54,045	\$ 44,731	20.8%
Noncurrent liabilities			
Bonds payable, noncurrent	213,780	224,342	-4.7%
Notes payable, noncurrent	78,163	64,255	21.6%
Net pension liability	120,348	113,350	6.2%
Net OPEB liability	73,128	74,722	-2.1%
Other liabilities	<u>11,766</u>	<u>11,993</u>	-1.9%
Total liabilities	<u>551,230</u>	<u>533,393</u>	3.3%
Deferred inflows of resources	<u>6,408</u>	<u>5,693</u>	12.6%
Net position			
Net investment in capital assets	914,739	882,809	3.6%
Restricted for capital activity and debt service	22,147	18,117	22.2%
Unrestricted	<u>256,626</u>	<u>246,349</u>	4.2%
Total net position	<u>1,193,512</u>	<u>1,147,275</u>	4.0%
Total liabilities, deferred inflows of resources and net position	\$ <u>1,751,150</u>	\$ <u>1,686,361</u>	3.8%

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MANAGEMENT'S DISCUSSION AND ANALYSIS  
Fiscal Years Ended June 30, 2019 and 2018**

The BWS's current assets were 3.8 and 3.0 times its related current liabilities as of June 30, 2019 and 2018, respectively. The ratio increase at June 30, 2019 was due to an increase in cash and cash equivalents as well as investments.



As of June 30, 2019, net capital assets increased by \$38.9 million. The increase in fiscal year 2019 was primarily from the additions to construction work in progress.

Restricted and other assets increased by \$1.9 million in fiscal year 2019. The increase is primarily due to an increase in cash and cash equivalents.

Bonds payable decreased by \$10.3 million as of June 30, 2019. The decrease represents scheduled debt service payments and the amortization of bond premiums during fiscal year 2019.

Notes payable increased by \$14.9 million as of June 30, 2019. The increase is primarily due to the receipt of loan proceeds for projects utilizing financing from the state revolving fund loan program totaling \$18.0 million.

The net pension liability increased by \$7.0 million as of June 30, 2019 which was mainly due to an increase in the BWS's proportionate share of the collective net pension liability and unfavorable differences between expected and actual experience with regard to economic or demographic factors.

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The net OPEB liability decreased by \$1.6 million as of June 30, 2019, which was mainly due to favorable differences between projected and actual earnings on OPEB plan investments and employer contributions exceeding the minimum required contribution in fiscal year 2018.

**Capital Assets and Long-Term Debt**

During fiscal years 2019 and 2018, the BWS capitalized \$50.9 million and \$37.3 million, respectively, to its utility plant in service. Major assets added in fiscal year 2019 were Wilhelmina Rise Water System Improvements, Part IV, \$6.5 million; Energy Savings Performance Contract, \$5.4 million; Kalihi Water System Improvements, Part III, \$4.9 million; Liliha Water System Improvements, \$2.8 million; and Makakilo 920' and Waipahu 228' No. 2 Reservoir Facility Repairs \$2.7 million.

The BWS issues long-term bonds to finance part of its capital improvement program. The BWS's debt to equity ratio has remained fairly constant at 25.5%, 26.2% and 26.7% for fiscal years 2019, 2018, and 2017, respectively.

All outstanding bonds have been assigned underlying ratings of Aa2 from Moody's Investors Service and AA+ from Fitch Ratings.

**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 fiscal years ended June 30, 2019 and 2018.

**Request 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 requests for additional financial information should be addressed to the Board of Water Supply, City and County of Honolulu, 630 S. Beretania Street, Honolulu, Hawaii 96813.

**Board of Water Supply  
City and County of Honolulu  
STATEMENTS OF NET POSITION  
June 30, 2019 and 2018**

	<b>2019</b>	<b>2018</b>
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	\$ 16,736,721	\$ 7,343,537
Investments	111,033,472	65,688,974
Interest receivable	1,982,363	1,946,243
Customer receivables		
Billed, less allowance for uncollectible accounts of \$3,371,847 in 2019 and \$2,954,984 in 2018	17,354,558	15,743,241
Unbilled	11,654,265	12,779,125
Other receivables, less allowances for uncollectible accounts of \$510,868 in 2019 and 2018	1,397,457	1,425,880
Materials and supplies	19,099,033	10,519,111
Prepaid expenses	456,446	471,838
Restricted assets		
Cash and cash equivalents	21,236,291	18,856,615
Investments	--	921,705
Total current assets	200,950,606	135,696,269
Noncurrent assets		
Capital assets		
Infrastructure	1,556,510,343	1,527,922,394
Building and improvements	186,259,899	176,188,768
Equipment and machinery	328,433,517	320,775,882
	2,071,203,759	2,024,887,044
Less accumulated depreciation	(1,073,891,290)	(1,029,116,807)
	997,312,469	995,770,237
Land	32,373,064	32,373,064
Construction work in progress	159,220,947	121,885,982
Net capital assets	1,188,906,480	1,150,029,283
Investments	283,877,536	320,354,548
Restricted assets		
Cash and cash equivalents	3,201,881	--
Investments	21,149,006	22,407,800
Other assets	659	706
Total noncurrent assets	1,497,135,562	1,492,792,337
Total assets	1,698,086,168	1,628,488,606
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred loss on refunding of debt	15,572,789	17,085,994
Deferred outflows of resources related to pensions	27,773,118	31,931,839
Deferred outflows of resources related to OPEB	9,718,371	8,855,338
Total deferred outflows of resources	53,064,278	57,873,171
Total assets and deferred outflows of resources	\$ 1,751,150,446	\$ 1,686,361,777

See accompanying notes to financial statements.



**Board of Water Supply  
City and County of Honolulu  
STATEMENTS OF NET POSITION (Continued)  
June 30, 2019 and 2018**

	<b>2019</b>	<b>2018</b>
<b>LIABILITIES</b>		
Current liabilities		
Payable from current assets		
Accounts payable	\$ 14,385,208	\$ 12,163,691
Contracts payable, including retainages	11,416,826	5,072,065
Accrued vacation, current portion	2,941,584	2,851,001
Accrued workers' compensation, current portion	1,068,132	1,033,217
Other	2,997,372	3,832,949
Total payable from current assets	32,809,122	24,952,923
Payable from restricted assets		
Contracts payable, including retainages	3,585,739	3,267,464
Accrued interest payable	4,706,312	4,781,189
Bonds payable, current portion	8,820,000	8,550,000
Notes payable, current portion	4,124,240	3,179,667
Total payable from restricted assets	21,236,291	19,778,320
Total current liabilities	54,045,413	44,731,243
Noncurrent liabilities		
Bonds payable, noncurrent	213,780,455	224,342,342
Notes payable, noncurrent portion	78,163,163	64,255,055
Net pension liability	120,348,341	113,350,294
Net OPEB liability	73,127,683	74,721,923
Accrued vacation, noncurrent portion	3,832,552	4,165,279
Accrued workers' compensation	2,780,710	2,515,969
Customer advances	2,414,284	1,606,003
Other	2,737,613	3,704,937
Total noncurrent liabilities	497,184,801	488,661,802
Total liabilities	551,230,214	533,393,045
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Deferred inflows of resources related to pensions	3,450,266	4,375,619
Deferred inflows of resources related to OPEB	2,957,650	1,317,856
Total deferred inflows of resources	6,407,916	5,693,475
<b>NET POSITION</b>		
Net investment in capital assets	914,739,333	882,809,242
Restricted for capital activity and debt service	22,147,205	18,116,438
Unrestricted	256,625,778	246,349,577
Total net position	1,193,512,316	1,147,275,257
Total liabilities, deferred inflows of resources and net position	\$ 1,751,150,446	\$ 1,686,361,777

See accompanying notes to financial statements.

**Board of Water Supply  
City and County of Honolulu  
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION  
Fiscal Years Ended June 30, 2019 and 2018**

	<u>2019</u>	<u>2018</u>
<b>OPERATING REVENUES</b>		
Water sales	\$ 226,347,969	\$ 229,526,599
Other, principally contract and service fees	<u>2,313,872</u>	<u>2,851,249</u>
Total operating revenues	<u>228,661,841</u>	<u>232,377,848</u>
<b>OPERATING EXPENSES</b>		
Administrative and general	72,030,601	70,493,764
Depreciation	47,266,015	47,337,006
Power and pumping	35,139,272	32,064,982
Transmission and distribution	25,232,703	22,693,884
Maintenance	11,430,094	12,663,811
Water reclamation	5,313,092	5,164,896
Customers' accounting and collection	4,287,336	4,022,619
Central administrative services expense fees	3,300,000	3,300,000
Source of supply	<u>--</u>	<u>4,418</u>
Total operating expenses	<u>203,999,113</u>	<u>197,745,380</u>
Operating income	<u>24,662,728</u>	<u>34,632,468</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>		
Interest income	7,549,495	6,097,077
Interest expense, net of amortization of bond premiums of \$1,741,887 in 2019 and \$1,865,197 in 2018	(9,661,066)	(9,836,724)
Loss from disposal of capital assets	(540,882)	(298,169)
Net increase (decrease) in the fair value of investments	10,866,747	(6,323,489)
Other	<u>383,673</u>	<u>451,948</u>
Total nonoperating revenues (expenses)	<u>8,597,967</u>	<u>(9,909,357)</u>
<b>CONTRIBUTIONS IN AID OF CONSTRUCTION</b>	<u>12,976,364</u>	<u>21,509,465</u>
Change in net position	46,237,059	46,232,576
<b>NET POSITION</b>		
Beginning of year	<u>1,147,275,257</u>	<u>1,101,042,681</u>
End of year	\$ <u>1,193,512,316</u>	\$ <u>1,147,275,257</u>

See accompanying notes to financial statements.

**Board of Water Supply  
City and County of Honolulu  
STATEMENTS OF CASH FLOWS  
Fiscal Years Ended June 30, 2019 and 2018**

	<b>2019</b>	<b>2018</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers	\$ 227,366,672	\$ 232,624,848
Payments to suppliers for goods and services	(94,721,939)	(84,142,970)
Payments to employees for services	(58,325,919)	(56,488,853)
Net cash provided by operating activities	74,318,814	91,993,025
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Acquisition and construction of capital assets	(73,725,603)	(47,590,231)
Customer payments for capital projects	6,350,292	8,915,036
Principal paid on bonds	(8,550,000)	(8,365,000)
Interest paid on bonds	(9,175,023)	(9,358,160)
Proceeds from notes payable	18,048,072	8,564,034
Interest paid on notes payable	(789,555)	(864,688)
Principal paid on notes payable	(3,195,391)	(12,474,813)
Net cash used in capital and related financing activities	(71,037,208)	(61,173,822)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchase of investments	(145,871,012)	(172,354,414)
Proceeds from maturity of investments	150,050,772	112,246,870
Interest on investments	7,513,375	5,414,572
Net cash provided by (used in) investing activities	11,693,135	(54,692,972)
Net increase (decrease) in cash and cash equivalents	14,974,741	(23,873,769)
<b>CASH AND CASH EQUIVALENTS</b>		
Beginning of year	26,200,152	50,073,921
End of year	\$ 41,174,893	\$ 26,200,152
Reconciliation of cash and cash equivalents to the statement of net position		
Unrestricted	\$ 16,736,721	\$ 7,343,537
Restricted	24,438,172	18,856,615
	\$ 41,174,893	\$ 26,200,152

See accompanying notes to financial statements.

**Board of Water Supply  
City and County of Honolulu  
STATEMENTS OF CASH FLOWS (Continued)  
Fiscal Years Ended June 30, 2019 and 2018**

	<b>2019</b>	<b>2018</b>
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES</b>		
Operating income	\$ 24,662,728	\$ 34,632,468
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	48,781,234	48,924,008
Provision for doubtful accounts	990,929	847,834
Change in assets, deferred outflows of resources, liabilities, and deferred inflows of resources:		
Customer receivables	(1,477,386)	(371,416)
Other receivables	412,096	361,148
Materials and supplies	(8,579,922)	(1,529,490)
Prepaid expenses and other	15,392	(267,471)
Deferred outflows of resources related to pensions	4,158,721	12,452,972
Deferred outflows of resources related to OPEB	(863,033)	2,869,389
Accounts and contracts payable	1,845,196	842,586
Accrued vacation	(242,144)	39,781
Accrued workers' compensation	299,656	1,282,031
Other liabilities	(1,802,901)	197,746
Net pension liability	6,998,047	(2,992,622)
Net OPEB liability	(1,594,240)	(5,729,260)
Deferred inflows of resources related to pensions	(925,353)	(884,535)
Deferred inflows of resources related to OPEB	1,639,794	1,317,856
Net cash provided by operating activities	\$ 74,318,814	\$ 91,993,025
<b>SUPPLEMENTAL DISCLOSURE OF NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Contributions of capital assets from government agencies, developers and customers that are recorded as contributions in aid of construction	\$ 7,434,353	\$ 10,977,138
Amortization of other costs	\$ 47	\$ 28,819
Amortization of bond premium, net	\$ 1,741,887	\$ 1,865,197
Amortization of deferred loss on refunding	\$ 1,513,205	\$ 1,513,204
Forgiveness of principal due on notes payable	\$ --	\$ 1,662,400

See accompanying notes to financial statements.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO FINANCIAL STATEMENTS  
June 30, 2019 and 2018**

**NOTE A - OPERATIONS**

The Revised Charter of the City and County of Honolulu provides for the operation of the Board of Water Supply (the "BWS") as a semi-autonomous body of the City and County of Honolulu government (the "City"). 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.

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

- (1) **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.
- (2) **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.
- (3) **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.
- (4) **Cash and Cash Equivalents** - 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.
- (5) **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, 2019 and 2018**

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

- (6) **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.
- (7) **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.
- (8) **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 provides 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.
- (9) **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.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO FINANCIAL STATEMENTS  
June 30, 2019 and 2018**

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

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.

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).

- (10) ***Bond Issue Prepaid Insurance Costs, Original Issue Discount or Premium 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 statements of net position.

Original issue discounts or premiums are amortized using the straight-line method over the terms of the respective issues. Original issue discounts or premiums are offset against or added to bonds payable in the statements 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 statements of net position.

- (11) ***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 ninety 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, 2019 and 2018, accumulated sick leave aggregated approximately \$18,852,000 and \$19,133,000, respectively. 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, 2019 and 2018**

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

- (12) **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 position. 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.
- (13) **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.
- (14) **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.
- (15) **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.
- (16) **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.
- (17) **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



**Board of Water Supply  
City and County of Honolulu  
NOTES TO FINANCIAL STATEMENTS  
June 30, 2019 and 2018**

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

contributions are recognized in the period in which the contributions are legally due and benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

- (18) **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 EUTF's fiduciary net position have been determined on the same basis as they are reported by EUTF. For this purpose, 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.
- (19) **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 or perform the investment function for the Plan.

- (20) **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:

Policy	Limits (Millions)	Deductibles
Property	\$ 60	\$ 50,000
Public entity liability	\$ 15	\$ 750,000
Excess workers’ compensation	\$ 25	\$ 600,000
Employment practices	\$ 5	\$ 75,000
Storage tank liability	\$ 2	\$ 10,000
Pollution legal liability	\$ 5	\$ 250,000
Crime	\$ 5	\$ 25,000
Cyber liability	\$ 3	\$ 50,000

There have been no significant reductions in insurance coverage’s from the prior fiscal year.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO FINANCIAL STATEMENTS  
June 30, 2019 and 2018**

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

- (21) ***New Accounting Pronouncements*** - The Government Accounting Standards Board (the "GASB") issued Statement No. 83, *Certain Asset Retirement Obligations*. This Statement addresses accounting and financial reporting for certain asset retirement obligations ("AROs"). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. Management has determined that this Statement does not have a material impact on the BWS's financial statements.

The GASB issued Statement No. 84, *Fiduciary Activities*. This Statement establishes specific criteria for identifying activities that should be reported as fiduciary activities and clarifies whether and how business-type activities should report their fiduciary activities. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018. Management has determined that this Statement does not have a material impact on the BWS's financial statements.

The GASB issued Statement No. 87, *Leases*. This Statement requires the recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. Management has not yet determined the effect this Statement will have on the BWS's financial statements.

The GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. This Statement defines debt for purposes of disclosure in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings (for example, a government entering into a loan agreement with a lender) and direct placements (for example, a government issuing a debt security directly to an investor). Direct borrowings and direct placements have terms negotiated directly with the investor or lender and are not offered for public sale. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. Management has adopted the applicable requirements of this new standard as presented in the BWS's financial statements.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO FINANCIAL STATEMENTS  
June 30, 2019 and 2018**

**NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

The GASB issued Statement No. 90, *Majority Equity Interests - an amendment of GASB Statements No. 14 and No. 61*. The primary objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018. Management has not yet determined the effect this Statement will have on the BWS's financial statements.

The GASB issued Statement No. 91, *Conduit Debt Obligations*. The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. For accounting and financial reporting purposes, a conduit debt obligation is a debt instrument issued in the name of a state or local government (the issuer) that is for the benefit of a third party primarily liable for the repayment of the debt instrument (the third-party obligor). The requirements of this Statement are effective for reporting periods beginning after December 15, 2020. Management has not yet determined the effect this Statement will have on the BWS's financial statements.

**NOTE C - 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. government 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.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO FINANCIAL STATEMENTS  
June 30, 2019 and 2018**

**NOTE C - CASH AND INVESTMENTS (Continued)**

**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, 2019 and 2018 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.

**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, 2019 and 2018, 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, 2019 and 2018 consisted of the following:

	2019		2018	
	Cost	Fair Value	Cost	Fair Value
U. S. Treasury obligations	\$ 334,445,076	\$ 337,750,640	\$ 339,521,895	\$ 333,157,965
U. S. government agencies	<u>77,625,959</u>	<u>78,309,374</u>	<u>77,524,930</u>	<u>76,215,062</u>
	<u>\$ 412,071,035</u>	<u>\$ 416,060,014</u>	<u>\$ 417,046,825</u>	<u>\$ 409,373,027</u>

**Board of Water Supply  
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June 30, 2019 and 2018**

**NOTE C - CASH AND INVESTMENTS (Continued)**

As of June 30, 2019 and 2018, the credit exposure as a percentage of total investments were as follows:

	2019		2018	
	Percent of Total	Fair Value	Percent of Total	Fair Value
U. S. Treasury obligations	81%	\$ 337,750,640	82%	\$ 333,157,965
U. S. government agencies				
Federal National				
Mortgage Association	9%	35,996,530	9%	36,832,412
Federal Home Loan				
Mortgage Corporation	2%	6,974,347	3%	14,113,035
Federal Home Loan Bank	8%	35,338,497	6%	25,269,615
	100%	\$ 416,060,014	100%	\$ 409,373,027

The fair value of investments by contractual maturity at June 30, 2019 and 2018 are shown below:

	Investment Maturities (In Years) at June 30, 2019		
	Fair Value	Less Than 1	1 - 5
U. S. Treasury obligations	\$ 337,750,640	\$ 98,880,356	\$ 238,870,284
U. S. government agencies	<u>78,309,374</u>	<u>23,131,037</u>	<u>55,178,337</u>
	\$ 416,060,014	\$ 122,011,393	\$ 294,048,621
	Investment Maturities (In Years) at June 30, 2018		
	Fair Value	Less Than 1	1 - 5
U. S. Treasury obligations	\$ 333,157,965	\$ 58,201,216	\$ 274,956,749
U. S. government agencies	<u>76,215,062</u>	<u>15,994,998</u>	<u>60,220,064</u>
	\$ 409,373,027	\$ 74,196,214	\$ 335,176,813

**NOTE D - RESTRICTED ASSETS**

At June 30, 2019 and 2018, the BWS's restricted assets were comprised of cash, cash equivalents and investments and were held for the following purposes:

	2019	2018
Construction, renewals and replacements	\$ 5,130,874	\$ 6,977,462
Debt service	<u>40,456,304</u>	<u>35,208,658</u>
	\$ 45,587,178	\$ 42,186,120

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**NOTE E - 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 has the ability to 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, 2019 and 2018:

	Assets at Fair Value at June 30, 2019			
	Total	Level 1	Level 2	Level 3
U. S. Treasury obligations	\$ 337,750,640	\$ 337,750,640	\$ --	\$ --
U. S. government agencies	78,309,374	--	78,309,374	--
	<u>\$ 416,060,014</u>	<u>\$ 337,750,640</u>	<u>\$ 78,309,374</u>	<u>\$ --</u>
	Assets at Fair Value at June 30, 2018			
	Total	Level 1	Level 2	Level 3
U. S. Treasury obligations	\$ 333,157,965	\$ 333,157,965	\$ --	\$ --
U. S. government agencies	76,215,062	--	76,215,062	--
	<u>\$ 409,373,027</u>	<u>\$ 333,157,965</u>	<u>\$ 76,215,062</u>	<u>\$ --</u>

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**NOTE F - CAPITAL ASSETS**

Capital assets activity during the fiscal years ended June 30, 2019 and 2018, were as follows:

	Balance July 1, 2018	Additions	Transfers	Retirements	Balance June 30, 2019
Depreciable assets					
Infrastructure	\$ 1,527,922,394	\$ 7,492,403	\$ 22,554,570	\$ (1,459,024)	\$ 1,556,510,343
Building and improvements	176,188,768	--	10,463,776	(392,645)	186,259,899
Equipment and machinery	320,775,882	3,975,782	6,453,500	(2,771,647)	328,433,517
Total depreciable assets	<u>2,024,887,044</u>	<u>11,468,185</u>	<u>39,471,846</u>	<u>(4,623,316)</u>	<u>2,071,203,759</u>
Less accumulated depreciation	<u>(1,029,116,807)</u>	<u>(48,781,234)</u>	<u>--</u>	<u>4,006,751</u>	<u>(1,073,891,290)</u>
Total depreciable assets - net	995,770,237	(37,313,049)	39,471,846	(616,565)	997,312,469
Land	32,373,064	--	--	--	32,373,064
Construction work in progress	121,885,982	85,196,667	(47,861,702)	--	159,220,947
Net capital assets	<u>\$ 1,150,029,283</u>	<u>\$ 47,883,618</u>	<u>\$ (8,389,856)</u>	<u>\$ (616,565)</u>	<u>\$ 1,188,906,480</u>
	Balance July 1, 2017	Additions	Transfers	Retirements	Balance June 30, 2018
Depreciable assets					
Infrastructure	\$ 1,504,279,618	\$ 11,083,749	\$ 14,529,249	\$ (1,970,222)	\$ 1,527,922,394
Building and improvements	169,870,257	--	6,344,030	(25,519)	176,188,768
Equipment and machinery	317,240,982	3,613,780	1,790,043	(1,868,923)	320,775,882
Total depreciable assets	<u>1,991,390,857</u>	<u>14,697,529</u>	<u>22,663,322</u>	<u>(3,864,664)</u>	<u>2,024,887,044</u>
Less accumulated depreciation	<u>(983,717,510)</u>	<u>(48,924,008)</u>	<u>--</u>	<u>3,524,711</u>	<u>(1,029,116,807)</u>
Total depreciable assets - net	1,007,673,347	(34,226,479)	22,663,322	(339,953)	995,770,237
Land	32,373,064	--	--	--	32,373,064
Construction work in progress	98,956,663	56,895,383	(33,966,064)	--	121,885,982
Net capital assets	<u>\$ 1,139,003,074</u>	<u>\$ 22,668,904</u>	<u>\$ (11,302,742)</u>	<u>\$ (339,953)</u>	<u>\$ 1,150,029,283</u>

Depreciation charges allocated to various functions for the fiscal years ended June 30, 2019 and 2018 totaled \$1,515,219 and \$1,587,002, respectively.

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**NOTE G - BONDS PAYABLE**

At June 30, 2019 and 2018, bonds payable consisted of the following:

	2019	2018
Water System Revenue Bonds, Series 2012A, annual principal due ranging from \$2,000,000 to \$8,535,000 through July 1, 2033, with interest ranging from 2.00% to 5.00%.	\$ 74,870,000	\$ 78,830,000
Water System Revenue Bonds, Series 2014A, annual principal due commencing from July 1, 2023, ranging from \$410,000 to \$9,205,000 through July 1, 2036, with interest ranging from 3.00% to 5.00%.	101,655,000	101,655,000
Water System Revenue Bonds, Series 2014B, annual principal due ranging from \$1,540,000 to \$4,790,000 through July 1, 2031, with interest ranging from 2.14% to 3.86%	29,765,000	34,355,000
	206,290,000	214,840,000
Add: unamortized premium	16,310,455	18,052,342
	222,600,455	232,892,342
Less: current portion	8,820,000	8,550,000
Noncurrent portion	\$ <u>213,780,455</u>	\$ <u>224,342,342</u>

The BWS had pledged future water revenues, net of specified operating and maintenance expenses, for the security and payment of the water system revenue bonds outstanding. Proceeds from the bonds refunded the principal amounts of previously issued water system revenue bonds that were used to finance the construction of various components of the water system. As of June 30, 2019 and 2018, the total principal and interest remaining to be paid on the bonds totaled \$290,112,000 and \$307,837,000, respectively. Principal and interest paid for the current year and water revenues, net of specified operating and maintenance expenses, were \$17,725,023 and \$81,377,130, respectively

The BWS' 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, 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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**NOTE G - BONDS PAYABLE (Continued)**

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.

Debt service requirements on bonds payable at June 30, 2019 are as follows:

<u>Fiscal Year Ending June 30.</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2020	\$ 8,820,000	\$ 8,902,000	\$ 17,722,000
2021	9,110,000	8,613,000	17,723,000
2022	9,450,000	8,273,000	17,723,000
2023	10,075,000	7,833,000	17,908,000
2024	10,775,000	7,345,000	18,120,000
2025 - 2029	62,060,000	28,443,000	90,503,000
2030 - 2034	69,540,000	12,797,000	82,337,000
2035 - 2037	<u>26,460,000</u>	<u>1,616,000</u>	<u>28,076,000</u>
Total	\$ <u>206,290,000</u>	\$ <u>83,822,000</u>	\$ <u>290,112,000</u>

**NOTE H - NOTES PAYABLE**

At June 30, 2019 and 2018, notes payable from direct borrowings consisted of the following:

	<u>2019</u>	<u>2018</u>
Notes payable to Department of Health:		
Note payable in semi-annual installments of approximately \$150,500, including interest and loan fees at 1.50% per annum, due May 2034.	\$ 3,767,710	\$ 4,008,972
Note payable in semi-annual installments of approximately \$149,600, including interest and loan fees at 1.50% per annum, due May 2034.	3,742,675	3,982,357
Note payable in semi-annual installments of approximately \$142,900, including interest and loan fees at 1.50% per annum, due November 2034.	<u>3,794,503</u>	<u>3,904,788</u>
Balance brought forward	\$ <u>11,304,888</u>	\$ <u>11,896,117</u>

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**NOTE H - NOTES PAYABLE (Continued)**

	<u>2019</u>	<u>2018</u>
Balance carried forward	\$ 11,304,888	\$ 11,896,117
Non-interest bearing note payable in semi-annual installments of approximately \$207,300, including loan fees at 1.00% per annum, due November 2034.	5,517,437	5,873,400
Non-interest bearing note payable in semi-annual installments of approximately \$785,300, including loan fees at 1.00% per annum, due April 2034.	20,308,392	21,662,285
Non-interest bearing note payable in semi-annual installments of approximately \$244,000, including loan fees at 1.00% per annum, due December 2037.	8,465,913	8,626,265
Non-interest bearing note payable in semi-annual installments of approximately \$381,400, including loan fees at 1.00% per annum, due February 2039.	23,157,941	13,485,210
Note payable in semi-annual installments of approximately \$148,300, including interest and loan fees at 1.50% per annum, due October 2036.	4,547,788	4,773,716
Note payable in semi-annual installments of approximately \$231,800, including interest and loan fees at 1.25% per annum, due October 2038.	8,000,000	--
Notes payable to other lenders:		
Note payable in monthly installments of approximately \$15,700, including interest at 5.0%, due September 2025.	<u>985,044</u>	<u>1,117,729</u>
	82,287,403	67,434,722
Less current maturities	<u>4,124,240</u>	<u>3,179,667</u>
	\$ <u>78,163,163</u>	\$ <u>64,255,055</u>

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**NOTE H - NOTES PAYABLE (Continued)**

The notes payable to the Department of Health are state revolving fund loans and are collateralized by net revenue of the BWS. The BWS' 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' 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, 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.

Debt service requirements on notes payable from direct borrowings at June 30, 2019 are as follows:

Fiscal Year Ending June 30,	Principal	Interest	Loan Fee	Total
2020	\$ 4,124,000	\$ 144,000	\$ 804,000	\$ 5,072,000
2021	4,691,000	134,000	762,000	5,587,000
2022	4,725,000	121,000	716,000	5,562,000
2023	4,760,000	108,000	671,000	5,539,000
2024	4,795,000	94,000	625,000	5,514,000
2025-2029	23,768,000	298,000	2,422,000	26,488,000
2030-2034	24,284,000	133,000	1,228,000	25,645,000
2035-2039	11,140,000	18,000	274,000	11,432,000
	<u>\$ 82,287,000</u>	<u>\$ 1,050,000</u>	<u>\$ 7,502,000</u>	<u>\$ 90,839,000</u>

**NOTE I - LONG-TERM LIABILITIES**

Changes in long-term liabilities for the fiscal years ended June 30, 2019 and 2018 are as follows:

	Balance			Balance	
	July 1, 2018	Additions	Reductions	June 30, 2019	Current Portion
Bonds payable	\$ 214,840,000	\$ --	\$ (8,550,000)	\$ 206,290,000	\$ 8,820,000
Add: unamortized premium	<u>18,052,342</u>	<u>--</u>	<u>(1,741,887)</u>	<u>16,310,455</u>	<u>--</u>
Total bonds payable	232,892,342	--	(10,291,887)	222,600,455	8,820,000
Notes payable	67,434,722	18,048,072	(3,195,391)	82,287,403	4,124,240
Accrued vacation	7,016,280	2,699,440	(2,941,584)	6,774,136	2,941,584
Accrued workers' compensation	3,549,186	1,381,107	(1,081,451)	3,848,842	1,068,132
Customer advances	1,606,003	6,441,377	(5,633,096)	2,414,284	--
Other	<u>3,704,937</u>	<u>1,404,304</u>	<u>(2,371,628)</u>	<u>2,737,613</u>	<u>--</u>
	<u>\$ 316,203,470</u>	<u>\$ 29,974,300</u>	<u>\$ (25,515,037)</u>	<u>\$ 320,662,733</u>	<u>\$ 16,953,956</u>

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**NOTE I - LONG-TERM LIABILITIES (Continued)**

	Balance July 1, 2017	Additions	Reductions	Balance June 30, 2018	Current Portion
Bonds payable	\$ 223,205,000	\$ --	\$ (8,365,000)	\$ 214,840,000	\$ 8,550,000
Add: unamortized premium	<u>19,917,539</u>	<u>--</u>	<u>(1,865,197)</u>	<u>18,052,342</u>	<u>--</u>
Total bonds payable	243,122,539	--	(10,230,197)	232,892,342	8,550,000
Notes payable	73,007,901	8,564,034	(14,137,213)	67,434,722	3,179,667
Accrued vacation	6,976,499	2,890,782	(2,851,001)	7,016,280	2,851,001
Accrued workers' compensation	2,267,155	2,441,751	(1,159,720)	3,549,186	1,033,217
Customer advances	1,529,622	8,915,036	(8,838,655)	1,606,003	--
Other	<u>3,574,344</u>	<u>1,383,598</u>	<u>(1,253,005)</u>	<u>3,704,937</u>	<u>--</u>
	<u>\$ 330,478,060</u>	<u>\$ 24,195,201</u>	<u>\$ (38,469,791)</u>	<u>\$ 316,203,470</u>	<u>\$ 15,613,885</u>

**NOTE J - NET POSITION**

The BWS's net position consisted of the following as of June 30, 2019 and 2018:

	<u>2019</u>	<u>2018</u>
Net investment in capital assets		
Capital assets, net	\$ 1,188,906,480	\$ 1,150,029,283
Deferred loss on refunding	15,572,789	17,085,994
Less: noncurrent portion of water system revenue bonds payable	(213,780,455)	(224,342,342)
Less: noncurrent portion of notes payable	(78,163,163)	(64,255,055)
Unspent debt proceeds	<u>2,203,682</u>	<u>4,291,362</u>
	<u>914,739,333</u>	<u>882,809,242</u>
Restricted for capital activity and debt service		
Restricted cash and cash equivalents	24,438,172	18,856,615
Restricted investments	21,149,006	23,329,505
Less: unspent debt proceeds	(2,203,682)	(4,291,362)
Less: contracts payable, including retainages	(3,585,739)	(3,267,464)
Less: accrued interest payable	(4,706,312)	(4,781,189)
Less: bonds payable, current portion	(8,820,000)	(8,550,000)
Less: notes payable, current portion	<u>(4,124,240)</u>	<u>(3,179,667)</u>
	<u>22,147,205</u>	<u>18,116,438</u>
Unrestricted	<u>256,625,778</u>	<u>246,349,577</u>
	<u>\$ 1,193,512,316</u>	<u>\$ 1,147,275,257</u>

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**NOTE K - LEASES**

The BWS leases space for its deep seawater cooling project on Oahu under an operating lease that extends through September 2025. The lease is subject to early cancellation contingent on mutual agreement between the BWS and the lessor. Rent expense under this lease totaled \$159,000 for the fiscal years ended June 30, 2019 and 2018.

The BWS also leases certain properties to other users, primarily utility and telecommunications companies, under multi-year license agreements. The terms of these agreements range from 5 to 30 years through December 2031. The agreements are generally based on fixed annual amounts, with provisions for increases.

The future minimum rental payments and revenue from these operating leases at June 30, 2019 were as follows:

Fiscal Year Ending June 30,	Future Minimum Rental Payments	Future Minimum Rental Revenue
2020	\$ (159,000)	\$ 122,000
2021	(159,000)	122,000
2022	(159,000)	113,000
2023	(159,000)	104,000
2024	(159,000)	100,000
2025-2029	(192,000)	500,000
2030-2034	--	200,000
	<u>\$ (987,000)</u>	<u>\$ 1,261,000</u>

**NOTE L - RELATED PARTY TRANSACTIONS**

The BWS has an agreement with the Department of Environmental Services, City and County of Honolulu to provide certain services relating to the billing and collection of sewer service charges. For the fiscal years ended June 30, 2019 and 2018 fees related to these services totaled \$2,559,109 and \$3,106,817, respectively.

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 it represents a reasonable charge for services necessary for the BWS to perform its duties. CASE fees totaled \$3,300,000 for the fiscal years ended June 30, 2019 and 2018.

As of June 30, 2019 and 2018, amounts due from the City for water charges totaled \$2,059,213 and \$1,845,926, respectively, and are included in customer receivables in the statements of net position.

The BWS has entered into agreements with the City for joint capital projects. Unexpended advanced funds totaled \$826,000 as of June 30, 2019 and 2018 and are included in other liabilities in the statements of net position.

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**NOTE M - EMPLOYEE BENEFIT PLANS**

**Pension Plan**

*Plan description.* The 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 established by Chapter 88 of the Hawaii Revised Statutes and can be amended through legislation.

The ERS provides retirement, disability and death benefits that are covered by the provisions of the noncontributory, contributory and hybrid retirement membership classes. The three classes provide a monthly retirement allowance equal to the benefit multiplier (generally 1.25% or 2%) multiplied by the average final compensation multiplied by years of credited service. Average final compensation is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation for employees 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 employees hired prior to January 1, 1971.

For members hired before July 1, 2012, the original retirement allowance is increased by 2.5% each July 1 following the calendar year of retirement. This cumulative benefit is not compounded and increases each year by 2.5% of the original retirement allowance without a ceiling (2.5% of the original retirement allowance the first year, 5.0% the second year, 7.5% the third year, etc.). For members hired after June 30, 2012, the post-retirement annuity increase was decreased to 1.5% per year.

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 10 years of credited service are eligible to retire at age 62. Employees with 30 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 is 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 dependent children, no benefit is payable.

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

Ten years of credited service is required for ordinary death benefits. For ordinary death benefits, the surviving spouse/reciprocal beneficiary (until remarriage/re-entry into a new reciprocal beneficiary relationship) and dependent children (up to age 18) receive a benefit equal to a percentage of 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.

Contributory Class for Employees 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 is 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 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 children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or dependent children/parents, the 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 12 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 10 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 Employees 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 10 years of credited service are eligible to retire at age 60.
- *Disability and Death Benefits* - Disability and benefits for contributory class members hired after June 30, 2012 are generally the same as those for contributory class members hired June 30, 2012 and prior.

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

Hybrid Class for Employees 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 30 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 is 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 children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or dependent children/parents, the 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 10 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 Employees 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 10 years of credited service are eligible to retire at age 65. Employees with 30 years of credited service are eligible to retire at age 60.
- *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 10 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 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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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

*Contributions.* The employer contribution rate is a fixed percentage of compensation. The employer contribution rate for general employees was 19% and 18% for the fiscal years ended June 30, 2019 and 2018, respectively. For the fiscal years ended June 30, 2019 and 2018, contributions to the pension plan from the BWS totaled \$7,937,402 and \$7,561,614, respectively.

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, 2019 and 2018, the BWS reported a liability of \$120,348,341 and \$113,350,294, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2018 and 2017, respectively, 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, 2018 and 2017, the BWS's proportion was 0.90% and 0.88%, respectively, which was an increase of 0.02% and 0.005% from its proportion measured as of June 30, 2017 and 2016, respectively.

For the fiscal years ended June 30, 2019 and 2018, the BWS recognized pension expense of \$17,626,234 and \$16,917,657, respectively. At June 30, 2019 and 2018, the BWS reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 2,170,789	\$ 754,112
Changes of assumptions	12,975,494	--
Net difference between projected and actual earnings on pension plan investments	--	621,753
Changes in proportion and differences between employer contributions and proportionate share of contributions	5,238,978	2,074,401
Employer contributions subsequent to the measurement date	7,387,857	--
	\$ 27,773,118	\$ 3,450,266

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 1,816,533	\$ 1,214,716
Changes of assumptions	17,308,162	--
Net difference between projected and actual earnings on pension plan investments	--	335,614
Changes in proportion and differences between employer contributions and proportionate share of contributions	5,245,530	2,825,289
Employer contributions subsequent to the measurement date	7,561,614	--
	\$ 31,931,839	\$ 4,375,619

At June 30, 2019, the BWS reported \$7,387,857 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 fiscal year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources at June 30, 2019 will be recognized in pension expense as follows:

Fiscal Year Ended June 30:	Net Deferred Outflows (Inflows)
2020	\$ 8,302,288
2021	5,579,215
2022	2,121,881
2023	630,802
2024	300,809
	\$ 16,934,995

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

*Actuarial assumptions.* The total pension liability in the June 30, 2018 and 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2018	2017
Inflation	2.50%	2.50%
Investment rate of return, including inflation	7.00%	7.00%
Salary increases, including inflation		
Police and fire employees	5.00% to 7.00%	5.00% to 7.00%
General employees	3.50% to 6.50%	3.50% to 6.50%
Teachers	3.75% to 5.75%	3.75% to 5.75%

Mortality rates used in the actuarial valuation as of June 30, 2018 and 2017 were based on the following:

Active members - Multiples of the RP 2014 mortality table for active employees based on the occupation of the member.

Healthy retirees - The 2016 Public Retirees of Hawaii mortality table, generational projection using the BB projection table from the year 2016 and with multipliers based on plan and group experience.

Disabled retirees - Base table for healthy retirees' occupation, set forward five years, generational projection using the BB projection table from the year 2016. 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, 2018 and 2017 were based on the results of an actuarial experience study for the five-year period ended June 30, 2015.

The long-term expected rate of return on pension plan investments, based on ERS' investment consultant, was determined using a building-block method 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 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 geometric real rates of return for each major asset class as of June 30, 2018 and 2017 are summarized in the following tables:

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

Strategic Allocation (Risk-Based Classes)	Target Allocation	June 30, 2018	
		Long-Term Expected Rate of Return	Long-Term Expected Real Rate of Return *
Broad growth	63.00%	7.10%	4.85%
Principal protection	7.00%	2.50%	0.25%
Real return	10.00%	4.10%	1.85%
Crisis risk offset	20.00%	4.60%	2.35%
	100.00%		

\* Uses an expected inflation of 2.25%

Strategic Allocation (Risk-Based Classes)	Target Allocation	June 30, 2017	
		Long-Term Expected Rate of Return	Long-Term Expected Real Rate of Return *
Broad growth	63.00%	8.05%	5.80%
Principal protection	7.00%	2.45%	0.20%
Real return	10.00%	5.80%	3.55%
Crisis risk offset	20.00%	5.35%	3.10%
	100.00%		

\* Uses an expected inflation of 2.25%

*Discount rate.* The discount rate used to measure the total pension liability at June 30, 2019 and 2018 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.

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

*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 fiscal years ended June 30, 2019 and 2018 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 1-percentage point lower or 1-percentage point higher than the current rate:

	June 30, 2019		
	Current		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Proportionate share of the net pension liability	\$ <u>156,493,555</u>	\$ <u>120,348,341</u>	\$ <u>90,552,169</u>
	June 30, 2018		
	Current		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Proportionate share of the net pension liability	\$ <u>146,890,615</u>	\$ <u>113,350,294</u>	\$ <u>85,694,584</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 [ers.ehawaii.gov](http://ers.ehawaii.gov).

***Payable to the Pension Plan***

At June 30, 2019 and 2018, the amount payable to the ERS totaled \$714,455 and \$1,484,267, respectively, which consists of statutorily required employer contributions for the month of June 2019 and 2018, respectively, and excess pension costs required by the HRS for fiscal year 2019 and 2018, respectively.

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

***General Information about the OPEB Plan***

*Plan description.* Chapter 87A of the Hawaii Revised Statutes ("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>.

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

*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 benefits terms as of July 1, 2018 and 2017:

	2019	2018
Inactive employees or beneficiaries currently receiving benefits	592	580
Inactive employees entitled but not yet receiving benefits	52	53
Active employees	568	570
	1,212	1,203

*Contributions.* The BWS’s contribution levels are established by Chapter 87A of the HRS. For the fiscal years ended June 30, 2019 and 2018, the BWS was required to contribute a minimum amount equal to at least 100% and 80%, respectively, 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 fiscal years ended June 30, 2019 and 2018, contributions to the OPEB plan from the BWS totaled \$7,945,000 and \$8,855,338, respectively, which resulted in an average contribution rate of approximately 20.0% and 23.3%, respectively, of covered-employee payroll.

For employees hired before July 1, 1996, the BWS pays the entire base monthly contribution for employees retiring with 10 or more years of credited service, and 50% of the base monthly contribution for employees retiring with fewer than 10 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 10 years of service, the BWS makes no contributions. For those retiring with at least 10 years of service but fewer than 15 years of service, the BWS pays 50% of the base monthly contribution. For employees retiring with at least 15 years of service but fewer than 25 years of service, the BWS pays 75% of the base monthly contribution. For 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 less than 10 years of service, the BWS makes no contributions. For those retiring with at least 10 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. The BWS's contribution is based on the single plan base monthly contribution. Retirees can elect family coverage but must pay the difference.

***Net OPEB Liability***

The BWS's net OPEB liability as of June 30, 2019 and 2018 was measured as of July 1, 2018 and 2017, respectively, 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, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.50%
Salary increases	3.50% to 7.00%, including inflation
Investment rate of return	7.00%
Healthcare cost trend rates	
PPO	Initial rate of 10.00% declining to a rate of 4.86% after 13 years
HMO	Initial rate of 10.00%; declining to a rate of 4.86% after 13 years
Part B & base monthly contribution	Initial rates of 4.00% and 5.00%, declining to a rate of 4.70% after 12 years
Dental	Initial rates of 5.00% for first three years, followed by 4.00%
Vision	Initial rates of 0.00% for first three years, followed by 2.50%
Life insurance	0.00%

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

The total OPEB liability in the July 1, 2017 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	3.50% to 7.00%, including inflation
Investment rate of return	7.00%
Healthcare cost trend rates	
PPO	Initial rates of 6.60%, 6.60% and 9.00%; declining to a rate of 4.86% after 14 years
HMO	Initial rate of 9.00%; declining to a rate of 4.86% after 14 years
Part B & base monthly contribution	Initial rates of 2.00% and 5.00%, declining to a rate of 4.70% after 14 years
Dental	3.50%
Vision	2.50%
Life insurance	0.00%

Mortality rates used in the actuarial valuation as of July 1, 2018 and 2017 were based on the following:

Active members - Multiples of the RP 2014 mortality table for employees with generational projection using the BB projection table from the year 2014 based on the occupation of the member.

Healthy retirees - The 2016 Public Retirees of Hawaii mortality table, generational projection using the BB projection table from the year 2016 and with multipliers based on plan and group experience.

Disabled retirees - Base table for healthy retirees' occupation, set forward five years, generational projection using the BB projection table from the year 2016. Minimum mortality rate of 3.50% for males and 2.50% for females.

The actuarial assumptions used in the actuarial valuation as of July 1, 2018 and 2017 were based on the results of an actuarial experience study for the five-year period ended June 30, 2015 as conducted for the ERS.



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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

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, 2018 and 2017 are summarized in the following table:

Asset Class	2019		2018	
	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
International equity	17.00%	6.50%	19.00%	7.00%
U.S. equity	15.00%	5.05%	19.00%	5.50%
Private equity	10.00%	8.65%	10.00%	9.25%
Core real estate	10.00%	4.10%	10.00%	3.80%
Trend following	9.00%	3.00%	7.00%	1.75%
U.S. microcap	7.00%	7.00%	7.00%	7.00%
Global options	7.00%	4.50%	7.00%	5.50%
Private credit	6.00%	5.25%	0.00%	0.00%
Long treasuries	6.00%	1.90%	7.00%	1.90%
Alternate risk premium	5.00%	2.45%	0.00%	0.00%
TIPS	5.00%	0.75%	5.00%	0.50%
Core bonds	3.00%	1.30%	3.00%	0.55%
REITs	0.00%	0.00%	6.00%	5.85%
	100.00%		100.00%	

*Discount rate.* The discount rate used to measure the total OPEB liability at June 30, 2019 and 2018 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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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

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

The following schedules present the changes in the net OPEB liability for the fiscal years ending June 30, 2019 and 2018:

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
<b>Balance at June 30, 2018</b>	\$ <u>146,389,649</u>	\$ <u>71,667,726</u>	\$ <u>74,721,923</u>
<b>Changes for the fiscal year:</b>			
Service cost	2,480,098	--	2,480,098
Interest on the total OPEB liability	10,129,142	--	10,129,142
Difference between expected and actual experience	(2,312,485)	--	(2,312,485)
Changes of assumptions	2,183,447	--	2,183,447
Contributions - employer	--	8,855,338	(8,855,338)
Net investment income	--	5,235,037	(5,235,037)
Benefit payments	(5,855,338)	(5,855,338)	--
Administrative expense	--	(15,933)	15,933
Other	--	--	--
<b>Net changes</b>	<u>6,624,864</u>	<u>8,219,104</u>	<u>(1,594,240)</u>
<b>Balance at June 30, 2019</b>	\$ <u>153,014,513</u>	\$ <u>79,886,830</u>	\$ <u>73,127,683</u>
	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
<b>Balance at June 30, 2017</b>	\$ <u>140,024,777</u>	\$ <u>59,573,594</u>	\$ <u>80,451,183</u>
<b>Changes for the fiscal year:</b>			
Service cost	2,404,087	--	2,404,087
Interest on the total OPEB liability	9,685,512	--	9,685,512
Contributions - employer	--	11,724,727	(11,724,727)
Net investment income	--	6,029,726	(6,029,726)
Benefit payments	(5,724,727)	(5,724,727)	--
Administrative expense	--	(13,794)	13,794
Other	--	78,200	(78,200)
<b>Net changes</b>	<u>6,364,872</u>	<u>12,094,132</u>	<u>(5,729,260)</u>
<b>Balance at June 30, 2018</b>	\$ <u>146,389,649</u>	\$ <u>71,667,726</u>	\$ <u>74,721,923</u>

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

*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 1-percentage point lower or 1-percentage point higher than the current discount rate:

	June 30, 2019		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability	\$ <u>96,267,884</u>	\$ <u>73,127,683</u>	\$ <u>54,940,141</u>
	June 30, 2018		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability	\$ <u>96,608,229</u>	\$ <u>74,721,923</u>	\$ <u>56,878,627</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 1-percentage point lower or 1-percentage point higher than the current healthcare cost trend rates:

	June 30, 2019		
	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
Net OPEB Liability	\$ <u>54,329,692</u>	\$ <u>73,127,683</u>	\$ <u>97,393,040</u>
	June 30, 2018		
	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
Net OPEB Liability	\$ <u>56,208,713</u>	\$ <u>74,721,923</u>	\$ <u>97,787,751</u>

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

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

For the fiscal years ended June 30, 2019 and 2018, the BWS recognized OPEB expense of \$7,127,521 and \$7,313,323, respectively. At June 30, 2019 and 2018, the BWS reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ --	\$ 1,878,175
Changes of assumptions	1,773,371	--
Net difference between projected and actual earnings on pension plan investments	--	1,079,475
Employer contributions subsequent to the measurement date	7,945,000	--
	\$ 9,718,371	\$ 2,957,650
	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on OPEB plan investments	\$ --	\$ 1,317,856
Employer contributions subsequent to the measurement date	8,855,338	--
	\$ 8,855,338	\$ 1,317,856

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**NOTE M - EMPLOYEE BENEFIT PLANS (Continued)**

At June 30, 2019, the BWS reported \$7,945,000 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 fiscal year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at June 30, 2019 will be recognized in OPEB expense as follows:

<u>Fiscal Year Ended June 30:</u>	<u>Net Deferred Outflows (Inflows)</u>
2020	\$ (376,469)
2021	(376,469)
2022	(376,469)
2023	(47,004)
2024	(7,868)
	<u>\$ (1,184,279)</u>

**NOTE N - COMMITMENTS AND CONTINGENCIES**

**Contract Commitments**

Commitments, primarily for capital improvements, approximated \$260,328,698 and \$253,543,000 as of June 30, 2019 and 2018, respectively. 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.

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.

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**NOTE N - COMMITMENTS AND CONTINGENCIES (Continued)**

**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 material adverse effect on the BWS's financial position, results of operations, or liquidity.

**REQUIRED SUPPLEMENTARY INFORMATION**

**Board of Water Supply  
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SCHEDULE OF PROPORTIONATE SHARE  
OF THE NET PENSION LIABILITY  
Last Ten Fiscal Years \***

<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 %age of Covered Payroll</b>	<b>Plan Fiduciary Net Position as a %age of the Total Pension Liability</b>
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	0.78%	\$ 69,992,291	\$ 29,761,149	235%	57.96%

\* This schedule is intended to present information for ten years, as of the measurement date of the collective net pension liability for each respective fiscal year. Additional years will be built prospectively as information becomes available.

See accompanying notes to required supplementary information.



**Board of Water Supply  
City and County of Honolulu  
SCHEDULE OF CONTRIBUTIONS (PENSION)  
Last Ten Fiscal Years**

<b>Fiscal 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 %age of Covered Payroll</b>
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%
June 30, 2013	\$ 4,604,149	\$ 4,604,149	\$ --	\$ 29,761,149	15.5%
June 30, 2012	\$ 4,404,845	\$ 4,404,845	\$ --	\$ 29,353,916	15.0%
June 30, 2011	\$ 4,497,292	\$ 4,497,292	\$ --	\$ 29,981,949	15.0%
June 30, 2010	\$ 4,850,928	\$ 4,850,928	\$ --	\$ 32,339,522	15.0%

See accompanying notes to required supplementary information.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
REQUIRED BY GASB STATEMENT NO. 68  
Fiscal Years Ended June 30, 2019 and 2018**

**NOTE A - 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, 2016.

Amounts reported in the schedule of the proportionate share of the net pension liability as of the measurement period ended June 30, 2016 (fiscal year ended June 30, 2017) were significantly impacted by the following changes of actuarial assumptions:

- The investment return assumption decreased from 7.65% to 7.00%
- 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, 2016 (fiscal year ended June 30, 2017), 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 \***

	<b>2019</b>	<b>2018</b>
<b>Total OPEB liability</b>		
Service cost	\$ 2,480,098	\$ 2,404,087
Interest on the total OPEB liability	10,129,142	9,685,512
Difference between expected and actual experience	(2,312,485)	--
Changes of assumptions	2,183,447	--
Benefit payments	(5,855,338)	(5,724,727)
<b>Net change in total OPEB liability</b>	<b>6,624,864</b>	<b>6,364,872</b>
<b>Total OPEB liability - Beginning</b>	<b>146,389,649</b>	<b>140,024,777</b>
<b>Total OPEB liability - Ending</b>	<b>\$ 153,014,513</b>	<b>\$ 146,389,649</b>
<b>Plan fiduciary net position</b>		
Contributions - employer	\$ 8,855,338	\$ 11,724,727
Net investment income	5,235,037	6,029,726
Benefit payments	(5,855,338)	(5,724,727)
Administrative expense	(15,933)	(13,794)
Other	--	78,200
<b>Net change in plan fiduciary net position</b>	<b>8,219,104</b>	<b>12,094,132</b>
<b>Plan fiduciary net position - Beginning</b>	<b>71,667,726</b>	<b>59,573,594</b>
<b>Plan fiduciary net position - Ending</b>	<b>\$ 79,886,830</b>	<b>\$ 71,667,726</b>
<b>Net OPEB liability</b>	<b>\$ 73,127,683</b>	<b>\$ 74,721,923</b>
<b>Plan fiduciary net position as a percentage of the total OPEB liability</b>	<b>52.21%</b>	<b>48.96%</b>
<b>Covered-employee payroll</b>	<b>\$ 38,023,983</b>	<b>\$ 36,968,407</b>
<b>Net OPEB Liability as a Percentage of Covered-employee Payroll</b>	<b>192.32%</b>	<b>202.12%</b>

\* 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 notes to required supplementary information.

**Board of Water Supply  
City and County of Honolulu  
SCHEDULE OF CONTRIBUTIONS (OPEB)  
Last Ten Fiscal Years**

<b>Fiscal Year Ended</b>	<b>Actuarially Determined Contribution</b>	<b>Contributions in Relation to the Actuarially Determined Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered- Employee Payroll</b>	<b>Contributions as a %age of Covered- Employee Payroll</b>
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)	\$ 38,023,983	23.3%
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%
June 30, 2013	\$ 8,674,000	\$ 12,732,550	\$ (4,058,550)	\$ 30,236,942	42.1%
June 30, 2012	\$ 10,750,000	\$ 10,718,550	\$ 31,450	\$ 30,013,958	35.7%
June 30, 2011	\$ 10,387,000	\$ 12,339,213	\$ (1,952,213)	\$ 30,605,429	40.3%
June 30, 2010	\$ 7,837,000	\$ 6,771,411	\$ 1,065,589	\$ 32,884,807	20.6%

See accompanying notes to required supplementary information.

**Board of Water Supply  
City and County of Honolulu  
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
REQUIRED BY GASB STATEMENT NO. 75  
Fiscal Years Ended June 30, 2019 and 2018**

**NOTE A - SIGNIFICANT METHODS AND ASSUMPTIONS**

The actuarially determined annual required contributions (“ARC”) for the fiscal year ending June 30, 2019 was developed in the July 1, 2017 valuation. The following summarizes the significant methods and assumptions used to determine the actuarially determined contribution for the fiscal year ended June 30, 2019:

Actuarial valuation date	July 1, 2017
Actuarial cost method	Entry Age Normal
Amortization method	Level percent, closed
Equivalent single amortization period	18.9 as of June 30, 2019
Asset valuation method	Market
Inflation rate	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, 2015 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 6.6%, 6.6%, and 9.0%, declining to a rate of 4.86% after 14 years
HMO	Initial rate of 9.0%, declining to a rate of 4.86% after 14 years
Part B	Initial rate of 2.0% and 5%; declining to a rate of 4.7% after 14 years
Dental	3.50%
Vision	2.50%
Life Insurance	0.00%

**Board of Water Supply  
City and County of Honolulu  
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION  
REQUIRED BY GASB STATEMENT NO. 75 (Continued)  
Fiscal Years Ended June 30, 2019 and 2018**

**NOTE A - SIGNIFICANT METHODS AND ASSUMPTIONS (Continued)**

The following summarizes the significant methods and assumptions used to determine the actuarially determined contribution for the fiscal year ended June 30, 2018:

Actuarial valuation date	July 1, 2015
Actuarial cost method	Entry Age Normal
Amortization method	Level percent, closed
Equivalent single amortization period	19.9 as of June 30, 2018
Asset valuation method	Market
Inflation rate	3.00%
Investment rate of return	7.00%
Payroll growth	3.50%
Salary increases	4.00% to 19.00% including inflation
Demographic assumptions	Based on the experience study covering the five year period ending June 30, 2010 as conducted for the Hawaii Employees' Retirement System
Mortality	System-specific mortality tables
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 9%, declining to a rate of 5% after 8 years
HMO	Initial rate of 7%, declining to a rate of 5% after 8 years
Part B	Initial rate of 3% for the first two years, 5% thereafter
Dental	4.00%
Vision	3.00%
Life Insurance	0.00%

The actuarial valuation as of July 1, 2009, which was used to develop the ARC for fiscal year 2011 and 2012, 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 contributions (OPEB).

**SUPPLEMENTARY INFORMATION**

**Board of Water Supply  
City and County of Honolulu  
SCHEDULE OF BONDS PAYABLE  
June 30, 2019**

	<u>Interest Rate</u>	<u>Bond Dated</u>	<u>Maturing Serially From</u>	<u>Call Dates (1)</u>	<u>Outstanding June 30, 2019</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2012A</b>					
Insured Serial Bonds	5.000%	3/29/2012	7/1/2019	(2)	\$ 4,140,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2020	(2)	2,320,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2021	(2)	6,865,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2022	(2)	8,535,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2023	7/1/2022	3,605,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2024	7/1/2022	3,790,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2025	7/1/2022	3,980,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2026	7/1/2022	4,185,000
Insured Serial Bonds	4.500%	3/29/2012	7/1/2027	7/1/2022	4,390,000
Insured Serial Bonds	4.500%	3/29/2012	7/1/2028	7/1/2022	4,595,000
Insured Serial Bonds	4.500%	3/29/2012	7/1/2029	7/1/2022	4,805,000
Insured Serial Bonds	4.500%	3/29/2012	7/1/2030	7/1/2022	5,025,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2031	7/1/2022	5,270,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2032	7/1/2022	5,540,000
Insured Serial Bonds	5.000%	3/29/2012	7/1/2033	7/1/2022	5,825,000
Bifurcated Serial Bonds	2.000%	3/29/2012	7/1/2020	(2)	2,000,000
					<u>74,870,000</u>
<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	5.000%	12/9/2014	7/1/2026	7/1/2024	6,480,000
Insured Serial Bonds	5.000%	12/9/2014	7/1/2027	7/1/2024	6,810,000
Insured Serial Bonds	3.000%	12/9/2014	7/1/2028	(2)	930,000
Insured Serial Bonds	5.000%	12/9/2014	7/1/2028	7/1/2024	6,215,000
Insured Serial Bonds	5.000%	12/9/2014	7/1/2029	7/1/2024	7,505,000
Insured Serial Bonds	5.000%	12/9/2014	7/1/2030	7/1/2024	7,930,000
Insured Serial Bonds	3.250%	12/9/2014	7/1/2031	(2)	4,470,000
Insured Serial Bonds	5.000%	12/9/2014	7/1/2031	7/1/2024	3,825,000
Insured Serial Bonds	4.000%	12/9/2014	7/1/2032	7/1/2024	6,575,000
Insured Serial Bonds	4.000%	12/9/2014	7/1/2033	7/1/2024	6,840,000
Insured Serial Bonds	4.000%	12/9/2014	7/1/2034	7/1/2024	8,500,000
Insured Serial Bonds	4.000%	12/9/2014	7/1/2035	7/1/2024	8,755,000
Insured Serial Bonds	4.000%	12/9/2014	7/1/2036	7/1/2024	9,205,000
					<u>\$ 101,655,000</u>

(1) Call dates indicated are optional.

(2) Noncallable.



**Board of Water Supply  
City and County of Honolulu  
SCHEDULE OF BONDS PAYABLE (Continued)  
June 30, 2019**

	<u>Interest Rate</u>	<u>Bond Dated</u>	<u>Maturing Serially From</u>	<u>Call Dates (1)</u>	<u>Outstanding June 30, 2019</u>
<b>Water System Revenue Bonds</b>					
<b>Series 2014B (AMT)</b>					
<b>Taxable Serial Bonds</b>					
Insured Serial Bonds	2.144%	12/9/2014	7/1/2019	(2)	\$ 4,680,000
Insured Serial Bonds	2.389%	12/9/2014	7/1/2020	(2)	4,790,000
Insured Serial Bonds	2.619%	12/9/2014	7/1/2021	(2)	2,585,000
Insured Serial Bonds	2.755%	12/9/2014	7/1/2022	(2)	1,540,000
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
Insured Serial Bonds	3.685%	12/9/2014	7/1/2029	(2)	1,910,000
Insured Serial Bonds	3.760%	12/9/2014	7/1/2030	(2)	1,975,000
Insured Serial Bonds	3.860%	12/9/2014	7/1/2031	(2)	2,045,000
					<u>29,765,000</u>
					<u>\$ 206,290,000</u>

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

**Board of Water Supply  
City and County of Honolulu  
SCHEDULE OF NET REVENUE REQUIREMENT  
Fiscal Years Ended June 30, 2019 and 2018**

	<u>2019</u>	<u>2018</u>
<b>REVENUES</b>		
Water sales	\$ 226,347,969	\$ 229,526,599
Interest	7,549,495	6,097,077
Other	<u>2,697,545</u>	<u>3,303,197</u>
Total revenues	<u>236,595,009</u>	<u>238,926,873</u>
<b>DEDUCTIONS</b>		
Operating expenses	203,999,113	197,745,380
Less: depreciation expense	(47,266,015)	(47,337,006)
Less: allocated depreciation charges	<u>(1,515,219)</u>	<u>(1,587,002)</u>
Total deductions	<u>155,217,879</u>	<u>148,821,372</u>
Net revenues	<u>\$ 81,377,130</u>	<u>\$ 90,105,501</u>
<b>NET REVENUE REQUIREMENT</b>		
Greater of:		
1) Aggregate debt service	\$ 17,875,798	\$ 17,844,248
Required deposits	<u>          --</u>	<u>          --</u>
	<u>\$ 17,875,798</u>	<u>\$ 17,844,248</u>
2) Aggregate debt service	\$ 17,875,798	\$ 17,844,248
Minimum required debt service ratio	x <u>          1.20</u>	x <u>          1.20</u>
Net revenue requirement	<u>\$ 21,450,958</u>	<u>\$ 21,413,098</u>
Net revenue to aggregate debt service ratio	<u>          4.55</u>	<u>          5.05</u>