



**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

Financial Statements and
Required Supplementary Information

June 30, 2018 and 2017

(With Independent Auditors' Report Thereon)

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

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Independent Auditors' Report

The Board of Water and Power Commissioners
City of Los Angeles
Department of Water and Power:

Report on the Financial Statements

We have audited the accompanying financial statements of the City of Los Angeles Department of Water and Power Water Revenue Fund (Water System), an enterprise fund of the City of Los Angeles, California, as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the Water System's basic financial statements for the years then ended, 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 U.S. generally accepted accounting principles; 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.

Auditors' 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 auditors' 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 City of Los Angeles Department of Water and Power Water Revenue Fund as of June 30, 2018 and 2017, and the changes in its financial position and its cash flows for the years then ended, in accordance with U.S. generally accepted accounting principles.



Emphasis of Matters

As discussed in note 1 (a) to the financial statements, the financial statements present only the Water System and do not purport to, and do not, present fairly the financial position of the City of Los Angeles, California, as of June 30, 2018 and 2017, the changes in its financial position or, where applicable, its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

As discussed in Note 2 (a) to the financial statements, in fiscal year 2018, the Water System adopted the provisions of Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3-17 and the other required supplementary information on pages 91-97, respectively, 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 Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 21, 2018, on our consideration of the Water System'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 Water System'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 Water System's internal control over financial reporting and compliance.

KPMG LLP

Los Angeles, California
December 21, 2018

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The following discussion and analysis of the financial performance of the City of Los Angeles Department of Water and Power Water Revenue Fund (Water System) provides an overview of the financial activities for the fiscal years ended June 30, 2018 and 2017. Descriptions and other details pertaining to the Water System are included in the notes to the financial statements. This discussion and analysis should be read in conjunction with the Water System's financial statements, which begin on page 18.

Using This Financial Report

This annual financial report consists of the Water System's financial statements and required supplementary information and reflects the self-supporting activities of the Water System that are funded primarily through the sale of water to the public it serves.

Statements of Net Position, Statements of Revenues, Expenses, and Changes in Net Position, and Statements of Cash Flows

The financial statements provide an indication of the Water System's financial health. The statements of net position include all of the Water System's assets, deferred outflows, liabilities, deferred inflows, and net position using the accrual basis of accounting, as well as an indication about which assets can be utilized for general purposes, and which assets are restricted as a result of bond covenants and other commitments as of June 30, 2018 and 2017. The statements of revenues, expenses, and changes in net position report all of the revenues and expenses during the time periods indicated. The statements of cash flows report the cash provided and used by operating activities, noncapital financing activities, capital and related financing activities, and investing activities for the years ended June 30, 2018 and 2017.

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The following tables summarize the financial condition and changes in net position of the Water System as of and for the fiscal years ended June 30, 2018, 2017, and 2016:

**Table 1 – Condensed Schedule of Assets, Deferred Outflows, Liabilities,
Deferred Inflows, and Net Position**

(Amounts in millions)

	June 30		
	2018	2017	2016
Assets and Deferred Outflows			
Utility plant, net	\$ 8,033	7,554	7,013
Investments	51	50	34
Other noncurrent assets	766	1,195	1,257
Current assets	920	973	903
Deferred outflows	388	527	259
Total assets and deferred outflows	\$ 10,158	10,299	9,466
Net Position			
Net position:			
Net investment in capital assets	\$ 2,359	2,367	2,204
Restricted	102	413	400
Unrestricted	557	356	392
Total net position	3,018	3,136	2,996
Liabilities and Deferred Inflows			
Long-term debt, net of current portion	5,683	5,468	5,162
Other long-term liabilities	636	731	402
Current liabilities	594	831	692
Deferred inflows	227	133	214
Total liabilities and deferred inflows	7,140	7,163	6,470
Total net position, liabilities, and deferred inflows	\$ 10,158	10,299	9,466

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Table 2 – Condensed Schedule of Revenues, Expenses, and Changes in Net Position

(Amounts in millions)

	Year ended June 30		
	2018	2017	2016
Operating revenues:			
Residential	\$ 510	450	458
Multiple-dwelling units	352	339	340
Commercial and industrial	255	265	278
Other	73	65	56
Total operating revenues	<u>1,190</u>	<u>1,119</u>	<u>1,132</u>
Operating expenses:			
Purchased water	\$ (185)	(195)	(262)
Maintenance and other operating expenses	(501)	(506)	(474)
Depreciation and amortization	(165)	(157)	(144)
Total operating expenses	<u>(851)</u>	<u>(858)</u>	<u>(880)</u>
Operating income	<u>339</u>	<u>261</u>	<u>252</u>
Nonoperating revenues (expense):			
Investment income	5	3	9
Federal bond subsidies	17	17	17
Other nonoperating revenues, net	3	15	3
Debt expense, net	(197)	(187)	(173)
Total nonoperating revenues (expense), net	<u>(172)</u>	<u>(152)</u>	<u>(144)</u>
Income before capital contributions	167	109	108
Capital contributions	<u>33</u>	<u>31</u>	<u>47</u>
Increase in net position	200	140	155
Beginning balance of net position	3,136	2,996	2,841
Cumulative effect of change in accounting for OPEB	<u>(318)</u>	<u>—</u>	<u>—</u>
Ending balance of net position	<u>\$ 3,018</u>	<u>3,136</u>	<u>2,996</u>

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Assets

Utility Plant

The Water System utility plant assets fall into five major categories: source of water supply, pumping, purification, distribution, and general (water infrastructure). Each category of assets is important for providing water services and has a specific purpose. During fiscal years 2018 and 2017, the Water System's net utility plant increased \$479 million and \$541 million, respectively. Net utility plant consists of significant investments in water infrastructure less accumulated depreciation.

During fiscal year 2018, utility plant additions totaled \$642 million. Approximately \$424 million of the \$642 million in additions were construction work in progress (CWIP) expenditures and the balance, \$218 million, comprises direct additions by utility plant categories, net of fiscal year 2018 retirements and disposals. About \$496 million in CWIP projects were transferred from CWIP to plant accounts. Major CWIP additions/expenditures during the year included: \$44 million for Headworks West reservoir in replace of Ivanhoe and Silver Lake reservoir, \$35 million for mainline replacement program, \$28 million for LA Reservoir Ultraviolet Light Treatment plant formerly Granada Hills reservoir, \$23 million for Machado Lake Pipeline project, \$19 million to replace 25,000 feet of pipes to 60 inches at Foothill trunk line, \$18 million for Owens Lake Dust Mitigation, \$17 million for North Hollywood West Wellhead treatment plant, and \$14 million to modify Upper Stone Canyon Reservoir to comply with the Surface Water Treatment Rule (SWTR). Approximately, \$335 million and \$149 million of additions were transferred from CWIP to source of supply and distribution plant accounts, respectively. Major projects transferred from CWIP included \$263 million for Owens Lake Dust Mitigation Phase 9 & 10, \$72 million for Bullcreek extension realignment, \$59 million for Elysian Reservoir water quality improvement project, \$40 million for mainline replacement at various water districts, \$35 million for Lower Franklin Reservoir number 2 floating cover replacement, and \$11 million for North Hollywood Water Recycling project.

Direct additions are mostly related to improvements in distribution infrastructure as part of the Water System's reliability program. Many of the Water System's assets were installed between 1920 and 1970, thus the reliability program evaluates water main infrastructure to determine which assets should be replaced first to reduce leaks and the frequency of water service disruptions due to water main breaks.

Approximately \$147 million of the direct additions are for improvements to the distribution system. During fiscal year 2018, the Water System invested \$117 million in programs to replace mains, services, regulator stations, and meters, including continuing replacement of existing meters with lead-free meters and fittings in accordance with the Department's goal to increase the reliability and safety of its distribution system. Additionally, \$5 million went into installing new fire hydrants as ordered by the fire department to provide fire protection for new construction, and \$13 million was invested in improvements to facilities and yards that support water distribution. A combined total of about \$12 million was invested in improvements to water reservoirs and tanks, field instrumentations, industrial control systems in the metro area, and tools/equipment for operations facilities to further improve water distribution.

Source of supply additions increased by \$27 million, which is primarily attributable to improvements in Owens Lake efficiency measures improved to reduce unnecessary spending on regulatory requirements and decrease

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water consumption and replacement or recoating of supply main sag pipes at LA aqueduct system. During fiscal year 2018, the balance of general plant assets increased by \$30 million due to direct additions. The increase was attributable to buildings and improvements of approximately \$16 million for purchase of 6060 Sepulveda Blvd office building and general facilities improvements such as improvements to yard grounds, security upgrades, elevator upgrades, and circuitry. Other investments in general plant include about \$11 million for fleet purchases, communication/fiber optic equipment, and shop tools. Further investments in general plant include about \$3 million for replacement of computer/hardware, furniture, processing systems, and net amortization of software. Approximately, \$6 million in similar improvements were made to pumping stations and \$7 million to purification facilities for upgrading the technology of treatment systems.

The completion of projects for distribution, source of supply, purification, and general plant resulted in the \$496 million transfer from CWIP to depreciable assets during 2018.

During fiscal year 2018, accumulated depreciation, net of retirements increased \$163 million. The Water System uses the straight-line depreciation method for all assets based on estimated service lives. The increase in accumulated depreciation was mostly due to depreciation recognized on distribution, source of supply, and general plant assets.

For fiscal year 2017, utility plant additions totaled \$695 million. Approximately \$480 million of the \$695 million in additions were construction work in progress (CWIP) expenditures and the balance, \$215 million, comprises direct additions by utility plant categories, net of fiscal year 2017 retirements and disposals. About \$139 million in CWIP projects were transferred from CWIP to plant accounts. Major CWIP additions/expenditures during the year included: \$133 million for Owens Lake Dust Mitigation, \$50 million for River Supply Conduit Improvement Upper Reach; \$31 million for Headworks West Reservoir, \$30 million for mainline replacement program; and \$24 million for Elysian Reservoir water quality. Approximately, \$123 million and \$10 million of additions were transferred from CWIP to distribution and general plant accounts, respectively.

Direct additions are mostly related to improvements in distribution infrastructure as part of the Water System's reliability program. Many of the Water System's assets were installed between 1920 and 1970, thus the reliability program evaluates water main infrastructure to determine which assets should be replaced first to reduce leaks and the frequency of water service disruptions due to water main breaks.

Approximately \$131 million of the additions are for improvements to the distribution system. During fiscal year 2017, the Water System invested \$98 million in programs to replace mains, services, and meters, including continuing replacement of existing meters with lead-free meters and fittings in accordance with the Department's goal to increase the reliability and safety of its distribution system. Additionally, \$6 million went into installing new fire hydrants as ordered by the fire department to provide fire protection for new construction, and \$6 million was invested in replacements and betterments for Water System's buildings that support water distribution. A combined total of about \$21 million was invested in water recycling, trunk line improvements, regulator stations, treatment improvements, Public Works and Metro Rail projects, and improvements to the Water System operation facilities and automated control systems to further improve water distribution.

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Source of supply additions increased by \$31 million, which is primarily attributable to improvements to the aqueduct system such as water control and metering structures, appurtenant reservoir facilities, patrol road betterments, fencing, replacement of old or obsolete structures, and to Owens Lake efficiency measures improved to reduce unnecessary spending on regulatory requirements and decrease water consumption. During fiscal year 2017, the balance of general plant assets increased by \$34 million due to direct additions. The increase was attributable to fleet purchases of approximately \$22 million to support new and ongoing programs such as the City Trunk Line South SEM Tunnel Project and water runoff mitigation in the Owens Valley due to increased water runoff from the winter's snowpack accumulation. Other investments in general plant include about \$12 million in improvements to the system's heat ventilation air conditioning motors to promote energy efficiency, buildings at southern district maintenance yards to replace old or obsolete facilities, and replacement of aging computers, furniture, and equipment. Further investments in general plant include improvements to fleet facilities, administrative buildings, and shops tools and equipment to increase the safety and productivity within the improved sites. Approximately, \$5 million in similar improvements were made to pumping stations and \$13 million to purification facilities for upgrading the technology of treatment systems.

The completion of projects for distribution, source of supply, and general plant resulted in the \$139 million transfer from CWIP to depreciable assets during 2017.

During fiscal year 2017, accumulated depreciation, net of retirements increased \$154 million. The Water System uses the straight-line depreciation method for all assets based on estimated service lives. The increase in accumulated depreciation was mostly due to depreciation recognized on distribution, source of supply, and general plant assets.

Source of water supply assets are the assets that the Department has constructed and/or purchased to help ensure an adequate supply of water. The Department has four major sources of water. These include the following:

- Los Angeles Aqueduct and Second Los Angeles Aqueduct supply imported water from the Owens Valley and the Mono Basin
- Local groundwater supply (with pumping rights in the San Fernando, Sylmar, and Central and West Coast Basins)
- Purchased supply from Metropolitan Water District
- Recycled water

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All sources of water, except for recycled water, are supplied for potable use, that is, the water from these sources is of drinkable quality. Table 3 below shows the percentage of water delivered from the major sources:

**Table 3 – Sources of Potable Water
Supplied during Fiscal years 2018, 2017, and 2016**

	Fiscal year 2018		Fiscal year 2017		Fiscal year 2016	
	Millions of gallons	Percentage	Millions of gallons	Percentage	Millions of gallons	Percentage
Source:						
Aqueduct	93,880	57%	69,274	43%	16,640	11%
Wells	7,040	5	16,695	10	25,759	16
Purchases	59,792	36	71,593	45	112,667	71
Recycled water	3,249	2	2,616	2	3,229	2
	163,961	100%	160,178	100%	158,295	100%

The Aqueduct supplied 14% more water compared to the prior year.

Water storage during low-demand, cold, or wet periods is essential to provide the capacity needed to supply the extra water needed during warm weather or emergency situations. The Water System's 130 tanks and reservoirs, ranging in size from 10,000 to 60 billion gallons, have a current capacity of approximately 313,049 acre feet, or 102.15 billion gallons. Nine aqueduct reservoirs provide 96% of the Water System's storage capacity; major and minor distribution reservoirs provide the remaining 4%.

Further information regarding the Water System's utility plant can be found in note 3 to the financial statements.

Other Noncurrent Assets

During fiscal year 2018, other noncurrent assets had a net decrease of \$429 million primarily due to the write off of the net postretirement asset of \$318 million in conjunction with the adoption of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The use of \$265 million in unspent construction funds from the prior year, and a decrease in regulatory assets associated with pension of \$64 million.

The decrease was offset by an increase in regulatory assets associated with other postemployment benefits (OPEB) upon adoption of GASB 75 effective July 1, 2017, of \$199 million and an increase of \$19 million to regulatory assets primarily for costs related to water conservation programs.

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During fiscal year 2017, other noncurrent assets decreased \$62 million due to the use of \$50.6 million in unspent construction funds from the prior year, \$27.3 million decrease in the regulatory asset for pension due to amortization, and a \$2.3 million decrease in the postemployment benefit asset due to the Department contributions below actuarially required contributions, offset by a \$17.8 million increase in other regulatory assets due to water conservation rebates for irrigation and reclaimed water upgrades and high-efficiency toilet rebates.

Current Assets

During fiscal year 2018, current assets decreased \$53 million mostly due to a \$135 million decrease in under recovered costs as a result of higher year over year consumption. This decrease was offset by a \$27 million increase in unrestricted cash, a \$15 million increase in restricted cash for debt service purposes due to the July 2018 debt service payment being larger than the July 2017 payment. A \$19 million increase in net accounts receivable, a \$12 million increase in accrued unbilled revenue due to higher estimated consumption and an aggregate increase in other current assets of \$8 million.

During fiscal year 2017, current assets increased \$69 million mostly due to a \$32 million increase in under recovered costs caused by less consumption during the year and a \$24 million increase in restricted cash for debt service purposes due to the July 2017 debt service payment being larger than the July 2016 debt service payment.

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Net Position, Liabilities, and Deferred Inflows

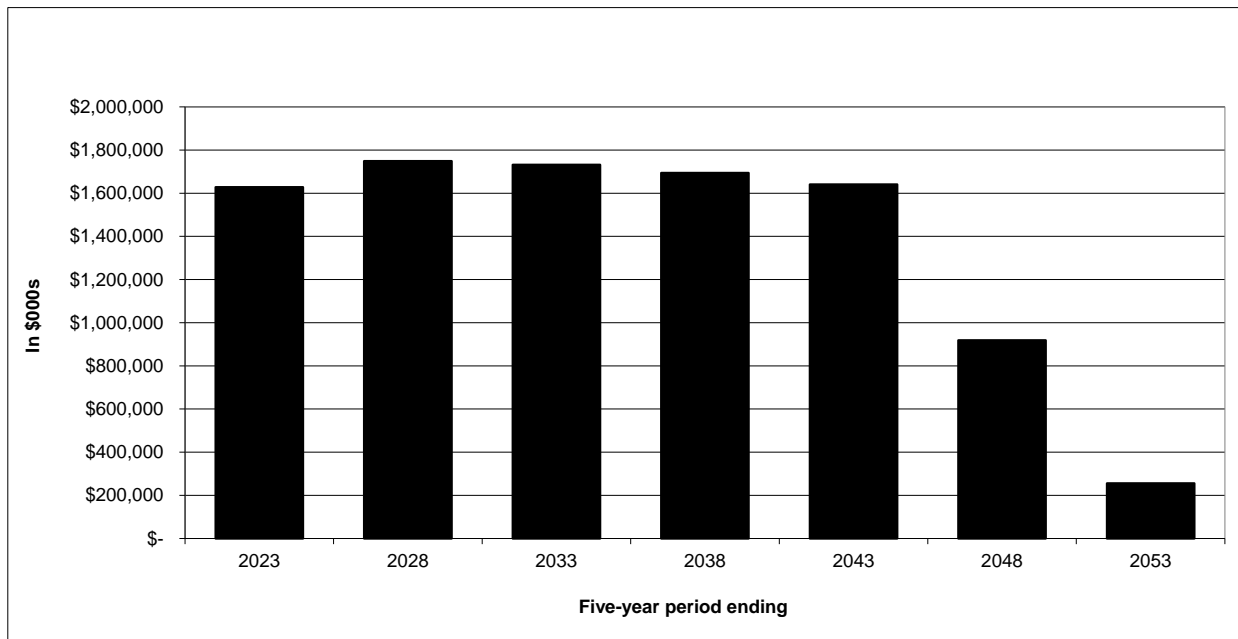
Long-Term Debt

As of June 30, 2018, the Water System's total outstanding long-term debt balance, including the current portion was approximately \$5.79 billion. This is an increase of \$217 million over the prior year, resulting from the sale of \$231 million in Water System revenue bonds plus \$42 million in bond issue premiums and \$50 million in loans from the State of California's State Water Resources Control Board (SWRCB), offset by scheduled maturities of \$78 million and \$28 million of amortized premiums and discounts.

As of June 30, 2017, the Water System's total outstanding long-term debt balance, including the current portion was approximately \$5.57 billion. This is an increase of \$320 million over the prior year, resulting from the sale of \$530 million in Water System revenue bonds plus \$83 million in bond issue premiums and \$72 million in loans from the State of California's State Water Resources Control Board (SWRCB), offset by scheduled maturities of \$61 million, defeasance of \$275 million, and \$29 million of amortized premiums and discounts.

Scheduled payments of principal, plus scheduled interest as of June 30, 2018, are shown in the chart below:

Chart: Debt Service Requirements



In January 2018, S&P Global Ratings, Moody's Investors Service, and Fitch Ratings affirmed the Water System's bond rating of AA+, Aa2, and AA, respectively. Additional information regarding the Water System's long-term debt can be found in note 6 to the financial statements.

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The Master Bond Resolution allows for parity debt to be issued as long as the Department maintains debt service coverage ratio of 1.25. The debt service coverage ratio is computed by taking operating revenue less operating expense excluding depreciation expense to calculate net revenue. Net revenue is then divided by the current year's debt service payment. The Water System debt service coverage for fiscal year 2017–2018 was 1.82.

Other Long-Term Liabilities

The Water System's pension liability decreased \$272 million from fiscal year 2017 to 2018 and increased \$326 million from 2016 to 2017 due to the pension activity below:

<u>Description</u>	<u>Fiscal year ended</u>		
	<u>2018</u>	<u>2017</u>	<u>2016</u>
Beginning, net pension liability	\$ 698,878	373,024	411,485
Pension expense	78,301	101,415	(8,782)
Employer contributions	(128,576)	(119,639)	(125,944)
New net deferred inflows/outflows	(192,628)	309,737	37,376
Recognition of prior deferred inflows/outflows	(29,531)	34,341	58,889
Ending, net pension liability	<u>\$ 426,444</u>	<u>698,878</u>	<u>373,024</u>

The net pension liability decreased due to actual earnings from investments exceeding the 7.25% projected returns. Assuming actuarial projections are in the line with actual results, the pension liability increases with pension expense and decreases with employer contributions. Differences between expected and actual experience with economic and demographic factors; the effects of changes in assumptions about future economic and demographic factors; differences between actual and projected earnings and plan investments; differences between proportionate share of collective contributions and employer's actual contributions; and the effects of changes in proportion of the collective pension amounts are recorded as deferred outflows and deferred inflows and are amortized over periods ranging from five to six years in fiscal years 2018 and 2017.

Other Postemployment Benefits (OPEB)

The Water System adopted the provisions of the GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which resulted in a \$318 million decrease in the net position and the recognition of a regulatory asset of \$211 million, which was effective at the beginning of the period (July 1, 2017).

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The Water System's net OPEB liability as a result of implementing GASB No. 75 and related activity are shown below:

<u>Description</u>	<u>Healthcare</u>	<u>Death Benefit</u>	<u>Total</u>
Beginning net OPEB liability at July 1, 2017	\$ 204,468	37,542	242,010
OPEB expense	19,000	2,767	21,767
Employer contributions	(27,645)	(2,625)	(30,270)
New net deferred inflows/outflows	(57,527)	168	(57,359)
Recognition of prior deferred inflows/outflows	—	—	—
Ending net OPEB liability at June 30, 2018	<u>\$ 138,296</u>	<u>37,852</u>	<u>176,148</u>

Other Long-term Liabilities and Deferred Inflows

During fiscal year 2018, other long-term liabilities had a net decrease of \$95 million primarily due to the \$272 million reduction of the net pension liability offset by the recognition of the \$176 million of the net other postemployment benefits and death benefits liabilities that resulted from the adoption of GASB No. 75, and a \$1.5 million increase in accrued workers' compensation claims. Net pension liability decreased and deferred inflows increased from prior year due to actual investment returns being more than the projected 7.25% return.

During fiscal year 2017, other long-term liabilities had a net increase of \$329 million primarily due to the \$326 million increase in the net pension liability and a \$3 million increase in accrued worker's compensation claims. Deferred inflows had a net decrease of \$81 million primarily due to an \$83 million reduction of deferred inflows related to pension, offset by a \$2 million increase in deferred inflows for debt refunding. The net pension liability increased due to less than 1% of return recognized on the market value of assets and changes in actuarial assumptions.

Current Liabilities

During fiscal year 2018, current liabilities decreased \$237 million mostly due to a \$250 million decrease in the Department's line of credit used by the Water System and a \$26 million decrease in accounts payable and accrued expenses that did not reoccur in 2018. The decrease of \$26 million in accounts payable and accrued expenses in 2018 was primarily due to \$16 million in expenses accrued at the end of fiscal year 2017 for the Owen's Lake Mitigation project and the Owen's Lake Storm runoff compared to less than a million dollars on those same projects for fiscal year 2018. The decreases were offset by a \$16 million increase in customer deposits, a \$12 million increase in accrued interest due to interest attributed to new bond issuances, a \$4 million increase in secured lending transactions, a \$4 million increase in accrued employee expenses due to timing differences and cost of living increases, a \$3 million increase in the current portion of long-term debt due within one year due to scheduled maturities and a \$1 million increase in the inter-fund payable to the Power System for services provided to the Water System.

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During fiscal year 2017, current liabilities increased \$139 million mostly due to a \$100 million increase in the Department's line of credit used by the Water System, \$27 million in customer deposits, and \$11 million in accrued interest.

Changes in Net Position

Revenue

The operating revenue of the Water System is generated from selling water to its customers. The current water rate ordinance effective April 15, 2016 has two components, a base rate and adjustable rates, which are referred to as pass-through rates. The pass-through rates are in place to recover the cost of specific expenses. These specific expenses include purchased water, water quality, reclaimed water, demand-side management (or conservation expense), water security, Owens Valley regulatory, and low-income subsidy credits. As a result of the inclusion of pass-through rates in the water rates, revenue can increase or decrease from one year to the next based on the Water System incurring greater or smaller expenses in these categories.

The Water System has five major customer categories. These categories include residential, multiple-dwelling units, commercial, industrial, and other. Table 4 below summarizes the percentage contribution of revenue from each customer category during fiscal years 2018, 2017, and 2016:

Table 4 – Revenue and Percentage of Revenue by Customer Class

(Amounts in thousands)

	Fiscal year 2018		Fiscal year 2017		Fiscal year 2016	
	<u>Revenue</u>	<u>Percentage</u>	<u>Revenue</u>	<u>Percentage</u>	<u>Revenue</u>	<u>Percentage</u>
Type of customer:						
Residential	\$ 509,614	43 %	\$ 450,384	40 %	\$ 457,961	40 %
Multiple-dwelling units	352,123	30	338,623	30	339,787	30
Commercial	217,348	18	224,743	20	234,728	21
Industrial	37,386	3	39,947	4	43,057	4
Other, net of uncollectible accounts	73,710	6	64,850	6	56,244	5
	<u>\$ 1,190,181</u>	<u>100 %</u>	<u>\$ 1,118,547</u>	<u>100 %</u>	<u>\$ 1,131,777</u>	<u>100 %</u>

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Residential and multi-dwelling units customers provide approximately 73% of the Water System's 2018 revenue and 70% of the Water System's revenue for both 2017 and 2016, respectively, representing the largest class of customers. As of June 30, 2018, the Water System had approximately 683,000 customers. As shown in table 5 below, 489,000 or 71%, of total customers were in the residential customer class as of June 30, 2018, 2017, and 2016:

Table 5 – Number of Customers and Percentage of Customers by Customer Class

(Numbers in thousands)

	Fiscal year 2018		Fiscal year 2017		Fiscal year 2016	
	Number	Percentage	Number	Percentage	Number	Percentage
Type of customer:						
Residential	489	71 %	487	71 %	484	71 %
Multiple-dwelling units	121	18	121	18	121	18
Commercial	59	9	59	9	59	9
Industrial	6	1	6	1	6	1
Other, including uncollectible accounts	8	1	7	1	8	1
	<u>683</u>	<u>100 %</u>	<u>680</u>	<u>100 %</u>	<u>678</u>	<u>100 %</u>

During fiscal year 2018, operating revenue increased by \$72 million, or 6.4%, from fiscal year 2017, due to higher water sales of 9 million hundred cubic feet, or 5%, which resulted in an increase of \$63.9 million in pass-through operating revenue, as compared to 2017. The increase in operating revenue can be attributed to the rebound from conservation after the drought, and economic growth.

During fiscal year 2017, operating revenue decreased by \$13.2 million, or -1.2%, from fiscal year 2016, due to lower pass-through expenses of \$108.2 million, lower water sales of 3.3 million hundred cubic feet, or 2.0%, offset by an increase of \$118.6 million in billed revenue, as compared to 2016. The increase in billed revenue can be attributed to the new rate ordinance, effective April 15, 2016.

Operating Expenses

Purchased water expense is generally the single largest expense the Water System incurs each fiscal year and represents the cost of buying water. However, after stretching over six years, the record statewide drought finally ended in April 2017. During year 2018, the Department decreased its purchased water costs by \$9.7 million, or 5%, due to a 14% increase in water supplied by the aqueduct, and runoff available from snowfall. The Department continues to urge customers to make water conservation a way of life and has continued to maintain all water conservation policies and programs, and has continued investing in developing local water supplies through stormwater capture and recycled water to protect the city from future drought. See table 3 on page 9 for a summary of sources of water.

**CITY OF LOS ANGELES
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Management's Discussion and Analysis

June 30, 2018 and 2017

(Unaudited)

Table 6 below summarizes the Water System's operating expenses for fiscal years 2018, 2017, and 2016:

Table 6 – Operating Expenses and Percentage of Expense by Type Expense

(Amounts in thousands)

	Fiscal year 2018		Fiscal year 2017		Fiscal year 2016	
	Expenses	Percentage	Expenses	Percentage	Expenses	Percentage
Type of expense:						
Purchased water	\$ 184,957	22 %	\$ 194,699	23 %	\$ 261,971	30 %
Other operating expenses	348,669	41	354,787	41	334,545	38
Maintenance	152,268	18	151,123	18	139,253	16
Depreciation and amortization	165,290	19	156,809	18	144,186	16
	\$ 851,184	100 %	\$ 857,418	100 %	\$ 879,955	100 %

Fiscal Year 2018

Fiscal year 2018, maintenance and other operating expenses were \$5 million lower as compared to the prior year. Operating costs among most categories were lower compared to a year ago. Both source of supply and pumping expenses were \$2 million lower, distribution and customer accounting were \$1 million and \$1.7 million lower, respectively. Administrative and general expenses were \$7.3 million lower. These lower expenses were offset by higher costs for purification expenses, or water treatment costs of \$6.1 million due to increased use of aqueduct water. Marketing, taxes, and maintenance costs all increased by \$1.0 million. Purchased water decreased by \$10 million, as compared to the prior year, mainly due to more water being supplied by the aqueduct due to an increase in rainfall in fiscal year 2018 over 2017. The \$8 million increase in depreciation and amortization expense can mainly be attributed to year over year increases in depreciation and amortization for regulatory assets (\$1 million), distribution plant (\$4 million), source of supply (\$2 million), and general plant (\$1 million).

Fiscal Year 2017

Fiscal year 2017, maintenance and other operating expenses were \$32 million higher as compared to the prior year. The increase was due to a \$22 million and \$12 million increase in operating and maintenance expenses for source of supply (Aqueduct and Owens Lake, respectively), and an \$8 million increase in administrative and general expenses due to higher legal, special services, and environmental costs, offset by a net aggregate \$10 million decrease in other operating and maintenance expense categories.

Purchased water decreased by \$67.2 million, as compared to the prior year, mainly due to more water being supplied by the aqueduct due to an increase in rainfall in fiscal year 2017 over 2016.

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(Unaudited)

Nonoperating Revenue and Expenses

Fiscal Year 2018

Compared to the fiscal year 2017, fiscal year 2018's nonoperating revenue was \$9.4 million lower. The \$11.3 million decrease other nonoperating income can be primarily attributed to a onetime insurance reimbursement the Water System had in fiscal year 2017 not reoccurring in 2018. The \$2 million increase in investment income can be mainly attributed to the change in the market values of investments.

Debt expenses increased \$10 million year over year. The \$10 million net increase resulted from a \$14 million increase in interest expense, due to the issuance of new debt, reduced by the year over year increases in debt amortization expenses of \$3.2 million and a \$.3 million in the allowance for funds used during construction.

Capital contributions increased by \$2 million due to funds received from L.A. County for Proposition 84 Drought Implementation Grant. The majority of the overall balance consists of \$25.8 million at fiscal year ended June 30, 2018 from customers for new service installations, distribution mains, meter installations, fire hydrants, and acreage supply.

Fiscal Year 2017

Compared to the prior fiscal year, fiscal year 2017's nonoperating revenue and nonoperating expenses were \$7.7 million higher and \$1.0 million lower, respectively. The \$5.3 million decrease in investment income can be mainly attributed to a \$4.3 million change in the market values of investments.

Debt costs, excluding the allowance for funds used during construction, increased \$13.1 million year over year. The \$13.1 million net increase resulted from a \$21.5 million increase in interest expense, due to the issuances of new debt, reduced by debt amortization expenses of \$8.4 million.

Capital contributions decreased by \$15.6 million primarily due to lower contributions from governments, tract developers, and customers. The majority of the overall balance consists of \$19.4 million at fiscal year ended June 30, 2017 from customers for new service installations, distribution mains, meter installations, fire hydrants, and acreage supply.

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

Statements of Net Position

June 30, 2018 and 2017

(Amounts in thousands)

Assets and Deferred Outflows	2018	2017
Noncurrent assets:		
Utility plant:		
Source of water supply	\$ 2,337,848	1,975,048
Pumping	297,070	290,584
Purification	835,044	818,277
Distribution	5,364,668	5,069,620
General	793,334	760,627
Total	9,627,964	8,914,156
Accumulated depreciation	(2,925,891)	(2,762,711)
Total	6,702,073	6,151,445
Construction work in progress	1,330,975	1,402,561
Total	8,033,048	7,554,006
Investments	50,558	50,011
Cash and cash equivalents – restricted	141,299	406,237
Regulatory assets – other	195,892	176,800
Regulatory asset – pension	229,451	293,212
Regulatory asset – OPEB	199,489	—
Net other postemployment benefit asset	—	318,205
Total noncurrent assets	8,849,737	8,798,471
Current assets:		
Cash and cash equivalents – unrestricted	344,773	317,198
Cash and cash equivalents – restricted	176,450	161,302
Cash collateral received from securities lending transactions	7,650	3,779
Customer and other accounts receivable, net of \$61,328 and \$61,200 allowance for losses for 2018 and 2017, respectively	100,785	81,721
Under recovered costs	131,394	266,231
Accrued unbilled revenue	109,112	96,632
Materials and supplies	26,442	24,053
Prepayments and other current assets	23,552	21,861
Total current assets	920,158	972,777
Total assets	9,769,895	9,771,248
Deferred outflows – debt refunding	24,252	26,335
Deferred outflows – pension	188,361	373,459
Deferred outflows – OPEB	297	—
Deferred outflows – pension contributions made after measurement date	140,957	127,470
Deferred outflows – OPEB contributions made after measurement date	34,017	—
Total deferred outflows	387,884	527,264
Total assets and deferred outflows	\$ 10,157,779	10,298,512

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
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Statements of Net Position

June 30, 2018 and 2017

(Amounts in thousands)

Net Position, Liabilities, and Deferred Inflows	2018	2017
Net position:		
Net investment in capital assets	\$ 2,359,417	2,367,436
Restricted:		
Debt service	71,340	66,005
Other postemployment benefits	—	318,205
Other purposes	30,636	29,171
Unrestricted	<u>556,859</u>	<u>355,367</u>
Total net position	<u>3,018,252</u>	<u>3,136,184</u>
Long-term debt, net of current portion	5,682,566	5,467,914
Other noncurrent liabilities:		
Accrued workers' compensation claims	33,530	32,021
Net pension liability	426,444	698,878
Net OPEB liability	<u>176,148</u>	<u>—</u>
Total other noncurrent liabilities	<u>636,122</u>	<u>730,899</u>
Current liabilities:		
Current portion of long-term debt	103,846	101,251
Accounts payable and accrued expenses	88,450	114,699
Line of credit	—	250,000
Due to Power System	9,846	8,602
Accrued employee expenses	65,839	62,106
Accrued interest	113,069	101,068
Obligations under securities lending transactions	7,650	3,779
Customer deposits	<u>205,474</u>	<u>189,205</u>
Total current liabilities	<u>594,174</u>	<u>830,710</u>
Total liabilities	<u>6,912,862</u>	<u>7,029,523</u>
Deferred inflows – debt refunding	14,115	14,971
Deferred inflows – pension	154,895	117,834
Deferred inflows – OPEB	<u>57,655</u>	<u>—</u>
Total deferred inflows	<u>226,665</u>	<u>132,805</u>
Total net position, liabilities, and deferred inflows	<u>\$ 10,157,779</u>	<u>10,298,512</u>

See accompanying notes to financial statements.

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30, 2018 and 2017

(Amounts in thousands)

	<u>2018</u>	<u>2017</u>
Operating revenues:		
Residential	\$ 509,614	450,384
Multiple-dwelling units	352,123	338,623
Commercial and industrial	254,734	264,690
Other	77,576	78,487
Uncollectible accounts	(3,866)	(13,637)
Total operating revenues	<u>1,190,181</u>	<u>1,118,547</u>
Operating expense:		
Purchased water	184,957	194,699
Maintenance and other operating expenses	500,937	505,910
Depreciation and amortization	165,290	156,809
Total operating expenses	<u>851,184</u>	<u>857,418</u>
Operating income	<u>338,997</u>	<u>261,129</u>
Nonoperating revenues:		
Investment income	5,171	3,262
Federal bond subsidies	17,307	17,252
Gain on sale of land	—	141
Other nonoperating income	8,242	19,513
Total nonoperating revenues	<u>30,720</u>	<u>40,168</u>
Other nonoperating expenses	(5,363)	(5,191)
Nonoperating revenues, net	<u>25,357</u>	<u>34,977</u>
Debt expenses:		
Interest on debt	205,280	194,501
Allowance for funds used during construction	(8,044)	(7,713)
Total debt expenses	<u>197,236</u>	<u>186,788</u>
Income before capital contributions	167,118	109,318
Capital contributions	<u>33,155</u>	<u>31,183</u>
Increase in net position	200,273	140,501
Net position:		
Beginning of year	3,136,184	2,995,683
Cumulative effect of change in accounting for postemployment benefits other than pensions, effective July 1, 2017	(318,205)	—
End of year	<u>\$ 3,018,252</u>	<u>3,136,184</u>

See accompanying notes to financial statements.

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
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Statements of Cash Flows

Years ended June 30, 2018 and 2017

(Amounts in thousands)

	2018	2017
Cash flows from operating activities:		
Cash receipts:		
Cash receipts from customers	\$ 1,318,635	1,147,285
Cash receipts from customers for other agency services	549,443	550,778
Cash receipts from interfund services provided	585,288	489,925
Other cash receipts	27,839	5,250
Cash disbursements:		
Cash payments to employees	(324,057)	(286,551)
Cash payments to suppliers	(259,390)	(298,081)
Cash payments for interfund services used	(775,876)	(664,030)
Cash payments to other agencies for fees collected	(556,203)	(552,364)
Net cash provided by operating activities	565,679	392,212
Cash flows from noncapital financing activities:		
Proceeds from line of credit for operations	—	250,000
Payments on line of credit for operations	(250,000)	(150,000)
Net cash (used in) provided by noncapital financing activities	(250,000)	100,000
Cash flows from capital and related financing activities:		
Additions to plant and equipment	(618,001)	(687,490)
Capital contributions	33,155	31,183
Principal payments and maturities on long-term debt	(55,215)	(43,295)
Proceeds from line of credit for capital	—	142,400
Proceeds from issuance of bonds	273,403	192,437
Proceeds from California State Water Resources Control Board loan	49,687	71,511
Payments of California State Water Resources Control Board loan	(23,088)	(18,096)
Debt interest payments	(219,592)	(206,288)
Federal bond subsidies	17,307	17,252
Net cash used in capital and related financing activities	(542,344)	(500,386)
Cash flows from investing activities:		
Purchases of investment securities	(92,099)	(83,622)
Sales of investment securities	91,486	67,233
Investment income	5,063	3,180
Net cash provided by (used in) investing activities	4,450	(13,209)
Net decrease in cash and cash equivalents	(222,215)	(21,383)
Cash and cash equivalents:		
Cash and cash equivalents at beginning of year	884,737	906,120
Cash and cash equivalents at end of year	\$ 662,522	884,737

**CITY OF LOS ANGELES
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Statements of Cash Flows

Years ended June 30, 2018 and 2017

(Amounts in thousands)

	2018	2017
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	\$ 338,997	261,129
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	165,290	156,809
Provision for losses on customer and other receivables	3,866	13,637
Changes in assets and liabilities:		
Customer and other accounts receivable	(22,756)	(14,733)
Accrued unbilled revenue	(12,480)	(4,384)
Under recovered costs	134,837	(32,501)
Due to Power System	1,244	684
Materials and supplies	(2,389)	(4,269)
Regulatory assets – other	(31,344)	(17,816)
Regulatory assets – OPEB	(199,489)	—
Accounts payable and accrued expenses for operating	(29,405)	(19,282)
Customer deposits	16,269	27,078
Accrued employee expenses	3,733	6,325
Deferred outflow – pensions and OPEB	137,298	(269,993)
Regulatory assets – pensions	63,761	27,269
Net pension liability	(272,434)	325,854
Net OPEB liability	176,148	—
Deferred inflows – pensions and OPEB	94,716	(83,130)
Accrued workers' compensation claims and other	1,509	18,691
Net other postemployment benefit asset	—	2,258
Prepayments and other current assets	(1,692)	(1,414)
Net cash provided by operating activities	\$ 565,679	392,212
Supplemental disclosure of noncash capital and relating financing activities:		
During the year ended June 30, 2017, the Water System issued revenue bonds to finance capital improvements and refund previously issued debt. \$276.8 million of the total proceeds of \$611.90 million, including an \$81.63 million premium, were deposited immediately into an irrevocable trust for the defeasance of \$275.2 million of debt. Additionally, \$142.4 million of the proceeds were remitted directly to Wells Fargo for repayment of the outstanding line of credit. The net gain on refunding, after the write-off of previously recorded unamortized premiums, resulted in \$2.5 million, which will be amortized over the debt repayment period.		
Accounts payable related to capital expenditures	\$ 6,035	2,591

See accompanying notes to financial statements.

**CITY OF LOS ANGELES
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Notes to Financial Statements

June 30, 2018 and 2017

(In thousands)

(1) Summary of Significant Accounting Policies

The City of Los Angeles Department of Water and Power (the Department) exists as a separate proprietary department of the City of Los Angeles (the City) under and by virtue of the City Charter enacted in 1925 and as revised effective July 2000. The Department's Water Revenue Fund (Water System) is responsible for the procurement, quality, and distribution of water for sale in the City. The Water System is operated as an enterprise fund of the City.

(a) Method of Accounting

The accounting records of the Water System are maintained in accordance with U.S. generally accepted accounting principles (GAAP) for governmental entities. The financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting. The Water System is accounted for as an enterprise fund and applies all applicable Governmental Accounting Standards Board (GASB) pronouncements in its accounting and reporting.

The financial statements of the Water System are intended to present the net position, and the changes in net position and cash flows of only that portion of the business-type activities and each major fund of the City that is attributable to the transactions of the Water System. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2018 and 2017, the changes in its financial position or, where applicable, its cash flows for the years then ended, in conformity with GAAP.

The Department's rates are determined by the Board of Water and Power Commissioners (the Board) and are subject to review and approval by the Los Angeles City Council. As a regulated enterprise, the Department follows the regulatory accounting criteria set forth in the GASB Codification (GASB 62), which requires that the effects of the rate-making process be recorded in the financial statements. Such effects primarily concern the time at which revenue and expenses are recorded in net position. Accordingly, the Water System records various regulatory assets and liabilities to reflect the Board's actions by deferring expenses and revenue that are recoverable or payable from rates provided in the water rate ordinance. Regulatory liabilities comprise over recovered costs and deferred inflows and regulatory assets comprise regulatory assets and under recovered costs in the statement of net position. Management believes that the Water System meets the criteria for continued application, and will continue to evaluate its applicability based on changes in the regulatory environment. See note 4.

(b) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

**CITY OF LOS ANGELES
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Notes to Financial Statements

June 30, 2018 and 2017

(In thousands)

(c) Utility Plant

The costs of additions to utility plant and replacements of retired units of property are capitalized. Costs include labor, materials, an allowance for funds used during construction (AFUDC), and allocated indirect charges, such as engineering, supervision, transportation and construction equipment, retirement plan contributions, healthcare costs, and certain administrative and general expenses. The costs of maintenance, repairs, and minor replacements are charged to the appropriate operations and maintenance expense accounts.

(d) Intangibles

The Water System follows GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, which requires that an intangible asset be recognized in the statement of net position only if it is considered identifiable. Additionally, it establishes a specified-conditions approach to recognize intangible assets that are internally generated. Effectively, outlays associated with the development of such assets are not capitalized until certain criteria are met. Outlays incurred prior to meeting these criteria are expensed as incurred. The capitalized amounts are included in general utility plant in the accompanying statements of net position. Intangible assets include land easements, water rights, and computer software and are included in general utility plant on the statement of net position.

(e) Impairment of Long-Lived Assets

The Water System follows GASB Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries* (GASB 42). Governments are required to evaluate prominent events or changes in circumstances affecting capital assets to determine whether impairment of a capital asset has occurred. A capital asset is considered impaired when its service utility has declined significantly and unexpectedly. Under GASB 42, impaired capital assets that will no longer be used by the government should be reported at the lower of carrying value or fair value. Impairment losses on capital assets that will continue to be used by the government should be measured using the method that best reflects the cause of the diminished service utility of the capital asset.

(f) Depreciation and Amortization

Depreciation expense is computed using the straight-line method based on service lives. The Water System uses the composite method of depreciation, and therefore, groups assets into composite groups for purposes of calculating depreciation expense. Estimated service lives range from 5 to 70 years. Amortization expense for computer software is computed using the straight-line method over 5 to 15 years. Depreciation and amortization expense as a percentage of average depreciable utility plant in service was 1.8% for fiscal years ended June 30, 2018 and 2017.

**CITY OF LOS ANGELES
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Notes to Financial Statements

June 30, 2018 and 2017

(In thousands)

(g) Cash and Cash Equivalents

As provided for by the State of California Government Code (the Code), the Water System's cash is deposited with the city treasurer in the City's general investment pool for the purpose of maximizing interest earnings through pooled investment activities. Cash and cash equivalents in the City's general investment pool are reported at fair value on a recurring basis, and changes in unrealized gains and losses are recorded in the statements of revenues, expenses, and changes in net position. Interest earned on such pooled investments is allocated to the participating funds based on each fund's average daily cash balance during the allocation period. The city treasurer invests available funds of the City and its independent operating departments on a combined basis. The Water System classifies all cash and cash equivalents that are restricted either by creditors, the Board, or by law as restricted cash and cash equivalents on the statement of net position. The Water System considers its portion of pooled investments in the City's pool to be cash and cash equivalents and the unspent construction funds as long-term restricted cash and cash equivalents.

At June 30, 2018 and 2017, restricted cash and cash equivalents include the following (amounts in thousands):

	June 30	
	2018	2017
Bond redemption and interest funds	\$ 170,564	155,881
Other restricted funds	5,886	5,421
Cash and cash equivalents – current portion	176,450	161,302
Self-insurance fund	24,750	23,750
Bond redemption funds	13,905	11,256
Construction funds	102,644	371,231
Cash and cash equivalents – noncurrent	141,299	406,237
Total restricted cash and cash equivalents	\$ 317,749	567,539

(h) Customer and Other Accounts Receivable and Allowance for Doubtful Accounts

The Water System's accounts receivables consist of customer and other receivables. The receivables are reported net of allowance for losses. Customer account receivables result from the sale of water to city residents. Other receivables consist of billings to customers, federal, state, and local governments for work performed to improve or enhance water distribution, water sales to other utilities, and other miscellaneous receivables.

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

Notes to Financial Statements

June 30, 2018 and 2017

(In thousands)

Water System's residential customers are billed bimonthly, and customers on monthly billings include commercial, governmental, and industrial. The Water System estimates bad debt expense each year by taking 1% of the accounts receivable balance in the Customer Care and Billing system. In addition to this estimate, the Water System identifies any inactive accounts due to a move out of the service area, and fully reserves for those accounts in their allowance. Finally, the Water System reviews the allowance for doubtful accounts at year-end after adjustments have been made for previously mentioned items and determines if an additional allowance needs to be made based on their aging report.

The Water System records bad debt for its estimated uncollectible accounts related to water customer and noncustomer billings as a reduction in the Water operating revenue.

At June 30, 2018 and 2017, customer and other accounts receivable include the following (amounts in thousands):

	June 30	
	2018	2017
Customer accounts receivable	\$ 146,284	130,807
Allowance for losses	(58,528)	(58,500)
Customer accounts receivable	87,756	72,307
Customer accounts receivable, other	15,829	12,114
Allowance for losses, other	(2,800)	(2,700)
Customer accounts receivable other	13,029	9,414
Total customer accounts receivable	\$ 100,785	81,721

(i) Materials and Supplies

Materials and supplies are recorded at average cost.

(j) Accrued Unbilled Revenue

Accrued unbilled revenue is the receivable for estimated water sales during the period at the appropriate rates for which service has been provided but the customer has not been billed.

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

Notes to Financial Statements

June 30, 2018 and 2017

(In thousands)

(k) Investments

The Water System follows GASB Statement No. 72, *Fair Value Measurement and Application*, which addresses accounting and fair value reporting issues related to fair value measurements by clarifying the definition of fair value, establishing general principles for measuring fair value, providing additional fair value application guidance, and enhancing disclosures about fair value measurements. This statement established a three-level hierarchy of inputs to valuation techniques used to measure fair value. The Water System's investments consist of investments held in the Water Expense Stabilization Fund to stabilize water rates. Such investments include U.S. government and governmental agency securities. Investments are reported at fair value on a recurring basis, and changes in unrealized gains and losses are recorded in the statements of revenue, expenses, and changes in net position. The stated fair value of investments is generally based on published market prices or quotations from major investment dealers. See note 5.

(l) Accrued Employee Expenses

Accrued employee expenses include accrued payroll and an estimated liability for vacation leave, sick leave, and compensatory time, which are accrued when employees earn the rights to the benefits. Below is a schedule of accrued employee expenses as of June 30, 2018 and 2017 (amounts in thousands):

	June 30	
	2018	2017
Type of expense:		
Accrued payroll	\$ 15,160	14,203
Accrued vacation	34,874	32,741
Accrued sick time	6,795	6,449
Compensatory time	9,010	8,713
Total	\$ 65,839	62,106

(m) Debt Expenses

Debt premiums and discounts are capitalized and amortized to debt expense using the effective-interest method over the lives of the related debt issues. Gains and losses on refunding related to bonds redeemed by proceeds from the issuance of new bonds are reported as deferred inflows or outflows of resources and amortized to interest expense using the effective-interest method over the shorter of the life of the new bonds or the remaining term of the bonds refunded. Debt issuance costs are expensed in the year incurred.

(n) Accrued Workers' Compensation Claims

Liabilities for unpaid workers' compensation claims are recorded at their net present value. See note 9.

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM**

Notes to Financial Statements

June 30, 2018 and 2017

(In thousands)

(o) Customer Deposits

Customer deposits represent deposits collected from customers upon opening new accounts. These deposits are obtained when the customer does not have a previously established credit history with the Department. Original deposits plus interest are paid to the customer once a satisfactory payment history is maintained, generally after one to three years.

The Water System is responsible for collection, maintenance, and refunding of these deposits for all Department customers, including those of the Department's Power Revenue Fund (Power System). As such, the Water System's statements of net position include a deposit liability of \$205 million and \$189 million as of June 30, 2018 and 2017, respectively, for all customer deposits collected.

(p) Revenue

The Water System's rates are established by a rate ordinance set by the Board based on its powers and duties established in Section 676 of the City Charter. The Water System sells water to other city departments at rates provided in the ordinance. The Water System recognizes water costs in the period incurred and accrues for estimated water sold but not yet billed.

Revenue consists of billings to customers for water consumption at rates specified in the water rate ordinance. These rates include cost adjustment factors that provide the Water System with full recovery of water supply costs; water quality improvement expenditures and water security costs; base rate revenue based upon established revenue targets published for each major customer class; Owens Valley regulatory costs; lifeline and low-income customer adjustments; water infrastructure costs; and funds maintained to cover costs in the event of unforeseen events impacting water service delivery. Management estimates these costs biannually for a 12-month prospective period to establish the cost recovery component of customer billings, and any difference between billed and actual costs is adjusted in subsequent billings. This difference is reflected as \$131 million and \$266 million of under recovered costs in the accompanying statements of net position as of June 30, 2018 and 2017, respectively.

(q) Current Rate Ordinance

The current water rate ordinance has been in effect since April 15, 2016, and covers a five-year period. The water rates are set for each customer class based upon a completed formal marginal cost of service study, which is common industry practice.

For single-family residential customers, water budgets are utilized to design an expanded four-tier rate structure. The rate structure provides water conservation signals with tier thresholds set based on indoor and outdoor water budgets, which encourage conservation. Tier 1 provides 800 cubic feet for basic indoor water needs. Tier 2 provides water levels for efficient outdoor native landscaping, Tier 3 provide water levels, which represent much less efficient outdoor irrigation and nondrought-tolerant landscaping, and Tier 4 represents excessive water usage. Tiers 2 and 3 allotments also vary based on temperature zone and lot size.

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Single-family residential rates are developed to recover the revenue requirement associated with providing service to this class while recognizing the increasing cost of providing water at higher levels of usage. The major differentiating amounts between tier rates are water supply costs, peak pumping, and storage costs. The Tier 1 rate represents indoor basic needs met by the least expensive sources of water supply; the Tier 2 rate covers efficient outdoor water use and reflects water supplies, which include some expensive sources of water; the Tier 3 rate is for above-average outdoor use, which may require more expensive sources of water supply; and the Tier 4 rate is for excessive use and may include the most costly sources of water supply.

The two-tier structure of the multifamily customer class has been maintained from prior rate ordinances. Multifamily tier thresholds are set based on prior winter usage characteristics for each customer. Water allotments still provide incentives for additional conservation with Tier 1 allotment reductions applied in the second (93%), third (88%), fourth (88%), and fifth (88%) year of the five-year rate action.

The major differentiating amounts between the two-tier structure of multifamily rates are water supply costs, peak pumping, and storage costs. Tier 1 rates reflect water supplies, which include the less expensive sources of water, and the Tier 2 rate includes the higher costs of water supply sources.

The two-tier structure of the commercial and industrial customer class has been maintained from prior rate ordinances. High and Low Season Tier thresholds are also set based on prior winter usage characteristics for each customer. Water budgets still provide incentives for additional conservation with Low Season Tier 1 allotments set at 100% of prior winter usage and the High Season Tier 1 allotment set at 105% of prior winter usage.

Like the multifamily customer class, the major differentiating amounts between the two-tier structure of the commercial and Industrial rates are water supply costs, peak pumping, and storage costs. The Tier 1 rate reflects water supplies, which include the less expensive sources of water and the Tier 2 rate includes the higher costs of water supply sources.

The rates still reflect equity consideration for water-intensive businesses, and other customers having high seasonal variation in their water usage. Fixed monthly service availability charges apply only to private fire service.

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The Water System's rate ordinance contains a Water Supply Cost Adjustment Factor, a Water Quality Improvement Adjustment Factor, a Base Rate Revenue Target Adjustment Factor, an Owens Valley Regulatory Adjustment Factor, a Low-Income Subsidy Adjustment Factor, a Water Infrastructure Adjustment Factor, and a Water Expense Stabilization Factor. These factors are recovered by direct adjustments to customers' bills. The Water Supply Cost Adjustment Factor recovers the cost of Los Angeles Aqueduct water, purchased water, including water purchased from the Metropolitan Water District, groundwater, water conservation, recycled water, and any additional water supply source expenses. The Water Quality Improvement Factor recovers expenditures to equalize water quality throughout the City, to meet state and federal water quality standards, and to provide security for water supply, storage, and conveyance infrastructure and related facilities. The Base Rate Revenue Target Adjustment recovers any shortage in revenue from base rates or credits back any excess collection of revenue from base rates due to variation in water sales from established revenue targets published for each major customer class. The Owens Valley Regulatory Adjustment factor recovers expenditures for the Owens Lake Dust Mitigation Program, the Lower Owens River Project, and the Owens Lake Master Project. The Low-Income Subsidy Adjustment Factor recovers the cost of credits provided to lifeline and low-income customers. The Water Infrastructure Adjustment Factor recovers capital costs associated specifically with infrastructure investments to maintain and improve the reliability of the water distribution system, and the Water Expense Stabilization Factor recovers funds in order to stabilize rates in the event of unforeseen events impacting water service delivery and also the expense for legal and courts costs or any judgment or settlement.

Operating revenue is revenue generally derived from activities that are billable in accordance with the water rate ordinance established by the City of Los Angeles. Other types of revenue are generally considered nonoperating.

(r) Capital Contributions

Capital contributions and other grants received by the Water System are for constructing utility plant and other activities and are recognized when all applicable eligibility requirements, including time requirements, are met.

(s) Allowance for Funds Used during Construction (AFUDC)

An AFUDC charge represents the cost of borrowed funds used for the construction of utility plant. Capitalized AFUDC is included as part of the cost of utility plant and as a reduction of interest expenses. As of June 30, 2018 and 2017, the average AFUDC rates used by the Water System were 3.6% and 3.3%, respectively.

(t) Use of Restricted and Unrestricted Resources

The Water System's policy is to use unrestricted resources prior to restricted resources to meet expenses to the extent that it is prudent from an operational perspective. Once it is not prudent, restricted resources will be utilized to meet intended obligations.

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(u) Pensions

Eligible employees of the Water System are members of the Water and Power Employees' Retirement Plan (the Plan), which is a single employer defined-benefit pension plan. The Water System's policy is to fund all the required actuarially determined contributions; such costs to be funded are determined annually as of July 1 by an actuary utilized by the Plan. The assets of the Plan are accumulated and reported at fair value in a special trust fund of the City and, therefore, are not reported in the accompanying financial statements.

The Water System recognizes a net pension liability, which represents the Water System's proportionate share of the excess of the total pension liability over the fiduciary net position of the pension plan as reflected in the financial statements of the Plan. The net pension liability is measured as of the Water System's prior fiscal year-end. Changes in the net pension liability are recorded, in the period incurred, as pension expense or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change. The changes in net pension liability that are recorded as deferred inflows of resources or deferred outflows of resources (that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience) are amortized over the weighted average remaining service life of all participants in the respective pension plan and are recorded as a component of pension expense beginning with the period in which they are incurred. Projected earnings on pension investments are recognized as a component of pension expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and amortized as a component of pension expense on a closed basis over a five-year period beginning with the period in which the difference occurred. Each subsequent year will incorporate an additional closed basis five-year period of recognition. Contributions made after the measurement date are recorded as deferred outflows and a reduction to the pension regulatory asset.

For purposes of measuring the net pension liability and deferred outflows/inflows or resources relating to pensions and pension expense, information about the fiduciary net position of the Water System's pension plan and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

(v) Other Postemployment Plan Benefits

Eligible employees of the Water System are members of the Water and Power Employees' Retirement Plan, which comprises a single-employer defined-benefit plan and a system of benefits. In addition to pension benefits, retirees can also receive other postemployment benefits (OPEB), mainly, healthcare, and death benefits. The level of benefits is determined based on their years of civil service, age, and which pension tier they belong to.

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The Water System's policy is to fund all the required actuarially determined contributions; such costs to be funded are determined annually as of July 1 by an actuary utilized by the Plan. The assets of the Plan are accumulated and reported at fair value in a special trust fund of the City and, therefore, are not reported in the accompanying financial statements.

Beginning with the year ended June 30, 2018, the Water System recognizes a net OPEB liability, which represents the Water System's proportionate share of the excess of the total OPEB liability over the fiduciary net position of the Plan as reflected in the financial statements of the Plan. The net OPEB liability is measured as of the Water System's prior fiscal year-end. Changes in the net OPEB liability are recorded, in the period incurred, as OPEB expense or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change. The changes in net OPEB liability that are recorded as deferred inflows of resources or deferred outflows of resources (that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience) are amortized over the weighted average remaining service life of all participants in the respective pension plan and are recorded as a component of OPEB expense beginning with the period in which they are incurred. Projected earnings on pension investments are recognized as a component of OPEB expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and amortized as a component of OPEB expense on a closed basis over a five-year period beginning with the period in which the difference occurred. Each subsequent year will incorporate an additional closed basis five-year period of recognition. Contributions made after the measurement date are recorded as deferred outflows and a reduction to the OPEB regulatory asset.

For purposes of measuring the net OPEB liability and deferred outflows/inflows or resources relating to OPEBs and OPEB expense, information about the fiduciary net position of the Water System's Plan and additions to/deductions from the plan's fiduciary net position has been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit's terms.

(w) Reclassifications

Certain reclassifications have been made to 2017 amounts to conform to the 2018 financial statement presentation. Such adjustments relate primarily to the reclassification on the statement of cash flows of debt borrowings and repayments, resulting in a \$150 million increase in cash flows provided from operations, a \$250 million increase in amounts used in capital financing and related activities, and a \$100 million increase in amounts provided by noncapital financing activities. Due to the nature of the reclassifications, management considers such amounts to be immaterial corrections of errors. There was no impact on the previously reported change in net position of the Water System.

(2) Recent Accounting Pronouncements

(a) GASB Statement No. 75

In June 2015, the GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This statement replaces the requirements of

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GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses/expenditures. The Water System adopted the provision of Statement No. 75 beginning fiscal year 2018 as it was not practical to adopt the Statement for the year ended June 30, 2017, as information was not available. Accordingly, the cumulative effect of the impact on net position as of July 1, 2017, is as follows (amounts in thousands):

Effect of change in accounting for postemployment benefits:	
Retiree Healthcare liability, as of July 1, 2017	\$ (204,468)
Death Benefit liability, as of July 1, 2017	(37,542)
Deferred outflows-contributions after the measurement date at July 1, 2017	30,270
Reversal of previously reported OPEB asset	(318,205)
Recognition of regulatory asset related to OPEB at July 1, 2017	<u>211,740</u>
Cumulative effect of change in accounting for OPEB	<u>\$ (318,205)</u>

(b) GASB Statement No. 81

In March 2016, the GASB issued Statement No 81, *Irrevocable Split-Interest Agreements*, effective for the Water System’s fiscal year beginning July 1, 2017. The purpose of this statement is to improve accounting and financial reporting by establishing recognition and measurement requirements for irrevocable split interest agreements. The Water System adopted this statement in the current year and there was no impact on the financial statements.

(c) GASB Statement No. 82

In March 2016, the GASB issued Statement No. 82, *Pension Issues—an amendment of GASB Statements No. 67, No. 68, and No. 73 (GASB Statement No. 82)*. The objective of this statement is to address certain issues that have been raised with respect to Statement No. 67, *Financial Reporting for Pension Plans*; and Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. Specifically, this statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an actuarial standard of practice for financial reporting purposes, and (3) the classification of payments by employers to satisfy employee (plan member) contribution requirements. The Water System implemented this statement in the current year and there was no impact on the financial statements.

(d) GASB Statement No. 83

In November 2016, the GASB issued Statement No. 83, *Accounting and Financial Reporting for 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

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the retirement of a tangible 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 of this statement. This statement is effective for the Water System for the year ended June 30, 2019. The Water System is currently evaluating the effect this statement will have on the financial statements.

(e) GASB Statement No. 84

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*, effective for the Water System's fiscal year beginning July 1, 2019. The purpose of this statement is to enhance consistency in reporting by identifying fiduciary activities and how they should be reported. Management is still evaluating the impact of GASB Statement No. 84 on the Water System's financial statements.

(f) GASB Statement No. 85

In March 2017, the GASB issued Statement No. 85, *Omnibus 2017*, effective for the Water System's fiscal year beginning July 1, 2017. The purpose of this statement is to enhance consistency in accounting and financial reporting in a variety of areas including but not limited to component unit blending, fair value measurement and application, OPEB, real estate held, and money market investments. Adoption of this standard did not result in material adjustments to the financial statements.

(g) GASB Statement No. 86

In May 2017, the GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*, effective for the Water System's fiscal year beginning July 1, 2017. The purpose of this statement is to enhance consistency in accounting and financial reporting by providing guidelines for defeasance of debt. The Water System adopted this statement in the current year and there was no impact on its financial statements as of and for the years ended June 30, 2018 and 2017.

(h) GASB Statement No. 87

In June 2017, the GASB issued Statement No. 87, *Leases*, effective for the Water System's fiscal year beginning July 1, 2020. The purpose of this statement is to enhance consistency in accounting and financial reporting by providing a methodology for identifying and reporting lease arrangements and obligations. Management is currently evaluating the impact of GASB Statement No. 87 on the Water System's financial statements.

(i) GASB Statement No. 88

In March 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placement*, effective for the Water System's fiscal year beginning after July 1, 2019. The purpose of this statement is to improve the information that is disclosed in the notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. Management is currently evaluating the impact that this standard will have on the Water System's financial statements.

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(j) GASB Statement No. 89

In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, effective for the Water System's fiscal year beginning July 1, 2020. The objectives of this statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing and (2) to simplify accounting for interest cost incurred before the end of a construction period. Management is currently evaluating the impact that this standard will have on the Water System's financial statements.

(3) Utility Plant

The Water System had the following activity in utility plant during fiscal year 2018 (amounts in thousands):

	<u>Balance, June 30, 2017</u>	<u>Additions</u>	<u>Retirements and disposals</u>	<u>Transfers</u>	<u>Balance, June 30, 2018</u>
Nondepreciable utility plant:					
Land and land rights	\$ 171,766	655	—	—	172,421
Construction work in progress	1,402,561	424,134	—	(495,720)	1,330,975
Total					
nondepreciable utility plant	<u>1,574,327</u>	<u>424,789</u>	<u>—</u>	<u>(495,720)</u>	<u>1,503,396</u>
Depreciable utility plant:					
Source of water supply	1,860,698	26,705	—	335,443	2,222,846
Pumping	288,486	6,483	—	3	294,972
Purification	809,401	7,512	—	9,253	826,166
Distribution	5,039,748	146,792	(336)	148,592	5,334,796
General	744,057	39,682	(9,405)	2,429	776,763
Total depreciable utility plant	<u>8,742,390</u>	<u>227,174</u>	<u>(9,741)</u>	<u>495,720</u>	<u>9,455,543</u>
Accumulated depreciation:					
Source of water supply	(399,480)	(38,635)	—	—	(438,115)
Pumping	(134,155)	(5,388)	—	—	(139,543)
Purification	(227,724)	(13,835)	—	—	(241,559)
Distribution	(1,620,105)	(77,525)	336	—	(1,697,294)
General	(381,247)	(28,133)	—	—	(409,380)
Total accumulated depreciation	<u>(2,762,711)</u>	<u>(163,516)</u>	<u>336</u>	<u>—</u>	<u>(2,925,891)</u>
Total utility plant, net	<u>\$ 7,554,006</u>	<u>488,447</u>	<u>(9,405)</u>	<u>—</u>	<u>8,033,048</u>

Depreciation and amortization expense during fiscal year 2018 was \$165.3 million.

Land and land rights are included in the balance sheet as utility plant assets in their functional category.

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The Water System had the following activity in utility plant during fiscal year 2017 (amounts in thousands):

	Balance, June 30, 2016	Additions	Retirements and disposals	Transfers	Balance, June 30, 2017
Nondepreciable utility plant:	\$				
Land and land rights	171,776	—	(10)	—	171,766
Construction work in progress	1,061,382	480,113	—	(138,934)	1,402,561
Total nondepreciable utility plant	<u>1,233,158</u>	<u>480,113</u>	<u>(10)</u>	<u>(138,934)</u>	<u>1,574,327</u>
Depreciable utility plant:					
Source of water supply	1,825,568	30,774	—	4,356	1,860,698
Pumping	282,411	5,423	—	652	288,486
Purification	795,616	12,995	—	790	809,401
Distribution	4,785,749	131,216	(493)	123,276	5,039,748
General	704,480	44,361	(14,644)	9,860	744,057
Total depreciable utility plant	<u>8,393,824</u>	<u>224,769</u>	<u>(15,137)</u>	<u>138,934</u>	<u>8,742,390</u>
Accumulated depreciation:					
Source of water supply	(363,323)	(36,157)	—	—	(399,480)
Pumping	(128,902)	(5,253)	—	—	(134,155)
Purification	(214,029)	(13,695)	—	—	(227,724)
Distribution	(1,547,172)	(73,426)	493	—	(1,620,105)
General	(360,535)	(25,631)	4,919	—	(381,247)
Total accumulated depreciation	<u>(2,613,961)</u>	<u>(154,162)</u>	<u>5,412</u>	<u>—</u>	<u>(2,762,711)</u>
Total utility plant, net	<u>\$ 7,013,021</u>	<u>550,720</u>	<u>(9,735)</u>	<u>—</u>	<u>7,554,006</u>

Depreciation and amortization expense during fiscal year 2017 was \$156.8 million.

Land and land rights are included in the balance sheet as utility plant assets in their functional category.

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(4) Regulatory Assets

Regulatory assets are created by the actions of the Board of Water and Power Commissions by deferring certain expenses that are recoverable by future rate charges in accordance with the current rate ordinances, so as to more evenly match the recognition of revenue and expenses with the water rates charged to retail customers.

Below is a summary of the Water System's regulatory assets:

Description	June 30, 2017	Additions	Reductions	June 30, 2018
Assets:				
(a) Regulatory assets – water conservation rebates	\$ 113,498	13,005	(10,128)	116,375
(b) Regulatory assets – stormwater capture program	35,489	—	(941)	34,548
(c) Regulatory assets – customer care and billing system	27,813	18,495	(1,339)	44,969
Regulatory assets – other	176,800	31,500	(12,408)	195,892
(d) Regulatory assets – Pension	293,212	—	(63,761)	229,451
(e) Regulatory assets – OPEB	—	211,740	(12,251)	199,489
(f) Under recovered costs	266,231	131,394	(266,231)	131,394
Total	\$ 736,243	374,634	(354,651)	756,226

Description	June 30, 2016	Additions	Reductions	June 30, 2017
Assets:				
(a) Regulatory assets – water conservation rebates	\$ 105,525	17,231	(9,258)	113,498
(b) Regulatory assets – stormwater capture program	37,143	—	(1,654)	35,489
(c) Regulatory assets – customer care and billing system	16,316	12,743	(1,246)	27,813
Regulatory assets – other	158,984	29,974	(12,158)	176,800
(d) Regulatory assets – Pension	320,481	—	(27,269)	293,212
(f) Under recovered costs	233,730	266,231	(233,730)	266,231
Total	\$ 713,195	296,205	(273,157)	736,243

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(a) Regulatory Assets – Water Conservation Rebates

Water conservation is an integral part of the water resources management efforts and is a key element of maintaining a sustainable supply of water for the City. The Water System provides customers with 26 water conservation programs that are designed to reduce indoor and outdoor water usage. Initially the programs included low-flow showerheads and incentives to customers who purchase the high-efficiency toilets and high-efficiency clothes washing machines in an effort to reduce water use. In 2015, the program was expanded to include outdoor water savings through a turf reduction program to encourage replacing water-guzzling grass with low-water use shrubs and permeable walkways.

As provided in the Water System's rate structure, beginning June 2011, customers' bills include a charge, related to water conservation program payments to be collected over the useful life of the program, which ranges from 5 to 20 years. As rates are established at a level sufficient to recover all such costs, the Water System recorded as a regulatory asset.

(b) Regulatory Assets – Watershed Management Stormwater Capture Program

The goal of the Stormwater Capture Program is to capture stormwater for recharging the basin with water that would otherwise run off to the ocean and, thus, be lost as a usable source to customers. Regulatory assets related to the Watershed Management Programs include investing in dams, reservoirs, and spreading grounds owned by other agencies, but the water collected benefits Water System customers.

As provided in the Water System's rate structure, beginning August 2013, customers' bills include a charge, related to payments made related to the Stormwater Capture Program to be collected over a period of at least 30 years. As rates are established at a level sufficient to recover all such costs, the Water System recorded these costs as a regulatory asset.

(c) Regulatory Assets – Customer Care and Billing System

In 2016, the Board approved using regulatory accounting for certain Customer Care and Billing system (CC&B) settlement costs for remediation efforts. These costs will be accumulated as regulatory assets to be recovered at a future date as approved by the Board. Also, in 2013, as part of the Water System's implementation of CC&B significant investments in the training of the Water System's employees were capitalized as a regulatory asset.

As provided in the Water System's rate structure, beginning January 2014, customers' bills include a charge to be collected over a 10-year period for the training costs. As rates are established at a level sufficient to recover such training costs, the Water System recorded a regulatory asset.

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(d) Regulatory Assets – Pension

In connection with the recognition of the net pension liability under GASB Statement No. 68 *Accounting and Financial Reporting for Pensions*, an amendment of GASB Statement No. 27, the Water System established a regulatory asset in the amount of \$745,447 equal to the net pension liability reported at July 1, 2013. The pension regulatory asset is expected to be amortized over a period not to exceed 15 years. Amortization of the regulatory asset is the difference between actuarially determined contributions and actual pension expense. Amortization of the regulatory asset is the difference between actuarially determined contributions and actual pension expense and totaled \$63,761 and \$27,269 for the years ended June 30, 2018 and 2017, respectively.

(e) Regulatory Assets – OPEB

In connection with the recognition of the net OPEB liability under GASB Statement No. 75, the Water System established a regulatory asset in the amount of \$211,740 equal to the net OPEB liability reported at July 1, 2017. The OPEB regulatory asset is expected to be amortized over a period not to exceed 15 years. Amortization of the regulatory asset is the difference between amounts paid toward actuarial determined contributions and actual OPEB expense, which totaled \$12,251 for the year ended June 30, 2018.

(f) Regulatory Assets – Under Recovered Costs

As provided in the Water System Rate Ordinance, the Water System is required to maintain balancing accounts to record differences between specific costs incurred and amounts billed through rates to recover those costs. Under recovered costs are shown as a current asset on the statements of net position and represents the balance in the balancing accounts when the amount billed through rates is less than the costs the Water System has incurred.

(5) Cash, Cash Equivalents, and Investments

(a) Investments

A summary of the Water System's investments is as follows (amounts in thousands):

Description	June 30	
	2018	2017
Water Expense Stabilization Fund	\$ 50,558	50,011

All investments are to be used for a designated purpose as follows:

(i) Water Expense Stabilization Fund

The Water Expense Stabilization Fund was established under the Master Bond Resolution and can be withdrawn upon and applied to any lawful purpose in connection with the Water System.

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As of June 30, 2018, the Water System's investments and their maturities are as follows (amounts in thousands):

Type of investments	Fair value	Investment maturities			
		1 to 30 days	31 to 60 days	61 to 365 days	366 days to 5 years
U.S. government securities \$	1,994	—	—	1,994	—
U.S. government agencies	21,347	999	999	14,414	4,935
Supranationals	999	—	999	—	—
Medium-term corporate notes	12,413	—	—	7,963	4,450
Commercial paper	1,995	1,000	—	995	—
Negotiable CDs	6,617	—	—	6,617	—
California state bonds	1,994	—	—	1,994	—
California local agency bonds	2,188	154	1,334	700	—
Other state bonds	996	—	—	996	—
Money Market Fund	15	15	—	—	—
	<u>\$ 50,558</u>	<u>2,168</u>	<u>3,332</u>	<u>35,673</u>	<u>9,385</u>

As of June 30, 2017, the Water System's investments and their maturities are as follows (amounts in thousands):

Type of investments	Fair value	Investment maturities			
		1 to 30 days	31 to 60 days	61 to 365 days	366 days to 5 years
U.S. government securities \$	998	—	—	998	—
U.S. government agencies	19,078	—	—	11,121	7,957
Supranationals	1,001	—	1,001	—	—
Medium-term corporate notes	12,011	—	—	10,514	1,497
Commercial paper	4,990	2,998	—	1,992	—
Negotiable CDs	7,002	2,000	1,000	4,002	—
California state bonds	998	—	—	—	998
California local agency bonds	1,833	—	1,500	—	333
Other state bonds	2,100	1,100	1,000	—	—
	<u>\$ 50,011</u>	<u>6,098</u>	<u>4,501</u>	<u>28,627</u>	<u>10,785</u>

(ii) *Interest Rate Risk*

The Water System's investment policy limits the maturity of its investments to a maximum of 30 years for U.S. government agency securities; 5 years for supranational securities; medium-term

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corporate notes, municipal bonds, and state bonds; 270 days for commercial paper; and 397 days for negotiable certificates of deposit.

(iii) Credit Risk

Under its investment policy and the Code, the Water System is subject to the prudent investor standard of care in managing all aspects of its portfolios. The prudent investor standard requires that the Department “shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency.”

The U.S. government agency securities in the portfolio consist of securities issued by government-sponsored enterprises, which are not explicitly guaranteed by the U.S. government. As of June 30, 2018 and 2017, the U.S. government agency securities in the portfolio were rated with either the highest or second highest possible credit ratings by each of the Nationally Recognized Statistical Rating Organizations (NRSROs) that rated them.

The Water System’s investment policy specifies that supranational notes must be rated “AA” or its equivalent or better by an NRSRO upon purchase. As of June 30, 2018 and 2017, the Water System’s investment in a supranational note was rated with the highest possible credit ratings by each of the NRSROs that rated it.

The Water System’s investment policy specifies that medium-term corporate notes must be rated in a rating category of “A” or its equivalent or better by an NRSRO upon purchase. Of the Water System’s investments in corporate notes as of June 30, 2018, \$988,398 (8%) was rated in the category of AAA, \$4,006,968 (32%) was rated in the category of AA, and \$7,417,314 (60%) was rated in the category of A by at least one NRSRO. Of the Water System’s investments in corporate notes as of June 30, 2017, \$2,047,133 (17%) was rated in the category of AAA, \$5,389,240 (45%) was rated in the category of AA, and \$4,574,659 (38%) was rated in the category of A by at least one NRSRO.

The Water System’s investment policy specifies that commercial paper must be of the highest ranking or of the highest letter and number rating as provided for by at least two NRSROs. As of June 30, 2018 and June 30, 2017, all of the Water System’s investments in commercial paper were rated with at least the highest letter and number rating as provided by at least two NRSROs.

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The Water System's investment policy specifies that municipal obligations, issued by California local agencies must be rated in a rating category of "A" or its equivalent or better by an NRSRO. Of the Water System's investments in municipal bonds as of June 30, 2018, \$2,034,325 (93%) was rated in the category of AA and \$153,995 (7%) was rated in a rating category of A or the equivalent short term rating or better by at least one NRSRO. Of the Water System's investments in municipal bonds as of June 30, 2017, \$1,332,693 (73%) was rated in the category of AA and \$499,935 (27%) was rated in a rating category of A by at least one NRSRO.

The Water System's investment policy specifies that negotiable certificates of deposit must be of the highest ranking or letter and number rating as provided for by at least two NRSROs. As of June 30, 2018 and June 30, 2017, all of the Water System's investments in negotiable certificates of deposit were rated with at least the highest letter and number rating as provided by at least two NRSROs.

The Water System's investment policy specifies that State of California obligations must be rated in a rating category of "A" or its equivalent or better by an NRSRO. As of June 30, 2018 and June 30, 2017, all of the Water System's investments in State of California Obligations were rated in the rating category of AA by at least one NRSRO.

The Water System's Investment Policy specifies that obligations of other states in addition to California must be rated in a rating category of "A" or its equivalent or better by an NRSRO. As of June 30, 2018, 100% of the Water System's investments in obligations of states other than California were rated in the rating category of A or equivalent or better by at least one NRSRO. As of June 30, 2017, 100% of the Water System's investments in obligations of states other than California were rated in the rating category of A or equivalent or better by at least one NRSRO.

The Water System's investment policy specifies that money market funds may be purchased as allowed under the Code, which requires that the fund must have either (1) attained the highest ranking or highest letter and numerical rating provided by not less than two NRSROs or (2) retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission with not less than five years' experience managing money market mutual funds with assets under management in excess of \$500 million. As of June 30, 2018 and June 30, 2017, the money market funds in the portfolio had attained the highest possible ratings by at least two NRSROs.

(iv) Concentration of Credit Risk

The Water System's investment policy specifies that there is no percentage limitation on the amount that can be invested in U.S. government agency securities, except that a maximum of 30% of the cost value of the portfolio may be invested in the securities of any single U.S. government agency issuer.

Of the Water System's total investments as of June 30, 2018, \$10,449,434 (21%) was invested in securities issued by the Federal Home Loan Bank; \$6,931,157 (14%) was invested in securities

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issued by the Federal Home Loan Mortgage Corporation; and \$3,965,627 (8%) was invested in securities issued by the Federal National Mortgage Association.

Of the Water System's total investments as of June 30, 2017, \$8,123,074 (16%) was invested in securities issued by the Federal Home Loan Bank; \$5,969,457 (12%) was invested in securities issued by the Federal Home Loan Mortgage Corporation; and \$4,981,588 (10%) was invested in securities issued by the Federal National Mortgage Association.

(v) *Custodial Risk*

All investments are held in the Water System's name, and therefore, they do not have custodial risk.

(vi) *Fair Value Measurements*

The Water System holds investments that are measured at fair value on a recurring basis. Because investing is not a core part of the Department's mission, the Water System determines that the disclosures related to these investments only need to be disaggregated by major type. The Department chooses a tabular format for disclosing the levels within the fair value hierarchy. The Department categorizes its fair value measurements within the fair value hierarchy established by GAAP.

The hierarchy is based on the valuation inputs used to measure the fair value of the asset, as follows:

Level 1 inputs are quoted prices for identical assets or liabilities in an active market.

Level 2 inputs are quoted prices of similar assets or liabilities in active or not active markets.

Level 3 are unobservable inputs using the best information available to management.

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	<u>Fair value using</u>				<u>Not classified</u>
	<u>June 30, 2018</u>	<u>Quoted prices in active markets for identical assets (Level 1)</u>	<u>Significant other observable inputs (Level 2)</u>	<u>Significant unobservable inputs (Level 3)</u>	
Investments by fair value level:					
Debt securities:					
U.S. government securities	\$ 1,994	1,994	—	—	—
U.S. government agencies	21,347	—	21,347	—	—
Supranationals	999	—	999	—	—
Medium-term corporate notes	12,413	—	12,413	—	—
California state bonds	1,994	—	1,994	—	—
California local agency	2,188	—	2,188	—	—
Other state bonds	996	—	996	—	—
Total debt securities	<u>41,931</u>	<u>1,994</u>	<u>39,937</u>	<u>—</u>	<u>—</u>
Other:					
Commercial paper	1,995	—	1,995	—	—
Certificate of deposit	6,617	—	6,617	—	—
Money market funds	15	—	—	—	15
Total other	<u>8,627</u>	<u>—</u>	<u>8,612</u>	<u>—</u>	<u>15</u>
Total investments	<u>\$ 50,558</u>	<u>1,994</u>	<u>48,549</u>	<u>—</u>	<u>15</u>

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	Fair value using				Not classified
	June 30, 2017	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Investments by fair value level:					
Debt securities:					
U.S. government securities	\$ 998	998	—	—	—
U.S. government agencies	19,077	—	19,077	—	—
Supranationals	1,001	—	1,001	—	—
Medium-term corporate notes	12,011	—	12,011	—	—
California state bonds	998	—	998	—	—
California local agency	1,833	—	1,833	—	—
Other state bonds	2,099	—	2,099	—	—
Total debt securities	<u>38,017</u>	<u>998</u>	<u>37,019</u>	<u>—</u>	<u>—</u>
Other:					
Commercial paper	4,991	—	4,991	—	—
Certificate of deposit	7,003	—	7,003	—	—
Total other	<u>11,994</u>	<u>—</u>	<u>11,994</u>	<u>—</u>	<u>—</u>
Total investments	<u>\$ 50,011</u>	<u>998</u>	<u>49,013</u>	<u>—</u>	<u>—</u>

Debt and other securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for identical securities. Debt securities classified as Level 2 of the fair value hierarchy are valued using a multidimensional relationship model or matrix pricing model utilizing market data, including, but not limited to, benchmark yields, reported trades, and broker dealer quotes. Money market funds with maturity dates of one year or less from the balance sheet are recorded at amortized cost and not required to be categorized.

(b) Pooled Cash

The Water System's cash, cash equivalents, and its collateral value of the City's securities lending program (SLP) are included within the City Treasury's general and special investment pool (the Pool). As of June 30, 2018 and 2017, the Water System's share of the City's general and special investment pool was \$670,172 and \$888,516 respectively, which represents approximately 6.9% and 8.7% of the Pool, respectively. Amounts pooled in the City Treasury's general and special investment pool are not required to be classified in the fair value hierarchy per GASB Statement No. 72 since they are part of an internal investment pool.

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Pooled cash is recorded as follows on the statements of net position and statements of cash flows (in thousands):

	As of June 30,	
	2018	2017
Cash and cash equivalents – unrestricted	\$ 344,773	317,198
Cash and cash equivalents – restricted	176,450	161,302
Cash and cash equivalents – restricted noncurrent	141,299	406,237
Subtotal cash and cash equivalents per cash flow	662,522	884,737
Cash – securities lending transactions	7,650	3,779
	\$ 670,172	888,516

The cash balances of substantially all funds on deposit in the City Treasury are pooled and invested by the city treasurer for the purpose of maximizing interest earnings through pooled investment activities but safety and liquidity still take precedence over return. Special pool participants include the City, airports, DWP, harbor, sanitation, and the Municipal Improvement Corporation of Los Angeles (MICLA). Interest earned on pooled investments is allocated to and recorded in certain participating funds, as authorized by the Council and permitted by the City Charter and the Code, based on each fund's average daily deposit balance. Unless allocation provisions are specifically stipulated in city ordinance, Council action, or funding source, interest earned on certain funds is allocated to and recorded in the general fund. The City measures and categorizes its investments using fair value measurement guidelines established by GAAP and GASB Statement No. 72.

Pursuant to California Government Code Section 53607 (State Code) and the Council File No. 94-2160, the City Treasury shall render to the Council a statement of investment policy (the Policy) annually. Council File No. 11-1740 was adopted on December 12, 2016, as the City's investment policy. This Policy shall remain in effect until the Council and the mayor approve a subsequent revision. The Policy governs the City's pooled investment practices. The Policy addresses soundness of financial institutions in which the City Treasurer will deposit funds and types of investment instruments permitted by State Code Sections 53600-53638, 16340, and 16429.1. The City Treasury further reports that the current policy allows for the purchase of investments with maturities up to thirty (30) years.

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At June 30, 2018, the investments held in the City Treasury's general and special investment pool programs and their maturities are as follows (in thousands):

Type of investments	Amount	Investment maturities				
		1 to 30 days	31 to 60 days	61 to 365 days	366 days to 5 years	Over 5 years
U.S. Treasury bills	\$ 48,872	7,765	41,107	—	—	—
U.S. Treasury notes	5,749,557	—	—	878,442	4,857,135	13,980
U.S. agencies securities	806,638	181,205	57,937	92,173	427,013	48,310
Medium-term notes	1,424,599	10,002	—	186,343	1,228,254	—
Mutual funds	4,787	4,787	—	—	—	—
Commercial paper	813,424	632,859	50,950	129,615	—	—
Municipal bonds	78,274	—	—	19,973	58,301	—
Asset-backed securities	113,973	—	—	—	113,973	—
Supranational obligations	298,584	156,606	—	—	141,978	—
Short-term investment funds	177,796	177,796	—	—	—	—
Securities lending short-term repurchase agreement	163,710	163,710	—	—	—	—
Total general and special pools	\$ 9,680,214	1,334,730	149,994	1,306,546	6,826,654	62,290

Interest Rate Risk. The Policy limits the maturity of its investments to 5 years for U.S. Treasury and U.S. agency obligations, medium-term notes, certificate of deposit placement service, negotiable certificates of deposit, collateralized bank deposits, mortgage pass-through securities, supranational obligations, and bank/time deposits; 1 year for repurchase agreements; 270 days for commercial paper; 180 days for bankers' acceptances; 92 days for reverse repurchase agreements; and no maturity for mutual funds. The Policy also allows city funds with longer-term investments horizons to be invested in securities that, at the time of the investment, have a term remaining to maturity in excess of 5 years but with a maximum final maturity of 30 years.

Credit Risk. The Policy establishes minimum credit rating requirements for investments. There are no credit quality requirements for local agency bonds, U.S. Treasury obligations, State of California obligations, California Local Agency obligations, and U.S. agency (U.S. government-sponsored enterprises) securities. The City's \$806.6 million investments in U.S. government-sponsored enterprises consist of securities issued by the Federal Home Loan Bank - \$227.8 million, Federal National Mortgage Association (Fannie Mae) - \$403.7 million, and Federal Home Loan Mortgage Corporation (Freddie Mac) - \$175.1 million. Of the City's \$806.6 million investments in U.S. agency securities, \$546.1 million were rated AA+ by S&P and Aaa by Moody's; \$260.5 million were not rated individually by S&P nor Moody's.

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Medium-term notes must be issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States. Medium-term notes must have at least an A rating at the time of purchase. The City's \$1.4 billion investments in medium-term notes consist of securities issued by banks and corporations that comply with these requirements and were rated A or better by S&P and A3 or better by Moody's. One issuer of \$20.0 million medium-term notes was downgraded to A- by S&P and Baa1 by Moody's.

Commercial paper issues must have the highest letter and number rating by nationally recognized statistical rating organization (NRSRO). The issuing corporation must be organized and operating within the United States and have assets in excess of \$500.0 million. The City's \$813.4 million investments in commercial paper were rated A-1+/A-1 by S&P and P-1 by Moody's.

Mutual funds must receive the highest ranking by at least two NRSROs. The City's \$4.8 million investments in mutual funds were rated AA_m by S&P and not rated by Moody's.

Municipal bonds have no minimum rating requirement. The City's \$78.3 million investments in municipal bonds were rated AA- by S&P and Aa3 by Moody's in supranational obligations must have a minimum of AA rating.

The City's investments in supranational coupons of \$142.0 million were rated AAA by S&P and Aaa by Moody's; \$156.6 million were not rated individually by S&P nor Moody's.

Concentration of credit risk. The Policy does not allow more than 40% of its investment portfolio to be invested in commercial paper or bankers' acceptances, 30% in certificates of deposit or medium-term notes, or 20% in mutual funds, money market mutual funds, or mortgage pass-through securities. The Policy further provides for a maximum concentration limit of 10% in any one issuer, including its related entities. There is no percentage limitation on the amounts that can be invested in U.S. Treasury and U.S. agency obligations. The City's pooled investments comply with these requirements. GAAP requires disclosure of certain investments in any one issuer that represent 5% or more of total investments. Of the City's total pooled investments, no one issuer represents 5% or more of the total investments as of June 30, 2018.

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At June 30, 2017, the investments held in the City Treasury's general and special investment pool programs and their maturities are as follows (in thousands):

Type of investments	Amount	Investment maturities			
		1 to 30 days	31 to 60 days	61 to 365 days	366 days to 5 years
U.S. Treasury notes	\$ 4,784,091	—	—	2,812	4,761,266
U.S. agencies securities	1,468,181	182,345	220,935	560,889	469,324
Medium-term notes	1,440,354	—	—	190,051	1,250,303
Mutual fund	7,251	7,251	—	—	—
Commercial paper	1,418,930	732,478	238,464	447,989	—
Municipal bonds	79,684	—	—	—	79,683
Asset-backed securities	70,100	—	—	—	70,100
Supranational obligations	650,957	454,777	15,000	31,755	149,425
Short-term investment funds	284,148	284,148	—	—	—
Securities lending short-term repurchase agreement	67,115	67,115	—	—	—
Total general and special pools	<u>\$ 10,270,811</u>	<u>1,728,114</u>	<u>474,399</u>	<u>1,233,496</u>	<u>6,780,101</u>

Interest rate risk. The Policy limits the maturity of its investments to 5 years for the U.S. Treasury and U.S. agency obligations, medium-term notes, CD placement service, negotiable certificates of deposit, collateralized bank deposits, mortgage pass-through securities, supranational obligations, and bank/time deposits; 1 year for repurchase agreements; 270 days for commercial paper; 180 days for bankers' acceptances; 92 days for reverse repurchase agreements; and no maturity for mutual funds. The Policy also allows city funds with longer-term investments horizons to be invested in securities that, at the time of the investment, have a term remaining to maturity in excess of 5 years but with a maximum final maturity of 30 years.

Credit risk. The Policy establishes minimum credit rating requirements for investments. There are no credit quality requirements for local agency bonds, U.S. Treasury obligations, State of California obligations, California local agency obligations, and U.S. agency (U.S. government-sponsored enterprises) securities. The City's \$1.5 billion investments in U.S. government-sponsored enterprises consist of securities issued by the Federal Home Loan Bank – \$758.2 million, Federal National Mortgage Association (Fannie Mae) – \$354.5 million, Federal Home Loan Mortgage Corporation (Freddie Mac) – \$240.1 million, Federal Agriculture Mortgage Corporation (Farmer Mac) – \$95.2 million, and Tennessee Valley Authority – \$20.1 million. Of the City's \$1.5 billion investments in U.S. agency securities, \$499.1 million were rated AA+ by S&P and Aaa by Moody's; \$969.0 million were not rated individually by S&P nor Moody's.

Medium-term notes must be issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United

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States. Medium-term notes must have at least an A rating at the time of purchase. The City's \$1.4 billion investments in medium-term notes consist of securities issued by banks and corporations that comply with these requirements and were rated A or better by S&P and A3 or better by Moody's. Subsequent to purchase, two issuers of \$62.6 million medium-term notes were downgraded to BBB+ by S&P and A3 by Moody's, and one issuer of \$20.0 million medium-term notes was downgraded to A by S&P and Baa1 by Moody's.

Commercial paper issues must have the highest letter and number rating by an NRSRO. The issuing corporation must be organized and operating within the United States and have assets in excess of \$500.0 million. The City's \$1.4 billion investments in commercial paper were rated A-1+/A-1 by S&P and P-1 by Moody's.

Mutual funds must receive the highest ranking by at least two NRSRO. The City's \$7.3 million investments in mutual fund were rated AAAm by S&P and not rated by Moody's.

Municipal bonds have no minimum rating requirement. The City's \$79.7 million investments in municipal bonds were rated AA- by S&P and Aa3 by Moody's.

Investments in supranational coupons must have a minimum of AA rating. The City's investments in supranational coupons of \$149.4 million were rated AAA by S&P and Aaa by Moody's; \$501.5 million were not rated individually by S&P nor Moody's.

Concentration of credit risk. The Policy does not allow more than 40% of its investment portfolio to be invested in commercial paper or bankers' acceptances, 30% in certificates of deposit or medium-term notes, or 20% in mutual funds, money market mutual funds, or mortgage pass-through securities. The Policy further provides for a maximum concentration limit of 10% in any one issuer, including its related entities. There is no percentage limitation on the amounts that can be invested in U.S. Treasury and U.S. agency obligations. The City's pooled investments comply with these requirements. GAAP requires disclosure of certain investments in any one issuer that represents 5% or more of total investments. Of the City's total pooled investments as of June 30, 2017, \$693.8 million (6.8%) was invested in securities issued by Federal Home Loan Bank.

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The following table identifies the investment types that are authorized by the Policy as of June 30, 2018 and 2017:

<u>Authorized Investment Type</u>	<u>Maximum Maturity^A</u>	<u>Maximum Specified Percentage of Portfolio^B</u>	<u>Minimum Credit Quality Requirements</u>
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years*	None	None
State Obligations – CA and Others	5 years	None	None
CA Local Agency Obligations	5 years	None	None
U.S. Agency Obligations	5 years*	None	None
Bankers' Acceptances	180 days	40%* ^C	None
Commercial Paper – Pooled Funds* ^G	270 days	40% of the agency's money ^E	Highest letter and number rating by an NRSRO ^F
Commercial Paper – Non-Pooled Funds* ^D	270 days	25% of the agency's money ^E	Highest letter and number rating by an NRSRO ^F
Negotiable Certificates of Deposits	5 years	30% ^H (combined with placement service CD)	None
Non-Negotiable Certificates of Deposits	5 years	None	None
Placement Service Deposits	5 years	30% ^I (inclusive of placement service CD)	None
Placement Service Certificate of Deposits	5 years	30% ^I (combined with negotiable CD)	None
Repurchase Agreements	1 year	None	None
Reverse Repurchase Agreements and Securities Lending Agreements	92 days ^J	20% of the base value of the portfolio	None ^K
Medium-Term Notes* ^L	5 years	30%	"A" rating category or its equivalent or better
Mutual Funds and Money Market Mutual Funds	N/A	20%	Multiple ^{N,O}
Collateralized Bank Deposits	5 years	None	None
Mortgage Pass-Through Securities	5 years	20%	"AA" rating category or its equivalent or better
County Pooled Investments Funds	N/A	None	None
Joint Powers Authority Pool	N/A	None	Multiple ^Q
Local Agency Investment Fund (LAIF)	N/A	None	None
Voluntary Investment Program Fund ^R	N/A	None	None
Supranational Obligations ^S	5 years	30%	"AA" rating category or its equivalent or better

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- * Represents where the City's investment policy is more restrictive than the California Government Code. The sources used are Sections 16340, 16429.1, 53601, 53601.8, 53635, 53635.2, and 53638. Municipal utilities districts have the authority under the Public Utilities Code Section 12871 to invest in certain securities not addressed here.

Other restrictions on investments are summarized as follows:

- A Section 53601 provides that the maximum term of any investment authorized under this section, unless otherwise stated, is five years. However, the legislative body may grant express authority to make investments either specifically or as a part of an investment program approved by the legislative body that exceeds this five-year maturity limit. Such approval must be issued no less than three months prior to the purchase of any security exceeding the five-year maturity limit.
- B Percentages apply to all portfolio investments, regardless of source of funds. For instance, cash from a reverse repurchase agreement would be subject to the restrictions.
- C No more than 30% of the agency's money may be in bankers' acceptances of any one commercial bank.
- D "Select agencies" are defined as a "city, a district, or other local agency that does not pool money in deposits or investment with other local agencies, other than local agencies that have the same governing body."
- E Local agencies, other than counties or a city and county, may purchase no more than 10% of outstanding commercial paper of any single issuer.
- F Issuing corporation must be organized and operating within the United States and have assets in excess of \$500.0 million.
- G "Other agencies" are counties, a city and county, or other local agency "that pools money in deposits or investments with other local agencies, including local agencies that have the same governing body." Local agencies that pool exclusively with other local agencies that have the same governing body must adhere to the limits set for "Select agencies" above.
- H No more than 30 percent of the agency's money may be in negotiable certificates of deposit that are authorized under Section 53601(i).
- I No more than 30% of the agency's money may be invested in deposits, including CDs, through a placement service. No more than 30% of the agency's money may be invested in CDs through a placement service and negotiable CDs based on Sections 53601.8, 53635.8, and 53601(i). Excluding purchases of certificates of deposit pursuant to Sections 53601.8 and 53635.8, no more than 10% of the agency's money may be invested with any one private sector entity that assists in the placement of deposits.

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- J Reverse repurchase agreements or securities lending agreements may exceed the 92-day term if the agreement includes a written codicil guaranteeing a minimum earning or spread for the entire period between the sale of a security using a reverse repurchase agreement or securities lending agreement and the final maturity dates of the same security.
- K Reverse repurchase agreements must be made with primary dealers of the Federal Reserve Bank of New York or with a nationally chartered or state-chartered bank that has a significant relationship with the local agency. The local agency must have held the securities used for the agreements for at least 30 days.
- L "Medium-term notes" are defined in Section 53601 as "all corporate and depository institution debt securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the U.S. or by depository institutions licensed by the U.S. or any state and operating within the U.S."
- M No more than 10% invested in any one mutual fund. This limitation does not apply to money market accounts.
- N A mutual fund must receive the highest ranking by not less than two nationally recognized rating agencies or the fund must retain an investment adviser who is registered with the SEC (or exempt from registration), has assets under management in excess of \$500.0 million, and has at least five years' experience investing in instruments authorized by Sections 53601 and 53635.
- O A money market mutual fund must receive the highest ranking by not less than two nationally recognized statistical rating organizations or retain an investment adviser registered with the SEC or exempt from registration and who has not less than five years' experience investing in money market instruments with assets under management in excess of \$500.0 million.
- P Issuer must be rated in the category "A," or its equivalent or better, as provided by a nationally recognized rating agency.
- Q A joint powers authority pool must retain an investment advisor who is registered with the SEC (or exempt from registration), has assets under management in excess of \$500.0 million, and has at least five years' experience investing in instruments authorized by Section 53601, subdivisions (a) to (o).
- R Local entities can deposit between \$200.0 million and \$10.0 billion into the Voluntary Investment Program Fund upon approval by their governing bodies. Deposits in the fund will be invested in the Pooled Money Investment Account.
- S Only those obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, and Inter-American Development Bank.

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General Investment Pool Securities Lending Program.

Securities lending is permitted and limited under provisions of California Government Code Section 53601. The Council approved the Securities Lending Program (SLP) on October 22, 1991 under Council File No. 91-1860, which complies with the California Government Code. The objectives of the SLP in priority order are safety of loaned securities and prudent investment of cash collateral to enhance revenue from the investment program. The SLP is governed by a separate policy and guidelines.

The City's custodial bank acts as the securities lending agent. In the event a counterparty defaults by reason of an act of insolvency, the bank shall take all actions, which it deems necessary or appropriate to liquidate permitted investment and collateral in connection with such transaction, and shall make a reasonable effort for two business days (the Replacement Period) to apply the proceeds thereof to the purchase of securities identical to the loaned securities not returned. If during the Replacement Period the collateral liquidation proceeds are insufficient to replace any of the loaned securities not returned, the bank shall, subject to payment by the City of the amount of any losses on any permitted investments, pay such additional amounts, as necessary, to make such replacement.

Under the provisions of the SLP, and in accordance with the California Government Code, no more than 20% of the market value of the General Investment Pool is available for lending. The City loans out U.S. Treasury notes and U.S. agency securities (e.g., Fannie Mae, Freddie Mac, Federal Home Loan Bank, Federal Agricultural Mortgage Corporation, Federal Farm Credit Bank, and Tennessee Valley Authority), medium-term notes, and supranational coupons. The City receives cash as collateral on the loaned securities, which is reinvested in securities permitted under the Policy. In addition, the City receives securities as collateral on loaned securities, which the City has no ability to pledge or sell without borrower default. In accordance with the California Government Code, the securities lending agent marks to market the value of both the collateral and the reinvestments daily. Except for open loans where either party can terminate a lending contract on demand, term loans have a maximum life of 60 days. Earnings from securities lending accrue to the Pool and are allocated on a pro rata basis to all pool participants.

During the fiscal year 2018, collateralizations on all loaned securities were compliant with the required 102% of the market value. The City can sell collateral securities only in the event of borrower default. The lending agent provides indemnification for borrower default. There were no violations of legal or contractual provisions and no borrower or lending agent default losses during the fiscal year. There was no credit risk exposure to the City because the amounts owed to the borrowers exceeded the amounts borrowed. Loaned securities are held by the City's agents in the City's name and are not subject to custodial credit risk.

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The following table provides information on securities lent and collateral received as of June 30 (in thousands):

	<u>2018</u>	<u>2017</u>
Type of investment lent:		
For cash collateral:		
U.S. agency securities	\$ 133,116	40,648
U.S. Treasury notes	5,967	1,012
Supranational coupons	4,037	24,014
Medium-term notes	17,210	—
Total lent for cash collateral	<u>160,330</u>	<u>65,674</u>
For noncash collateral:		
U.S. Treasury notes	245,904	981,789
U.S. agency securities	30,214	31,397
Medium-term notes	—	—
Total lent for noncash collateral	<u>276,118</u>	<u>1,013,186</u>
Total securities lent	<u>\$ 436,448</u>	<u>\$ 1,078,860</u>
Type of collateral received		
Cash collateral*	\$ 163,710	67,115
Noncash collateral**		
For lent U.S. Treasury notes, U.S. agency securities, medium-term notes, and supranational coupons	<u>282,448</u>	<u>1,037,782</u>
Total collateral received	<u>\$ 446,158</u>	<u>\$ 1,104,897</u>

* Amount represents cash collateral received and reinvested in repurchase agreements that have the mark-to-market value of the cash collateral pool at 102% for the liquidity of the portfolio and 100% for the duration portfolio for fiscal years 2017 and 2018

** The City has no ability to pledge or sell collateral securities without borrower default.

Fair Value Measurements

The City measures and categorizes its investments using fair value measurement guidelines established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset or liability. The levels of valuation inputs are as follows:

Level 1 – Quoted prices for identical assets or liabilities in an active market

Level 2 – Observable inputs other than quoted market prices

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Level 3 – Unobservable inputs.

At June 30, 2018 and 2017, the City's summary of the fair value hierarchy of investments is as follows (in thousands):

<u>Investments</u>	<u>Amount</u>	<u>June 30, 2018</u>	
		<u>Fair value measurements using</u>	<u>Quoted prices</u>
		<u>in active</u>	<u>Significant</u>
		<u>markets for</u>	<u>other</u>
		<u>identical</u>	<u>observable</u>
		<u>Assets (Level 1)</u>	<u>inputs</u>
		<u>Assets (Level 1)</u>	<u>Assets (Level 2)</u>
Investment Subject to fair value hierarchy:			
U.S. Treasury notes	\$ 5,749,557	49,763	5,699,794
U.S. agency securities	546,116	—	546,116
Medium-term notes	1,424,599	—	1,424,599
Municipal bonds	78,274	—	78,274
Asset-backed securities	113,973	—	113,973
Supranational obligations	141,978	—	141,978
Total investments subject to fair value	<u>8,054,497</u>	<u>49,763</u>	<u>8,004,734</u>
Investment not subject to fair value hierarchy:			
Mutual fund*	177,796		
Short-term investment funds*	48,872		
U.S. agency securities*	260,522		
Commercial paper*	813,424		
Supranational obligations*	156,606		
Securities lending short-term repurchase agreement **	163,710		
Total investments not subject to fair value hierarchy	<u>1,620,930</u>		
Total investments measured at fair value	<u>9,675,427</u>		
Investments measured at the net asset value (NAV)			
Mutual fund – AMT-Free, tax-exempt	4,787		
Total investments	<u>\$ 9,680,214</u>		

* These investments are recorded at amortized cost that has remaining maturities of one year or less at the time of purchase.

** These investments are recorded based on the cash collateral received and reinvested in repurchase agreement.

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<u>Investments</u>	<u>Amount</u>	<u>June 30, 2017</u>	
		<u>Fair value measurements using Quoted prices in active markets for identical Assets (Level 1)</u>	<u>Significant other observable inputs Assets (Level 2)</u>
Investment subject to fair value hierarchy:			
U.S. Treasury notes	\$ 4,784,091	601,390	4,182,701
U.S. agency securities	514,127	35,348	478,779
Medium-term notes	1,440,354	—	1,440,354
Municipal bonds	79,684	—	79,684
Asset-backed securities	70,100	—	70,100
Supranational obligations	149,425	—	149,425
Total investments subject to fair value	<u>7,037,781</u>	<u>636,738</u>	<u>6,401,043</u>
Investment not subject to fair value hierarchy:			
Mutual fund*	7,251		
Short-term investment funds*	284,148		
U.S. agency securities*	954,054		
Commercial paper*	1,418,930		
Supranational obligations*	501,532		
Securities lending short-term repurchase agreement **	67,115		
Total investments not subject to fair value	<u>3,233,030</u>		
Total investments	<u>\$ 10,270,811</u>		

* These investments are recorded at amortized cost that has remaining maturities of one year or less at the time of purchase.

** These investments are recorded based on the cash collateral received and reinvested in repurchase agreement.

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Investments classified in Level 1 of the fair value hierarchy of \$49.8 million and \$636.7 million at June 30, 2018 and 2017, respectively, are valued using observable unadjusted quoted prices in an active market.

Investments in the Level 2 classification totaling \$8 billion and \$6.4 billion at June 30, 2018 and 2017, respectively, are valued using matrix pricing obtained from various pricing sources by the City's custodian bank. At the time of purchase, securities are automatically assigned a primary pricing source, which is used in the portfolio valuation report and evaluated based on market inputs, such as benchmark yields, reported trades, broker-dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, and reference data.

Investments measured at NAV (in thousands):

	<u>Fair value</u>	<u>Unfunded commitments</u>	<u>Redemption frequency</u>	<u>Redemption notice period</u>
Mutual funds – AMT-Free, tax-exempt	\$ 4,787	—	Anytime	—

Mutual fund investments measured at NAV normally invest substantially all of their assets in short-term, high-quality municipal obligations that provide income exempt from federal income taxes. The fund also may invest in high-quality, short-term structured notes that are derivative instruments whose value is tied to underlying municipal obligations. There are no restrictions on redemption and no stipulated redemption notice period.

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(6) Long-Term Debt

Long-term debt outstanding as of June 30, 2018 and 2017 consists of revenue bonds and refunding revenue bonds due serially in varying annual amounts, and other long-term debt, as follows (amounts in thousands):

<u>Bond issues</u>	<u>Date of issue</u>	<u>Effective- interest rate %</u>	<u>Fiscal year of last scheduled maturity</u>		<u>Principal outstanding</u>	
					<u>2018</u>	<u>2017</u>
Revenue bonds:						
Issue of 2001, Series B	02/28/01	Variable	2036	\$	325,000	325,000
Issue of 2003, Series B	03/06/03	4.014	2031		8,780	8,780
Issue of 2007, Series A1	06/26/07	4.764	2038		—	2,000
Issue of 2009, Series A	02/04/09	5.118	2039		142,635	146,385
Issue of 2009, Series B	12/03/09	3.252	2021		84,795	110,275
Issue of 2009, Series C	12/03/09	3.844	2040		346,090	346,090
Issue of 2010, Series A	12/14/10	4.374	2051		492,710	492,710
Issue of 2011, Series A	08/24/11	4.542	2042		306,225	307,140
Issue of 2012, Series A	06/06/12	4.319	2044		276,765	276,765
Issue of 2012, Series B	08/09/12	4.023	2044		322,000	322,000
Issue of 2012, Series C	08/09/12	2.483	2027		92,715	92,715
Issue of 2013, Series A	05/30/13	2.797	2035		91,965	100,025
Issue of 2013, Series B	12/05/13	3.836	2036		364,990	380,000
Issue of 2014, Series A	11/20/14	3.987	2045		271,000	271,000
Issue of 2016, Series A	04/21/16	3.184	2047		628,615	628,615
Issue of 2016, Series B	06/09/16	3.111	2047		265,730	265,730
Issue of 2017, Series A	05/11/17	3.825	2048		530,270	530,270
Issue of 2018, Series A	03/01/18	3.576	2049		231,000	—
Total principal amount					4,781,285	4,605,500
Unamortized premiums and discounts					446,714	431,781
Revenue bonds, net					5,227,999	5,037,281
Debt due within one year (including current portion of variable rate debt)					(89,700)	(87,715)
					<u>5,138,299</u>	<u>4,949,566</u>

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<u>Bond issues</u>	<u>Date of issue</u>	<u>Effective- interest rate %</u>	<u>Fiscal year of last scheduled maturity</u>	<u>Principal outstanding</u>	
				<u>2018</u>	<u>2017</u>
Other long-term debt:					
Loans payable to California					
State Water Resources					
Control Board					
SRF1997CX101	12/27/01	2.320 %	2024	\$ 5,723	6,688
SRF02CX139	06/28/07	2.600 %	2030	16,685	17,911
SRF06CX144	09/11/07	2.452 %	2030	24,017	25,727
SRF06CX147	06/28/07	2.292 %	2030	25,276	27,097
SRF10CX103	06/24/10	—	2035	37,474	39,816
SRF10CX104	06/24/10	—	2033	6,941	7,420
SRF11CX105	06/30/11	—	2035	19,694	20,888
SRF10CX116	06/30/11	—	2034	14,500	15,500
SRF10CX117	06/30/11	—	2033	7,250	7,750
SRF12CX105	06/30/12	—	2045	114,553	118,795
SRF12CX106	06/30/12	—	2045	29,598	30,694
SRF13P110	06/26/13	—	2019	50	150
SRF13P111	06/26/13	—	2019	50	150
SRF13P112	06/26/13	—	2019	50	150
SRF13CX104	06/26/13	—	2047	4,715	3,518
SRF13CX105	06/26/13	—	2047	97,407	81,467
SRF14CX102	06/26/14	2.085 %	2047	7,882	8,083
SRF14CX103	06/26/14	2.085 %	2047	52,701	53,287
SRF14CX104	06/26/14	2.085 %	2047	16,672	17,089
SRF14CX105	06/26/14	2.085 %	2047	32,872	28,720
SRF14-586-550	03/10/15	—	2022	60	80
SRF14-310-550	06/19/15	1.663 %	2040	40,673	17,158
SRF D15-02014	09/29/15	1.663 %	2036	3,570	3,746
Total principal amount				558,412	531,884
Amount due within one year				(14,146)	(13,536)
Loans payable, noncurrent				544,266	518,348
Total long-term debt, bonds, and loans				\$ 5,786,411	5,569,165

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Revenue bonds generally are callable 10 years after issuance. The Water System has agreed to certain covenants with respect to bonded indebtedness. Significant covenants include the requirement that Water System's net income, as defined, will be sufficient to pay certain amounts of future annual bond interest and of future annual aggregate bond interest and principal maturities. Revenue bonds and refunding bonds are collateralized by the future revenue of the Water System.

The Drinking Water State Revolving Fund (DWSRF), administered by the State of California's State Water Resources Control Board, assists public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with Safe Drinking Water Act (SDWA) requirements. The DWSRF utilizes a prioritized project ranking system to ensure that program resources are applied to projects addressing public health risk problems; projects needed to comply with the SDWA; and projects assisting public water systems most in need on a per household-affordability basis. The Water System has applied for and received funding from the DWSRF for critical Water System capital projects required for compliance with federal drinking water regulations, specifically the Long Term 2 Enhanced Surface Water Treatment Rule and the Stage 2 Disinfection By Products Rule. This funding has been made available to the Water System in the form of low or 0% interest loans with a repayment period of up to 30 years.

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(a) Long-Term Debt Activity

The Water System had the following activity in long-term debt during fiscal year 2018 and 2017 (amounts in thousands):

	<u>Balance June 30, 2017</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance June 30, 2018</u>
Revenue bonds:				
Principal:				
Beginning balance	\$ 4,605,500	—	—	4,605,500
Issuances	—	231,000	—	231,000
Refunding bonds	—	—	—	—
Scheduled maturities	—	—	(55,215)	(55,215)
Refunded/defeased bonds	—	—	—	—
	<u>4,605,500</u>	<u>231,000</u>	<u>(55,215)</u>	<u>4,781,285</u>
Premium(Discount)				
Beginning balance	431,781	—	—	431,781
Issuances	—	42,403	—	42,403
Refunding bonds	—	—	—	—
Scheduled amortization	—	—	(27,470)	(27,470)
Written off due to refunding	—	—	—	—
	<u>431,781</u>	<u>42,403</u>	<u>(27,470)</u>	<u>446,714</u>
Revenue bonds, net	5,037,281	273,403	(82,685)	5,227,999
Loan from SWRCB ¹	531,884	49,687	(23,159)	558,412
Total	<u>\$ 5,569,165</u>	<u>323,090</u>	<u>(105,844)</u>	<u>5,786,411</u>

¹ During Fiscal Year 2017-18, the Water System did not enter into new loan agreements with the SWRCB. Existing SWRCB loans received \$49.7 million to fund water quality capital improvements and made principal payments of \$23.1 million.

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	<u>Balance June 30, 2016</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance June 30, 2017</u>
Revenue bonds:				
Principal:				
Beginning balance	\$ 4,393,690	—	—	4,393,690
Issuances	—	167,000	—	167,000
Refunding bonds	—	363,270	—	363,270
Scheduled maturities	—	—	(43,295)	(43,295)
Refunded/defeased bonds	—	—	(275,165)	(275,165)
	<u>4,393,690</u>	<u>530,270</u>	<u>(318,460)</u>	<u>4,605,500</u>
Premium(Discount)				
Beginning balance	377,441	—	—	377,441
Issuances	—	25,804	—	25,804
Refunding bonds	—	57,028	—	57,028
Scheduled amortization	—	—	(24,344)	(24,344)
Written off due to refunding	—	—	(4,148)	(4,148)
	<u>377,441</u>	<u>82,832</u>	<u>(28,492)</u>	<u>431,781</u>
Revenue bonds, net	4,771,131	613,102	(346,952)	5,037,281
Loan from SWRCB ¹	478,469	71,511	(18,096)	531,884
Total	<u>\$ 5,249,600</u>	<u>684,613</u>	<u>(365,048)</u>	<u>5,569,165</u>

¹ During Fiscal Year 2016-17, the Water System did not enter into new loan agreements with the SWRCB. Existing SWRCB loans received \$71.5 million to fund water quality capital improvements and made principal payments of \$18.1 million.

(b) New Issuances

Fiscal Year 2018

Water System Revenue Bonds

In March 2018, the Water System issued \$231 million of Water System Revenue Bonds, 2018 Series A. The net proceeds of \$272.89 million, including \$41.89 million issue premium net of underwriter's discount, were deposited into the construction fund to be used for capital improvements.

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Fiscal Year 2017

Water System Revenue Bonds

In May 2017, the Water System issued \$530.27 million of Water System Revenue Bonds, 2017 Series A. The net proceeds of \$611.90 million, including an \$81.63 million issue premium net of underwriter's discount, were used to pay for budgeted capital improvements, repay the Water System revolving loan amounting to \$142.4 million, and refund a portion of the Water System Revenue Bonds, 2007 Series A, Subseries A-1, amounting to \$77.72 million and all of the outstanding Water System Revenue Bonds, 2007 Series A, Subseries A-2, amounting to \$197.45 million. The transaction resulted in a net present value savings of \$41.07 million and a net gain for accounting purposes of \$2.52 million, which was capitalized as deferred outflows on debt refunding and is being amortized over the life of the refunded bonds.

(c) Outstanding Debt Defeased

The Water System defeased certain revenue bonds in the prior years by placing cash or the proceeds of new revenue bonds in irrevocable trusts to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the Water System's financial statements. At June 30, 2018, the following revenue bonds outstanding are considered defeased (amounts in thousands):

Bond issues	Principal outstanding
Issue of 1998 R	\$ <u>66,040</u>
	\$ <u><u>66,040</u></u>

(d) Variable Rate Bonds

As of June 30, 2018 and 2017, the Water System had \$325 million in variable rate bonds. The variable rate bonds currently bear interest at daily and weekly rates ranging from 0.46% to 1.15% as of June 30, 2018 and 0.44% to 0.88% as of June 30, 2017. The Water System can elect to change the interest rate period of the bonds, with certain limitations. The bondholders have the right to tender the bonds to the tender agent on any business day with seven days' prior notice. The Water System has entered into standby agreements with a syndicate of commercial banks in initial amounts of \$225 million (2001B, Subseries B 1 to B 3) and \$100 million (2001B, Subseries B 4) to provide liquidity for these bonds. The extended standby agreements expire in January 2021 and July 2019, respectively.

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Under the agreements, the \$225 million variable rate bonds will bear interest that is payable monthly at the greatest of (i) Prime Rate plus 1.00%; (ii) the Federal Funds Rate plus 2.00%; and (iii) 7.50%, while the \$100 million variable rate bonds will bear interest that is payable monthly at the LIBOR Index Rate plus 7.50%. The unpaid principal of each liquidity advance made by the liquidity provider is payable in 10 equal semiannual installments 90 days immediately following the related liquidity advance. At its discretion, the Water System has the ability to convert the outstanding bonds to fixed-rate obligations, which cannot be tendered by the bondholders.

The variable rate bonds have been classified as long term on the statements of net position as the liquidity facilities give the Water System the ability to refinance on a long-term basis, and the Water System intends to either renew the facilities or exercise its right to tender the debt as a long-term financing. That portion, which would be due in the next fiscal year in the event that the outstanding variable rate bonds were tendered and purchased by the commercial banks under the standby agreements, has been included in the current portion of long-term debt and remains unchanged at \$32.5 million as of June 30, 2018 and 2017.

(e) Scheduled Principal Maturities and Interest

Scheduled annual principal maturities and interest on bonds and loans are as follows (amounts in thousands):

	<u>Principal</u>	<u>Interest and amortization</u>
Fiscal year(s) ending June 30:		
2019	\$ 71,346	210,522
2020	86,515	208,619
2021	91,727	206,384
2022	103,243	202,596
2023	117,864	198,314
2024-2028	721,270	915,356
2029-2033	866,415	776,289
2034-2038	1,024,377	606,283
2039-2043	1,242,192	362,864
2044-2048	773,654	137,379
2049-2053	241,093	14,222
Total requirements	<u>\$ 5,339,697</u>	<u>3,838,826</u>

The interest and amortization is net of \$436.58 million of unamortized discount/premium and gain/loss due to issuances of new and refunding bonds.

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The maturity schedule presented above reflects the scheduled debt service requirements for all of the Water System's long-term debt. The schedule is presented assuming that the tender options on the variable rate bonds, as discussed on the previous page, will not be exercised. Should the bondholders exercise the tender options, the Water System could be required to redeem the \$325 million in variable rate bonds outstanding over the next six fiscal years as follows: \$32.5 million in fiscal year 2019, \$65 million in each of the fiscal years 2020 through 2023, and \$32.5 million in fiscal year 2024. Accordingly, the statements of net position recognize the possibility of the exercise of the tender options and reflect the \$32.5 million that could be due in fiscal year 2019, as a current portion of long-term debt payable.

Interest and amortization presented in the above schedule include interest requirements for the variable rate debt over the regularly scheduled maturity period. Variable debt interest rate in effect at June 30, 2018 averages 0.98%. Should the tender options be exercised, the interest would be payable at the rate in effect at the time the standby agreements are activated.

(f) Line of Credit

On December 1, 2015, the Water System entered into a revolving credit agreement (as amended, the Wells Fargo RCA) with Wells Fargo Bank, National Association (Wells Fargo), pursuant to which Wells Fargo has committed to make loans to the Water System in a principal amount not-to-exceed \$500 million outstanding at any one time. The borrowings bear interest based on the Securities Industry and Financial Markets Association Index Rate (SIFMA) or London Interbank Offered Rate (LIBOR) plus a 0.29% spread for tax exempt loans and 0.40% spread for taxable loans. Interest is paid monthly. This agreement is collateralized by the Water Revenue Fund and expired on December 14, 2018. The Department can request loans for Water System improvements, Power System improvements and/or such other lawful purposes of the Department.

In September 2016, the Water System repaid \$150 million under the line of credit for a draw made in June 2016 for operating purposes from the Wells Fargo RCA.

In December 2016, the Water System drew down \$142.4 million from the Wells Fargo RCA to fund a portion of the Water System's capital expenditures for fiscal year 2017. In May 2017, the Water System issued Water System Revenue Bonds, 2017 Series A, of which a portion of the proceeds was used to repay the \$142.4 million loan.

In June 2017, the Water System borrowed \$250 million from the Wells Fargo RCA, which was deposited into the Water Revenue Fund to meet the Board adopted financial planning criteria of maintaining a cash balance of at least 150 days of operating expenses of the Water System. In March 2018, the Water System repaid the \$250 million loan. As of June 30, 2018, the Water System has no obligations outstanding under the Wells Fargo RCA.

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On December 14, 2018, LADWP entered into an Amended and Restated Revolving Credit Agreement (Amended RCA) and the related Amended and Restated Fee and Interest Rate Agreement with Wells Fargo Bank, National Association with a \$300 million commitment and the option to request additional commitment, as needed, up to a total commitment of \$500 million. The interest charge for tax-exempt loans is based on SIFMA plus a spread of 0.50% or 75% of one-month LIBOR plus a spread of 0.45%. The interest charge for taxable loans is based on one-month LIBOR plus a spread of 0.45%. The Amended RCA expires in December 2023.

(7) Retirement Plan

(a) Plan Description

The Water System has funded a contributory retirement plan covering substantially all of its employees. The Water and Power Employees' Retirement Fund (the Fund or Plan) operates as a single-employer defined-benefit plan to provide pension benefits to eligible department employees. The Retirement Fund's assets are held in a special trust fund of the City. Plan benefits are generally based on years of service, age at retirement, and the employee's highest 12 consecutive months of salary before retirement. Active participants who joined the Plan on or after June 1, 1984 are required to contribute 6% of their annual covered payroll. Participants who joined the Plan prior to June 1, 1984 contribute an amount based upon an entry-age percentage rate. A new Tier 2 was added to the Plan and applies to members hired on or after January 1, 2014. Tier 2 plan participants are required to contribute 10% of their salary and plan benefits are based on a three-year final average salary period.

Under the provisions of the City Charter, the Retirement Board of Administration (the Retirement Board) has the responsibility and authority to administer the Plan and to invest its assets. The Retirement Board members serve as trustees and must act in the exclusive interest of the Plan's members and beneficiaries. The Retirement Board has seven members: one member of the Board of Water and Power Commissioners, the General Manager, the Chief Accounting Employee, three employee members who are elected for three-year terms by active members of the Plan, and one retiree who is appointed by the Board of Water and Power Commissioners for a three-year term.

Plan amendments must be approved by both the Retirement Board and the Board of Commissioners of the Department. The Plan issues separately available financial statements on an annual basis. Such financial statements can be obtained from the Department of Water and Power Retirement Office, 111 N. Hope, Room 357, Los Angeles, California 90012.

(b) Benefits provided

The Plan provides retirement benefits to eligible employees. Most employees of the Water System become members of the Plan effective on the first day of biweekly payroll following employment or immediately following transfer from another City department. Members employed prior to January 1, 2014 are designated as Tier 1 and those hired on or after January 1, 2014 are designated as Tier 2 (unless a specific exemption applies to employee providing a right to Tier 1 status).

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Tier 1 members are eligible to retire once they attain the age of 60 with 5 or more years of service or at age 55 with 10 or more years of service credit acquired in the last 12 years prior to retirement. A Tier 1 member with 30 years of service is eligible to retire regardless of age. Tier 2 members are eligible to retire once they attain the age of 60 with 10 or more years of service or at any age with 30 years of service. For both tiers, combined years of service between the Plan and the Los Angeles City Employees Retirement System is used to determine retirement eligibility and at least 5 years must be actual employment at the Department or the City (not purchased). For both tiers, members receiving Permanent Total Disability benefits may retire regardless of age. For Tier 1, to be eligible for a Formula Pension, the employee must have worked or been paid disability 4 of the last 5 years immediately preceding eligibility to retire, or while eligible to retire.

The Formula Pension benefit the member will receive is based upon age at retirement, monthly average salary base, and years of retirement service credit. The Tier 1 Formula Pension is equal to 2.1% times years of service credit times monthly average salary base. In addition, members retiring after attaining age 55 with 30 years of service credit, receive an increase in the benefit factor from 2.1% to 2.3%. A reduced early retirement benefit is paid for those members attaining age 55 with 10 years of service or any age (under 55) with 30 years of service. The reduction is 1.5% for each year of retirement age between 60 and 55 and 3.0% for each year of retirement before age 55.

Under Tier 2, there are various benefit factors that apply as shown below:

- 2.0% at age 55 with 30 years of service credit
- 1.5% at age 60 with 10 years of service credit
- 2.0% at age 63 with 10 years of service credit
- 2.1% at age 63 with 30 years of service credit

Reduced early retirement benefits are still available at any age (under 55) with 30 years of service and the reduction factors are the same as Tier 1. Note that these reduction factors continue to include the reduction from age 60 to 55 and from 55 to age at retirement.

For Tier 1 members, the maximum monthly retirement allowance is 100% of monthly average salary base. For Tier 2 members, the maximum monthly retirement allowance is 80% of monthly average salary base. Under Tier 1, pension benefits are calculated based on the highest average salary earned during a 12-month period. Under Tier 2, pension benefits are calculated based on the average salary earned during a 36-month period.

The member may elect the full allowance, or choose an optional retirement allowance. The full allowance provides the highest monthly benefit and up to a 50% continuance to an eligible surviving spouse or domestic partner. There are five optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the full allowance in order to allow the member the ability to provide various benefits to a surviving spouse, domestic partner, or named beneficiary.

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(c) Plan membership

As of the June 30, 2017 and 2016 measurement dates for the June 30, 2018 and 2017 net pension liability, pension plan membership, which consisted of Water and Power System members, consisted of the following:

	2018	2017
Retired members or beneficiaries currently receiving benefits	\$ 9,272	9,265
Vested terminated members entitled to, but not yet receiving, benefits	1,648	1,612
Active members	9,806	9,348
Total	\$ 20,726	20,225

(d) Contributions

The Department contributes \$1.10 for each \$1.00 contributed by participants plus an actuarially determined annual required contribution (ARC) as determined by the Plan's independent actuary. The required contributions are allocated between the Power System and the Water System based on the current year labor costs.

Employer contribution rates are adopted annually based upon recommendations received from the Plan's actuary after the completion of the annual actuarial valuation. The average employer contribution rates for fiscal years 2018, 2017, and 2016 (based on the July 1, 2017, 2016, and 2015 valuations) were 44.62%, 45.25%, and 42.77% of compensation, respectively. The average member contribution rate for fiscal years 2018, 2017, and 2016 (based on the July 1, 2017, 2016, and 2015 valuations) was 6.83% of compensation. Most Tier 1 members contribute at 6% of compensation and all Tier 2 members contribute at 10% of compensation. Employer contributions in fiscal years 2018, 2017, and 2016 amounted to \$141 million, \$127 million, and \$118 million, respectively.

(e) Net Pension Liability

At June 30, 2018 and 2017, the Water System reported a liability of \$426 million and \$699 million, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2017 and 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of the same dates. The Water System's proportion of the net pension liability was based on the Water System's projected compensation for the year following the measurement date, relative to the projected compensation for the same period for both the Water System and the Power System. At June 30, 2018, the Water System's proportion was 31.7% compared to 31.9% and 32.6% as of June 30, 2017 and 2016, respectively.

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(f) Actuarial Assumptions

The Department's net pension liability as of June 30, 2018 and 2017, was measured as of June 30, 2017 and 2016, using actuarial valuations as of July 1, 2017 and 2016, respectively. The actuarial assumptions used in the July 1, 2017 valuation were based on the results of an experience study for the period from July 1, 2012 through June 30, 2015. The actuarial assumptions used in the July 1, 2016 valuation were based on the results of an experience study for the period from July 1, 2012 through June 30, 2015. The following assumptions were applied to all periods included in the measurement for the July 1, 2017 and 2016 actuarial valuations:

Actuarial assumptions	2017	2016
Inflation	3.00%	3.00%
Salary increases	4.50%–10.00%	4.50%–10.00%
Investment rate of return	7.25%	7.25%
Cost-of-living adjustments	3.00% (Actual increases are contingent upon CPI increases, with a 3.00% maximum for Tier 1 and 2.00% maximum for Tier 2.)	3.00% (Actual increases are contingent upon CPI increases, with a 3.00% maximum for Tier 1 and 2.00% maximum for Tier 2.)
Mortality	Healthy postretirement: RP-2014 Healthy Annuitant Mortality Table set back one year with MP-2015 projection scale	Healthy postretirement: RP-2014 Healthy Annuitant Mortality Table set back one year with MP-2015 projection scale

(g) Discount Rate:

The discount rate used to measure the pension liability was 7.25% as of both June 30, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current and inactive plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments, which is estimated to be 104 years, to determine the total pension liability at June 30, 2018 and 2017.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which the best estimate ranges of expected future real rates of return (expected returns, net of 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 proportionate share, adding expected inflation and subtracting expected investment expenses. The target allocation and projected best estimates of arithmetic real rates of

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return for each major asset class, after deducting inflation but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

<u>Asset class</u>	<u>June 30, 2018 and 2017</u>	
	<u>Target allocation</u>	<u>Long-term expected real rate of return</u>
Domestic equity	29%	5.76%
Developed international equity	19	7.25
Fixed income	25	1.74
Real estate	8	4.37
Real return	5	2.39
Private equity	8	7.75
Covered calls	5	3.50
Cash and cash equivalents	1	(0.46)
Total	<u>100%</u>	

(g) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Water System as of June 30, 2018 and 2017, calculated using the discount rate of 7.25%, respectively, as well as what the Department's pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.25%) or one percentage point higher (8.25%) than the current rate (amounts in thousands):

<u>Net pension liability</u>	<u>1% Decrease (6.25%)</u>	<u>Current discount rate (7.25%)</u>	<u>1% Increase (8.25%)</u>
June 30, 2018	\$ 972,338	426,444	(24,582)
<u>Net pension liability</u>	<u>1% Decrease (6.25%)</u>	<u>Current discount rate (7.25%)</u>	<u>1% Increase (8.25%)</u>
June 30, 2017	\$ 1,232,838	698,878	257,742

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(h) Pension Plan Fiduciary Net Position

The pension plan's fiduciary net position is determined based on the accrual basis of accounting, which is on the same basis of accounting as the Plan. Pension plan investments are recorded at fair value except for short-term investments, which are recorded at amortized cost. Benefit payments include costs as designated by the plan document, refunds of employee contributions due to terminations and member deaths, and administrative expenses.

(i) Pension Expense, Deferred Outflow of Resources, and Deferred Inflow of Resources

The Water System recognized pension expense of \$78,301 and \$101,415 for the years ended June 30, 2018 and 2017. Pension expense is recorded as operation and maintenance expense or construction work in progress depending on where the related payroll is charged. At June 30, 2018 and 2017, the Water System reported \$188,361 and \$373,459, respectively, for deferred outflow of resources and deferred inflow of resources of \$154,895 and \$117,834, respectively.

The below table summarizes the deferred inflow of resource and deferred outflow of resources related to pensions at June 30, 2018 and 2017 (amounts in thousands).

Deferred outflow of resources	June 30	
	2018	2017
Changes in proportion and differences between entity contributions and proportionate share of contributions	\$ 3,343	5,538
Net difference between projected and actual earnings on pension plan investments	—	108,593
Changes of assumptions and other inputs	185,018	259,328
Total deferred outflow of resources	<u>\$ 188,361</u>	<u>373,459</u>

Deferred inflow of resources	June 30	
	2018	2017
Changes in proportion and differences between entity contributions and proportionate share of contributions	\$ 5,563	7,321
Net difference between projected and actual earnings on pension plan investments	23,143	—
Difference between expected and actual experience in the total pension liability	126,189	110,513
Total deferred inflow of resources	<u>\$ 154,895</u>	<u>117,834</u>

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In addition to the deferred outflows noted above, there are also \$140,957 and \$127,470 of deferred outflows related to pension contributions made after the measurement date as of June 30, 2018 and 2017, respectively. These deferred outflows of resources are recognized as a reduction of the net pension liability in the subsequent fiscal year.

The net amount of deferred outflows of resources and deferred inflows of resources related to pensions that will be recognized in pension expense during the next five years and thereafter is as follows:

Year	June 30	
	2018	2017
2018	\$ —	29,663
2019	9,635	55,345
2020	39,458	85,303
2021	20,901	66,664
2022	(26,897)	18,650
2023	(9,631)	—
Total	\$ 33,466	255,625

(8) Other Postemployment Benefit Plans

(a) General Information About the Plan

As discussed in note 2, beginning with the year ended June 30, 2018, the Water System adopted the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. For the year ended June 30, 2017, the Water System followed GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, for financial reporting purposes.

The Department provides retirees medical and dental benefits and death benefits to active and retired employees and their dependents. The retiree healthcare plan and death benefit plan are administered by the Department. The Retirement Board and the Board of Commissioners have the authority to approve provisions and obligations. Eligibility for benefits for retired employees is dependent on a combination of age and service of the participants pursuant to a predetermined formula. Any changes to these provisions must be approved by the Retirement Board and the Board.

The retiree healthcare and death benefit plans are single-employer, defined-benefit plans. Plan assets are administered through irrevocable trusts for each fund used solely for the benefit of providing benefits to eligible participants in the Plan. Assets of the trust are legally protected from creditors and dedicated to providing postemployment reimbursement of eligible medical, dental, and vision expenses to current and eligible future retirees and their spouses in accordance with the terms of the Plan. Death benefits are provided to active and inactive employees in accordance with terms of the Plan.

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The funds are administered in separate trust funds and presented as part of the retirement system financial statements. Such financial statements can be obtained from the Department of Water and Power Retirement Office, 111 North Hope, Room 357, Los Angeles, California 90012.

(b) Benefits Provided

For retiree healthcare, a medical subsidy is computed by a formula related to years of service and attained age of retirement. The subsidy limit is applied to the combined medial carrier and Medicare Part B premium but not the dental premium. For Tier 1, the monthly medical subsidy ranges from \$30.32 to \$1,630 depending on age and service at retirement. Tier 2, the monthly medical subsidy ranges from \$30.32 to \$815.27, depending on age and service at retirement. The monthly dental subsidy for most retirees is \$37.85. The dental subsidy is not available to pay for premiums for married and surviving spouses or domestic partners. All members hired before January 1, 2014 are Tier 1. All members hired after January 1, 2014 are Tier 2.

The death benefit plan pays death benefits to the beneficiaries of eligible employees. Generally, to be eligible for the family death benefit allowance, an employee must be a full member of the Plan and contributing to the Plan at the time of death. If death occurs after retirement, the retired member must be receiving a monthly retirement allowance from the Plan and had at least five years of department service at retirement. The Family Death Benefit plan pays a monthly allowance of \$416 to the surviving spouse of a member with minor (or disabled) children plus \$416 for each minor (or disabled) child up to a maximum monthly allowance of \$1,170. In addition, the spouse's portion will not be paid if the spouse is receiving a survivor's optional death benefit allowance or an eligible spouse allowance from the retirement plan.

The Supplemental Family Death Plan, which is part of the Death Benefit plan is optional and subject to making additional member contributions. The Supplemental Family Death Benefit Plan pays a monthly allowance of \$520 for each surviving spouse or child, in addition to the amounts payable from the Family Death Benefit Plan, subject to a maximum of \$1,066 for the additional benefits. The insured lives death benefit plan for contributing members provides death benefits to employees that die while employed by the Department. Generally, to be eligible, an employee must be a full member of the Plan and contributing to the Plan at the time of death. The benefit paid from the death benefit fund is a single sum that is equal to the lesser of 14 times the member's monthly compensation with no maximum.

The insured lives death benefit plan for noncontributing members provides death benefits to employees that were employed by the Department for at least five years and death occurred after retirement. The death benefit is paid in a single sum that is equal to the lesser of 14 times the member's monthly full retirement allowance or \$20,000.

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(c) Employees Covered by Benefit Terms

At the Department's measurement date of June 30, 2017, the following employees were covered by the benefit terms:

<u>Plan Membership</u>	<u>Retiree healthcare</u>	<u>Death benefit</u>
Beneficiaries currently receiving benefits	—	93
Retired members currently receiving benefits	8,038	7,113
Vested terminated members not receiving benefits	—	726
Active members	9,806	9,806
Total	<u>17,844</u>	<u>17,738</u>

(d) Contributions

The Retirement Board establishes rates based on an actuarially determined rate. For the year ended June 30, 2018, the Department's average contribution rate was 10.1% of covered-employee payroll. Employees are not required to contribute to the retiree healthcare plan. Water System contributions to the retiree healthcare plan were \$31,412 including administrative expenses of \$0.2 million for the fiscal year ended June 30, 2018.

The Department contributes to the death benefit fund based on actuarially determined contribution rates adopted by the board of administration. Employer contribution rates are adopted annually based on recommendations received from the Plan's actuary after the completion of the review of the death benefit fund. The employer and member contribution rates as of June 30, 2018 are as follows:

	<u>Department</u>	<u>Active</u>	<u>Retired</u>
Family death benefit	\$1.62 monthly per active member	N/A	N/A
Supplemental family death benefit insured lives	N/A	\$2.25 biweekly	\$4.9 monthly
Contributoring	\$0.22 per \$100 of payroll	\$1.00 biweekly	N/A
Noncontributoring	\$11.05 per \$100 of monthly retirement benefit	N/A	N/A

Water System contributions to the death benefits plan were \$2,605 including administrative expenses of \$0.3 million for the fiscal year ended June 30, 2018.

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(e) Net OPEB Liability

(i) *For the year ended June 30, 2018 under GASB Statement No. 75:*

The Water System reported a liability of \$176 million for its proportionate share of the net OPEB liability for retiree healthcare plan and the death benefit plan as of June 30, 2018. The net OPEB liabilities for each of the plans was measured as of June 30, 2017 and the total OPEB liability used to calculate the net OPEB liability was determined by actuarial valuations as of June 30, 2017. The Water System's proportion of the net OPEB liability was based on the Water System's projected compensation for the year following the measurement date, relative to the projected compensation for the same period for both the Water System and the Power System. At June 30, 2018, the Water System's proportion of the retiree healthcare plan and the death benefit plan net OPEB liabilities was 31.7% compared to 31.9% as of June 30, 2017.

The following table shows the Water System's proportionate share of the net OPEB liability for each of the plans as of June 30, 2018 (amounts in thousands):

		<u>2018</u>
OPEB liability for retiree healthcare plan	\$	138,296
OPEB liability for death benefit plans		<u>37,852</u>
Net OPEB Liability	\$	<u><u>176,148</u></u>

All assumptions are based on the results of an actuarial experience study for the period July 1, 2012 – June 30, 2016.

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The total OPEB liability in the June 30, 2017 actuarial valuation used for the Water System's June 30, 2018 financial statements was determined using the following actuarial assumptions:

	<u>Retiree Healthcare plan</u>	<u>Family Death Benefit</u>	<u>Supplemental Death Benefit</u>	<u>Insured Lives Benefit (Contributing Active Members)</u>	<u>Insured Lives Death Benefit (Non Contributing Members)</u>
Cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age
Investment rate of return	7.25%	3.5%	3.5%	3.5%	3.5%
Inflation rate	3%	3%	3%	3%	3%
Real across the board salary increases	0.5%	0.5%	0.5%	0.5%	0.5%
Projected salary increase	4.50 to 10%	4.50 to 10%	4.50 to 10%	4.50 to 10%	4.50 to 10%
Mortality table	RP-2014 mortality table reflected for mortality experience as of the measurement date.				
Medical cost trends:		—	—	—	—
Non-Medicare medical plan	7.00, graded down to 4.5% over 10 yrs.	—	—	—	—
Medicare medical plans	6.50, graded down to 4.5% over 8 yrs.				
Dental and Medicare Part B	4.50%				
Member contribution rate	None	None	\$2.25 per biweekly period or \$4.90 per month if retired.	\$1.00 per biweekly payroll period.	None
Department contribution rate	10.12%	\$1.62 per month	Any additional funds necessary to fund the benefits.	\$0.22 per \$100 of payroll.	\$1.05 per \$100 of monthly retirement benefit.
Age and Service Requirement	Tier 1 – Age 60 with 5 yrs of service; 55 with 10 yrs. of service in the last 12 years; any age with 30 yrs. of service; or receiving permanent total disability benefits from the Plan. Tier 2 – age 60 with 10 yrs. of service; 55 with 30 years of service; or any age with 30 years of service.	Preretirement death of an active, full, contributing member at any age; or Postretirement death of a member receiving a monthly retirement from WPERP with at least five years of service at retirement.	Preretirement death of an active, full, contributing member at any age; or Postretirement death of a member receiving a monthly retirement from WPERP.	Any age with six months of continuous service. Preretirement death of an active, full, contributing member to WPERP.	Death occurs after retirement and member was receiving a retirement monthly allowance from WPERP and had at least five years of service at retirement.

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	Retiree Healthcare plan	Family Death Benefit	Supplemental Death Benefit	Insured Lives Benefit (Contributing Active Members)	Insured Lives Death Benefit (Non Contributing Members)
Per Capita Cost Development	The assumed per capita claims cost by age is calculated using age based factors for Retiree ranging from 90.3% to 123% and Spouse ranging from 71.1% to 122.6% and applying these factors to premiums. (Eligible spouses and survivors are not eligible for DWP dental subsidy)	—	—	—	—
Monthly benefit	Tier 1 – \$30.32 to \$1,630.53. Tier 2 \$30.32 to \$815.27.	\$416 per month to each surviving child plus \$416 per month to eligible spouse.	\$520 per month to each surviving child plus \$520 per month to eligible spouse.	A single sum distribution equal to 14 times monthly salary.	A single sum distribution equal to 14 times the member's full retirement allowance up to \$20,000.
Participation rate	97% for medical and 95% for dental	—	—	—	—

Mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table with no age adjustments for male or females and set back one year for females, projected generationally with the two-dimensional MP-2015 projection scale. The actuarial assumptions used in the June 30, 2017 valuation were based on 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

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arithmetic real rates of return for each major asset class are summarized in the following table for each fund:

	Targeted allocation	Long-term expected arithmetic real rate of return
Retiree healthcare:		
Asset class	29 %	5.76 %
Domestic equity	19	7.25
International equity	25	1.74
Custom fixed income	8	4.37
Real estate	5	2.39
Real return	8	7.75
Private equity	5	3.50
	1	(0.46)
	100 %	
	Targeted allocation	Long-term expected arithmetic real rate of return
Death benefit:		
Fixed income	96 %	(0.82) %
Cash and cash equivalents	4	(0.46)
	100 %	
	100 %	

For the retiree healthcare fund, the discount rate used to measure the total OPEB liability was 7.25%. The projection of cash flows used to determine the discount rate assumed that Department's 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 OPEB 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.

For the death benefit fund, the discount rate was determined to be 3.50%, which is equivalent to the 20-year municipal bond rate. The fiduciary net position of this fund was not projected to cover

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all future benefit payments, and thus, the 20-year municipal bond rate was used to calculate the total OPEB liability.

(f) Sensitivity of Net OPEB Liability to Changes in the Discount Rate Rates

The following table represents the net OPEB liability of the Water System, calculated using the stated discount rate assumption as well as what the Water System's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage-point higher than the current discount rate (amounts in thousands):

	<u>1% decrease</u>	<u>Current</u>	<u>1% increase</u>
Discount rate	6.25 %	7.25 %	8.25 %
Net OPEB liability – Retiree healthcare plan	\$ 240,076	138,296	54,135
Discount rate	2.50 %	3.50 %	4.50 %
Net OPEB liability – Death benefit plan	\$ 44,686	37,852	32,383

(g) Sensitivity to Net OPEB Liability to Changes in Healthcare Cost Trend Rates

The following table represents the net OPEB liability of the Water System, calculated using the stated healthcare cost trend assumption as well as what the Water System's net OPEB liability would be if it were calculated using a healthcare cost trend that is one percentage point lower or one percentage point higher than the current healthcare cost trend rates (amounts in thousands):

	<u>1% Decrease</u>	<u>Current *</u>	<u>1% Increase</u>
Net OPEB liability – retiree healthcare fund	\$ 42,745	138,296	265,971

* Current trend rates: 7.00% graded down to 4.50% over 10 years for Non Medicare medical plan costs; 6.50% graded down to 4.50% over 8 years for Medicare medical plan costs and 4.50% for all years for Dental and Medicare Part B subsidy costs.

There is no trend rate assumption used in valuing the death benefit fund.

(h) OPEB Plan Fiduciary Net Position

Detailed information about the Plan's fiduciary net position is available in the separately issued plan financial report. The OPEB plans' fiduciary net positions are determined based on the accrual basis of accounting, which is on the same basis of accounting as the Plan. OPEB plan investments are recorded at fair value except for short-term investments, which are recorded at amortized cost. Benefit payments include costs designed by the plan document and administrative expenses.

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(In thousands)

(i) OPEB Expense and Deferred Outflows and Inflows of Resources Related to OPEB for the year ended June 30, 2018

For the year ended June 30, 2018, the Water System recognized OPEB expense of \$19,000 and \$2,767 for its proportionate share of the healthcare and death benefits plans, respectively. At June 30, 2018, the Water System reported deferred outflows and inflows of resources related to OPEB Plans from the following sources:

	Retiree Healthcare Plan		Death Benefits Plan		Total	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Change in proportion and differences between employer category's contributions	\$ —	1,861	—	128	—	1,989
Changes of assumptions	—	19,155	263	—	263	19,155
Net difference between projected and actual earnings on OPEB Plan Investments	—	24,407	—	—	—	24,407
Differences between expected and actual experience	—	12,104	34	—	34	12,104
	—	57,527	297	128	297	57,655
Employer contributions subsequent to the measurement date	31,412	—	2,605	—	34,017	—
Totals	<u>\$ 31,412</u>	<u>57,527</u>	<u>2,902</u>	<u>128</u>	<u>34,314</u>	<u>57,655</u>

Contributions after the measurement date shown above will be recognized as a reduction of the net OPEB liability of the plans in the fiscal year ending June 30, 2019.

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(In thousands)

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense in future reporting periods as follows:

	Retiree Healthcare Plan	Death benefits plan	Total
Year ended June 30:			
2019	\$ (11,687)	50	(11,637)
2020	(11,687)	50	(11,637)
2021	(11,687)	50	(11,637)
2022	(11,687)	50	(11,637)
2023	(5,585)	(16)	(5,601)
Thereafter	<u>(5,194)</u>	<u>(15)</u>	<u>(5,209)</u>
	<u>\$ (57,527)</u>	<u>169</u>	<u>(57,358)</u>

(j) Net OPEB Asset at June 30, 2017 and OPEB Expenses for the year ended June 30, 2017

The annual OPEB cost (expense) is calculated based on the employer's annual required contribution, an amount actuarially determined in accordance with the parameters of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. The annual required contribution represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost under each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years.

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The following table shows the components of the Water System's share in annual OPEB cost for the year, the amount actuarially contributed to the Plan, and changes in the net OPEB asset (amounts in thousands):

		2017
Annual required contribution	\$	29,180
Interest on net OPEB asset		(22,818)
Adjustment to annual required contribution		24,014
Annual OPEB costs		30,376
Department contributions made		(28,118)
Change in net OPEB asset		(2,258)
Net OPEB asset at beginning of year		320,463
Net OPEB asset at end of year	\$	318,205

The Water System's share in the annual OPEB cost, the percentage of ARC contributed to the Plan, and the net retirement asset for fiscal year 2017 were as follows (amounts in thousands):

		2017
Annual OPEB cost	\$	30,376
Percentage of OPEB costs contributed		93%
Net postemployment asset at end of year	\$	318,205

(k) Funded Status and Funding Progress Based on Latest Actuarial Study

On October 3, 2017, the latest actuarial study as of July 1, 2017 was completed for fiscal year 2018. As of July 1, 2017, the Department's actuarial value of assets was \$1.9 billion, and its actuarial accrued liability (AAL) for benefits was \$2.35 billion, resulting in an unfunded actuarial accrued liability (UAAL) of \$0.45 billion, which represents 81% funding status. The covered payroll (annual payroll of active employees covered by the Plan) was \$992 million, and the ratio of the UAAL to the covered payroll was 45%.

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On December 8, 2016, the actuarial study as of July 1, 2016 was completed for fiscal year 2017. As of July 1, 2016, the Department's actuarial value of assets was \$1.7 billion, and its AAL for benefits was \$2.33 billion, resulting in a UAAL of \$0.58 billion, which represents 75% funding status. The covered payroll (annual payroll of active employees covered by the Plan) was \$929 million, and the ratio of the UAAL to the covered payroll was 63%.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the Plan and ARCs of the Department are subject to continual revision, as actual results are compared with past expectations, and new estimates are made for the future. The schedule of funding progress, presented as required supplementary information, presents information about whether the actuarial value of plan assets is increasing or decreasing over time, relative to the AAL for benefits.

(I) Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan understood by the Department and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the Department and the plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in AAL and the actuarial value of assets, consistent with the long-term perspective of the calculations. Benefits are a function of civil service credits and the retiree's age.

In the July 1, 2016 actuarial valuation, the entry age normal cost method was used. The actuarial assumptions include 7.25% discount rate, which represents the expected long-term return on plan assets and an annual healthcare cost trend rate of 6.50% initially, reduced by decrements to an ultimate rate of 5.00% over 6 years. Both rates include a 3.00% inflation assumption. The actuarial value of assets was determined using techniques that spread UAAL being amortized as a level percentage of projected payroll over a closed 30-year period, with 19 years remaining.

For the year ended June 30, 2017, there were participating 6,674 retirees, 3,476 spouses, and 9,806 active employees earning service credits in the Plan.

The ARC for fiscal year ended June 30, 2017 of \$94 million is approximately 10.53% of covered payroll.

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(m) Healthcare Reform Legislation

The Patient Protection and Affordable Care Act (PPACA) was signed into law on March 23, 2010. One key provision of the PPACA is the assessment of the excise tax on high-cost plans beginning in 2018. Under this act, a 40% excise tax applies to plans with costs exceeding certain annual thresholds for non-Medicare retirees aged 55–64 (\$11,850 for single coverage, \$30,950 for family coverage). For all other retirees, the thresholds in 2018 are \$10,200 for single coverage and \$27,500 for family coverage. Significant uncertainties exist regarding the impact of the excise tax on high-cost plans without further regulatory guidance. Management estimated the potential impact of this tax on the liability is based on unadjusted thresholds and assuming the tax is shared between the Department and its participants in the same way that the current costs are shared. The estimated impact of the 40% excise tax provision on high-cost plans beginning in 2018, under the healthcare reform, is reflected in all actuarial valuation reports after July 1, 2010.

(n) Disability Benefits

The Water System's allocated share of disability benefit plan costs and administrative expenses totaled \$9.8 million and \$9.9 million for fiscal years 2018 and 2017, respectively. Disability benefits are paid to active employees who qualify under the Plan's provisions and terminate with the employee's retirement.

(9) Other Long-Term Liabilities

The Water System has the following other long-term liabilities:

(a) Accrued Workers' Compensation Claims

Liabilities for unpaid workers' compensation claims are recorded at their net present value when they are probable of occurrence and the amount can be reasonably estimated. The liability is actuarially determined, based on an estimate of the present value of the claims outstanding and an amount for claim events incurred but not reported based upon the Department's loss experience, less the amount of claims and settlements paid to date. The discount rate used to calculate this liability at its present value was 2% at June 30, 2018 and 2.0% as of June 30, 2017. The Department has third-party insurance coverage for workers' compensation claims over \$600,000.

Overall indicated reserves for workers' compensation claims, for both the Water System and the Power System, undiscounted, have increased from \$115 million as of June 30, 2017 to \$120 million as of June 30, 2018. This increase is mainly attributable to the number of open cases filed at the Department. Workers' compensation claims typically take longer than one year to settle and close out. The entire discounted liability is shown as long term on the statements of net position as of June 30, 2018 and 2017.

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Changes in the Department's undiscounted liability since June 30, 2016 are summarized as follows (amounts in thousands):

		June 30		
		2018	2017	2016
Balance at beginning of year	\$	115,104	103,699	95,379
Current year claims and changes in estimates		34,292	37,501	35,268
Payments applied		(29,370)	(26,096)	(26,948)
Balance at end of year	\$	<u>120,026</u>	<u>115,104</u>	<u>103,699</u>

The Water System's portion of the discounted reserves as of June 30, 2018 and 2017 are \$34 million and \$32.0 million, respectively.

(10) Commitments and Contingencies

(a) Purchase Water Commitments

As a member of the Metropolitan Water District (Metropolitan), the Water System purchases water from Metropolitan pursuant to water supply purchase orders entered into with Metropolitan for specific periods. In January 2015, the Water System and Metropolitan executed a new Purchase Order for Imported Water Supply Agreement (the Purchase Order Agreement), which requires the Water System to purchase at least 2,033,134 acre-feet of water over a 10-year period commencing on January 1, 2015 and expiring on December 31, 2024. Some of the key terms of the Purchase Order Agreement include the following: (a) the Water System's annual maximum Tier 1 allocation of water from Metropolitan is 335,663 acre-feet per year, or 3,356,630 acre-feet for the 10-year term of the Purchase Order Agreement; (b) any obligation to pay Metropolitan's Tier 2 supply rate will only be assessed if a member agency exceeds its total 10 year Tier 1 allocation. Under the previous purchase order agreement, Tier 2 costs were assessed on an annual basis, with no ability for member agencies to carry over unused Tier 1 allocation from one year to the next; (c) opportunity to reset the base period demand using a five year rolling average; and (d) an appeals process for agencies with unmet purchase commitments has been established. This will allow each acre-foot of unmet purchase order commitment to be reduced by the amount of production from a local resource project that commences operation on or after January 1, 2014, which will allow member agencies who successfully develop local supplies, not to be charged if production of these supplies negatively impacts their minimum purchase order commitment. As of June 30, 2018, the Water System has purchased 926,580 acre-feet from Metropolitan under the current Purchase Order Agreement. The Water System expects to fulfill the remaining commitment of 1,106,554 acre-feet of water from Metropolitan over the next 6.5 years, which is estimated to cost \$1.274 billion, or approximately \$196 million per year.

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(b) Pollution and Remediation Obligations

The Water System follows GASB Statement No. 49, *Accounting and Financial Reporting for Pollution and Remediation Obligations*. This statement addresses accounting and financial reporting standards for pollution (including contamination) remediation obligations, which are obligations to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities such as site assessments and cleanups. The scope of the statement excludes pollution prevention or control obligations with respect to current operations, and future pollution remediation activities that are required upon retirement of an asset, such as landfill closure and post closure care and nuclear power plant decommissioning. The Water System has identified underground storage tanks that require remediation work and is working with the Los Angeles Regional Water Quality Control Board, and the Lahontan Regional Quality Control Board, which have jurisdiction over these sites. The Water System's estimated liability for these sites is approximately \$8.4 million and includes remediation and ongoing operation and maintenance costs where estimable. There are no estimated recoveries. This liability is recorded as part of the Water System's accrued expenses.

(c) Surface Water Treatment Rule

The State of California Surface Water Treatment Rule (SWTR) imposed increased filtration requirements at any open distribution reservoir exposed to surface water runoff. The Water System had four major reservoirs in its system subject to SWTR: Upper and Lower Hollywood, Lower Stone Canyon, and Encino. To comply with SWTR, the Water System designed projects to remove these reservoirs from regular service through construction of larger pipelines and alternate covered storage facilities.

The Hollywood Water Quality Improvement Project was completed in July 2002. Upper and Lower Hollywood Reservoirs were removed from service and functionally replaced by two 30 million gallon tanks and additional pipelines. Construction of the Encino Water Quality Improvement Project was completed in December 2007. Construction of the Lower Stone Canyon Water Quality Improvement Project was completed in November 2008. The Water System is now in compliance with the SWTR.

(d) Stage 2 Disinfectants and Disinfection Byproduct Rule

In January 2006, the Environmental Protection Agency (EPA) published the Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBP Rule) in the federal register. The Stage 2 DBP Rule strengthens public health protection for customers by tightening compliance monitoring requirements for two groups of disinfection by-products (DBPs): trihalomethanes, and haloacetic acids. DBPs form when naturally occurring materials in water (e.g., decomposing plant material) combine with chemicals added to disinfect the water. DBPs are associated with cancer.

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In order to comply with the requirements of the Stage 2 DBP Rule, the Water System was required to change its primary disinfectant from chlorine to chloramines, a less reactive disinfectant, by April 1, 2014. In order to convert to chloramines, the Department constructed an ultraviolet filtration plant, two chloramination stations, three ammoniation stations, two chlorination stations, and has and will continue to install mixers in tanks and reservoirs. The Water System achieved compliance with the Stage 2 DBP Rule before the April 2014 compliance date. Additional treatment facilities will be constructed, as groundwater sources are improved and/or expanded. The cost of Stage 2 DBP compliance related engineering studies and construction activities is expected to be approximately \$384 million at completion. The actual expenditures to date are \$317 million.

(e) Long-Term 2 Enhanced Surface Water Treatment Rule

In January 2006, the EPA published the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) in the federal register. The LT2 builds upon the Safe Drinking Water Act and other earlier water quality rules to strengthen protection against microbial contaminants, especially Cryptosporidium. Cryptosporidium is a significant concern in drinking water because it contaminates most watersheds used for the collection of drinking water and can cause gastrointestinal illness. The Department has six reservoirs in its system subject to LT2: Ivanhoe, Silver Lake, Elysian, Upper Stone Canyon, Santa Ynez, and Los Angeles. In order to comply with the requirements of the LT2, the Department is proposing to treat, cover, bypass, or build alternate covered storage for the aforementioned reservoirs and to install additional pipelines and related facilities. Santa Ynez and Elysian Reservoirs have now been covered, Silver Lake and Ivanhoe Reservoirs have been removed from service, and Upper Stone Canyon is out of service while the cover is under construction. An ultraviolet filtration plant is under construction at Los Angeles Reservoir. The cost of LT2-compliance-related engineering studies and construction activities is expected to reach \$1.513 billion at completion. The actual cost spent to date has been \$967 million.

(f) Owens Lake

Historically, the Owens River was the main source of water for Owens Lake. Diversion of water from the river, first by farmers in the Owens Valley and then by the City, resulted in the lake drying up. The exposed lakebed became a significant source of particulate matters of 10 micrometers or less in diameter (PM10), causing the U.S. EPA to classify the southern Owens Valley as a serious nonattainment area for PM10 in 1991. The EPA required the Great Basin Unified Air Pollution Control District (District) to prepare a State Implementation Plan (SIP) to bring the region into compliance with the federal Clean Air Act ambient air quality standards by 2006. In 1998, the Department and District entered into a Memorandum of Agreement to mitigate PM10 emission from Owens Lake to bring the region into compliance.

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In the intervening years, the Water System has constructed facilities at the Lake in Phases responding to a series of supplemental control requirements. In November 2014, the Department reached an agreement with the District. The agreement was memorialized in a stipulated judgment that provides several benefits to the Department, including provisions: (1) permitting the use of less water intensive and completely waterless measures to control dust at the lakebed, resulting in more water available for customer use; (2) limiting the City's liability for dust mitigation to no more than 53.4 square miles; (3) forming an Owens Lake Scientific Advisory Panel; (4) addressing the discovery of Native American artifacts on or around the lakebed; and (5) allowing dust control measures to be delayed without a penalty if more are discovered. In accordance with the agreement, the previous SIP was revised and calls for the region to be in compliance with the federal Clean Air Act by December 31, 2017.

The Water System completed construction of the Owens Lake Dust Mitigation Program – Phase 9/10 Project by the compliance deadline of December 31, 2017. The Phase 9/10 Project entailed mitigating dust emissions from an additional 3.62 square miles of Owens Lake playa through use of Gravel Blanket, Managed Vegetation, and Shallow Flooding Best Available Control Measures at a cost of \$268 million. At completion of Phase 9/10 the Department has now controlled dust emission on 48.6 square miles of Owens Lake playa resulting in 99% overall reduction in PM10 emissions. All improvements made to Owens Lake as part of dust mitigation efforts are recorded as Utility Plant in the year made.

(g) Litigation

A number of claims and suits are pending against the Water System for alleged damages to persons and property and for other alleged liabilities arising out of its operations. In the opinion of management, any ultimate liability, which may arise from these actions, is not expected to materially impact the Water System's net position, changes in net position, or cash flows.

(h) Risk Management

The Water System is subject to certain business risks common to the utility industry. The majority of these risks are mitigated by external insurance coverage obtained by the Water System. For other significant business risks, however, the Water System has elected to self-insure. Management believes that exposure to loss arising out of self-insured business risks will not materially impact the Water System's net position, changes in net position, or cash flows.

(i) Credit Risk

Financial instruments, which potentially expose the Water System to concentrations of credit risk, consist primarily of retail receivables. The Water System's retail customer base is concentrated among commercial, industrial, residential, and governmental customers located within the City. Although the Water System is directly affected by the City's economy, management does not believe significant credit risk exists at June 30, 2018, except as provided in the allowance for losses. The Water System manages its credit exposure by requiring credit enhancements from certain customers and through procedures designed to identify and monitor credit risk.

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(In thousands)

(11) Subsequent Events

(a) Bond Sale

In November 2018, the Water System issued \$426.3 million of Water System Revenue Bonds, 2018 Series B, consisting of new money and refunding bonds. The new money net proceeds of \$348.2 million, including a \$43.2 million issue premium, net of underwriter's discount, were deposited into the construction fund to be used for capital improvements. The refunding net proceeds of \$139.1 million, including a \$17.8 million issue premium, net of underwriter's discount, were used to refund all of the \$138.7 million outstanding Water System Revenue Bonds, 2009 Series A.

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Required Supplementary Information

June 30, 2018

(Unaudited)

Schedule of the Water System's Proportionate Share of the Net Pension Liability

Last 10 years*

(Amounts in thousands other than percentages)

	<u>2018**</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Water System's proportion of the collective net pension liability	31.748 %	31.892 %	32.603 %	32.344 %	32.573 %
Water System's proportionate share of the collective net pension liability	\$ 426,444	698,878	373,024	411,485	583,344
Water System's covered-employee payroll	283,300	274,851	273,607	265,192	266,262
Water System's proportionate share of the collective net pension liability as a % of covered payroll	150.53 %	254.27 %	136.34 %	155.16 %	219.08 %
Pension plan's fiduciary net position as a percentage of total pension liability	89.39 %	82.17 %	89.80 %	88.41 %	82.30 %

* The Water System implemented GASB Statement No. 68 *Accounting and Financial Reporting for Pensions*- an amendment to GASB Statement 27, effective July 1, 2013; therefore, no information is available for the measurement periods prior to June 30, 2013.

** The measurement period for each year presented is on a one year lag and thus the measurement periods are June 30, 2013–2017 for the Water Systems' fiscal years June 30, 2014–2018.

See accompanying independent auditors' report.

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Required Supplementary Information

June 30, 2018

(Unaudited)

Schedule of the Department's Pension Contributions *

Last 10 fiscal years

(Amounts in thousands other than percentages)

Reporting date for Water System June 30 ⁽¹⁾	Actuarially determined contributions ⁽²⁾	Contributions in relation to the actuarially required contributions ⁽³⁾	Contributions deficiency (excess)	Covered payroll	Contributions as a percentage of covered employee payroll
2018	\$ 425,512,236	433,412,569	(7,900,333)	953,635,670	45.45 %
2017	403,780,319	391,717,359	12,062,960	892,331,196	43.90
2016	368,599,924	362,359,894	6,240,030	861,818,854	42.05
2015	387,464,759	376,902,022	10,562,737	839,213,254	44.91
2014	387,823,989	384,265,892	3,558,097	819,923,866	46.87
2013	376,667,610	368,426,348	8,241,262	817,421,028	45.07
2012	336,874,865	321,688,919	15,185,946	819,923,866	39.23
2011	304,431,910	286,699,384	17,732,526	791,760,493	36.21
2010	200,578,728	201,034,807	(456,079)	767,912,436	26.18
2009	141,291,588	145,941,275	(4,649,687)	696,704,083	20.95

(1) The measurement date under GASB Statement No. 68 is on a one-year lag.

(2) All actuarially determined contributions through June 30, 2014 were determined as the annual requirement under GASB Statements No. 25 and No. 27.

(3) Contributions do not include administrative expenses paid to the Plan.

* Information in this schedule was not separately available for the Water System.

See accompanying independent auditors' report.

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Required Supplementary Information

June 30, 2018

(Unaudited)

Schedule of Water System's Proportionate Share of the Net OPEB Liability – Retiree Healthcare Plan

Last 10 Fiscal Years

(In thousands)

<u>Reporting Date of Employer</u>	<u>Measurement Date</u>	<u>Proportionate Share of Net OPEB Liability</u>	<u>Proportionate Share of Net OPEB Liability</u>	<u>Projected Compensation</u>	<u>Covered Payroll</u>	<u>Proportionate Share of the Net OPEB liability as a percentage of covered payroll</u>	<u>Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability</u>
2018	2017	31.75 %	\$ 138,297	\$ 314,885	\$ 283,300	48.82 %	81.44 %

See accompanying independent auditors' report.

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June 30, 2018

(Unaudited)

Schedule of Water System's Proportionate Share of the Net OPEB Liability- Death Benefit Plan

Last 10 Fiscal Years

(In thousands)

<u>Reporting Date of Employer</u>	<u>Measurement Date</u>	<u>Proportionate Share of Net OPEB Liability</u>	<u>Proportionate Share of Net OPEB Liability</u>	<u>Projected Compensation</u>	<u>Covered Payroll</u>	<u>Proportionate Share of the Net OPEB liability as a percentage of covered payroll</u>	<u>Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability</u>
2018	2017	31.75 %	\$ 37,852	\$ 314,885	\$ 283,300	13.36 %	18.79 %

See accompanying independent auditors' report.

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Required Supplementary Information

June 30, 2018

(Unaudited)

Schedule of Department Contributions – Retiree Healthcare Plan*

Last 10 fiscal years

(Amounts in thousands other than percentages)

Reporting date for the Water System June 30	Actuarially determined contributions ⁽¹⁾	Contributions in relation to the actuarially required contributions ⁽²⁾	Contributions deficiency (excess)	Covered payroll	Contributions as a percentage of covered employee payroll
2018	85,339	95,233	(9,894)	953,635	9.99
2017	93,920	90,310	3,610	892,332	10.12
2016	61,971	79,896	(17,925)	861,819	9.27
2015	70,748	78,497	(7,749)	839,214	9.35
2014	58,453	74,106	(15,653)	819,924	9.04
2013	36,908	67,563	(30,655)	817,421	8.27
2012	40,095	101,721	(61,626)	805,607	12.63
2011	66,188	140,133	(73,945)	791,760	17.70
2010	56,294	160,237	(103,943)	767,912	20.87
2009	58,718	159,413	(100,695)	696,704	22.88

⁽¹⁾ All actuarially determined contributions through June 30, 2016 were determined as the annual requirement under GASB Statements No. 43 and No. 45.

⁽²⁾ Contributions do not include administrative expenses paid to the Plan.

* Information in this schedule was not separately available for the Water System.

See accompanying independent auditors' report.

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Required Supplementary Information

June 30, 2018

(Unaudited)

Schedule of Department Contributions – Death Benefit Plan **

Last 10 fiscal years

(Amounts in thousands other than percentages)

Reporting date for the Water System June 30	Actuarially determined contributions ⁽¹⁾	Contributions in relation to the actuarially required contributions	Contributions deficiency (excess)	Covered payroll	Contributions as a percentage of covered employee payroll
2018	*	5,496	*	*	*
2017	\$ 7,138	7,138	—	892,332	0.80 %
2016	7,207	7,207	—	861,819	0.84

⁽¹⁾ Contributions do not include administrative expenses paid to the Plan.

* Information for 2018 was not available.

** Information in this schedule was not available separately for the Water System.

See accompanying independent auditors' report.

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Required Supplementary Information

June 30, 2018

(Unaudited)

Postemployment Healthcare Plan – Schedule of Funding Progress (GASB Statement No. 45)

The following schedule provides information about the Department’s overall progress made in accumulating sufficient assets to pay benefits when due prior to allocations to the Water System and the Power System (amounts in thousands):

Actuarial valuation date July 1	Actuarial value of assets	Actuarial accrued liability	Unfunded AAL	Funded ratio	Covered payroll	UAAL as a percentage of covered payroll
2017	\$ 1,898,137	\$ 2,347,484	\$ 449,347	81 %	\$ 991,815	45 %
2016	1,752,195	2,334,043	581,848	75	928,889	63

See accompanying independent auditors’ report.