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CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Financial Statements and
Required Supplementary Information

June 30, 2017 and 2016

(With Independent Auditors' Report Thereon)

CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

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KPMG LLP
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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, 2017 and 2016, 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, 2017 and 2016, 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.

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Emphasis of Matter

As discussed in note 1 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, 2017 and 2016, 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.

Other Matter

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3-15 and the other required supplementary information on pages 76-78, 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 November 30, 2017 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 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 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
November 30, 2017

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, 2017 and 2016. 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 16.

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, 2017 and 2016. 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, 2017 and 2016.

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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, 2017, 2016, and 2015:

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

(Amounts in millions)

		June 30		
		2017	**2016**	**2015**
Assets and Deferred Outflows				
Utility plant, net	$	7,554	7,013	6,513
Investments		50	34	34
Other noncurrent assets		1,195	1,257	1,008
Current assets		973	903	752
Deferred outflows		527	259	295
Total assets and deferred outflows	$	10,299	9,466	8,602
Net Position				
Net position:				
Net investment in capital assets	$	2,367	2,204	2,086
Restricted		413	400	377
Unrestricted		356	392	378
Total net position		3,136	2,996	2,841
Liabilities and Deferred Inflows				
Long-term debt, net of current portion		5,468	5,162	4,497
Other long-term liabilities		731	402	437
Current liabilities		831	692	501
Deferred inflows – debt refunding		15	13	—
Deferred inflows – pension		118	201	326
Total liabilities and deferred inflows		7,163	6,470	5,761
Total net position, liabilities, and deferred inflows	$	10,299	9,466	8,602

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

(Amounts in millions)

	Year ended June 30		
	2017	**2016**	**2015**
Operating revenues:			
Residential	$ 450	458	432
Multiple-dwelling units	339	340	331
Commercial and industrial	265	278	269
Other	65	56	50
Total operating revenues	1,119	1,132	1,082
Operating expenses:			
Purchased water	$ (195)	(262)	(273)
Maintenance and other operating expenses	(506)	(474)	(460)
Depreciation and amortization	(157)	(144)	(137)
Total operating expenses	(858)	(880)	(870)
Operating income	261	252	212
Nonoperating revenues (expense):			
Investment income	3	9	6
Federal bond subsidies	17	17	17
Other nonoperating revenues, net	15	3	2
Debt expense, net	(187)	(173)	(164)
Total nonoperating revenues (expense), net	(152)	(144)	(139)
Income before capital contributions	109	108	73
Capital contributions	31	47	34
Increase in net position	140	155	107
Beginning balance of net position	2,996	2,841	2,734
Ending balance of net position	$ 3,136	2,996	2,841

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 2017 and 2016, the Water System's net utility plant increased $541 million and $500 million, respectively. Net utility plant consists of significant investments in water infrastructure less accumulated depreciation.

During 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. 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.

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

(Continued)

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.

For fiscal year 2016, utility plant additions were $641 million. Of this increase, $577 million was transferred from CWIP and the remaining increases were direct additions. Direct additions are mostly related to improvements in distribution infrastructure as part of the Department's reliability program. Many of the Department'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.

Additions from CWIP are mostly for additional source of water supply and distribution system assets. During fiscal year 2016, the Water System invested $353 million in the Owens Lake Dust Control Program, which includes installing dust control measures, the installation of a fence in seven dust control areas; and the provision of dust control on 3.61 square miles of lakebed using shallow flood, gravel, and managed vegetation. Also contributing to the source of water supply additions and betterments is the pressurization of the lower reach of the River Supply Conduit.

In 2016, the balance of assets in distribution infrastructure was increased by $339 million, which was mainly due to the planning, design, and construction of the Headworks Underground Reservoir; the replacement of deteriorated and obsolete mains; the installation of water service connections and the enlargement of existing services; and the continued replacement of meters with lead-free meters and fittings. With the completion of these large projects, amounts transferred out of CWIP to depreciable assets totaled $577 million.

In 2016, accumulated depreciation increased $142 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 source of supply and distribution 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

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 potable water delivered from the major sources:

Table 3 – Sources of Potable Water

Supplied during Fiscal years 2017, 2016, and 2015

	Fiscal year 2017		Fiscal year 2016		Fiscal year 2015	
	Millions of gallons	Percentage	Millions of gallons	Percentage	Millions of gallons	Percentage
Source:						
Aqueduct	69,274	43%	16,640	11%	17,448	10%
Wells	16,695	10	25,759	16	31,443	18
Purchases	71,593	45	112,667	71	125,615	70
Recycled water	2,616	2	3,229	2	3,394	2
	160,178	100%	158,295	100%	177,900	100%

Fiscal year 2017 was an above average wet year that contributed to an increased snowpack of more than 200% of normal. This allowed the Department to increase the supply of water from the Aqueduct assets 32% over 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 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.

During fiscal year 2016, other noncurrent assets increased $240 million due to an increase of $310.2 million of restricted cash and cash equivalents for construction purposes, a $129.5 million decrease in the regulatory asset for pension, offset by a $52.1 million increase in other regulatory assets due to irrigation and reclaimed water upgrades and high-efficiency toilet rebates, and a $6.9 million increase in the postemployment benefit asset due to department contributions exceeding actuarially required contributions.

Current Assets

During fiscal year 2017, current assets increased $60 million mostly due to a $32 million increase in under recovered costs caused by less consumption during the year and a $15 million increase in restricted cash for debt service purposes due to the July 2017 debt service payment being larger than the July 2016 payment.

During fiscal year 2016, current assets increased $161 million mostly due to a $154 million increase in under recovered costs and a $23 million increase in unbilled revenue, offset by lower unrestricted cash of $31 million.

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Net Position, Liabilities, and Deferred Inflows

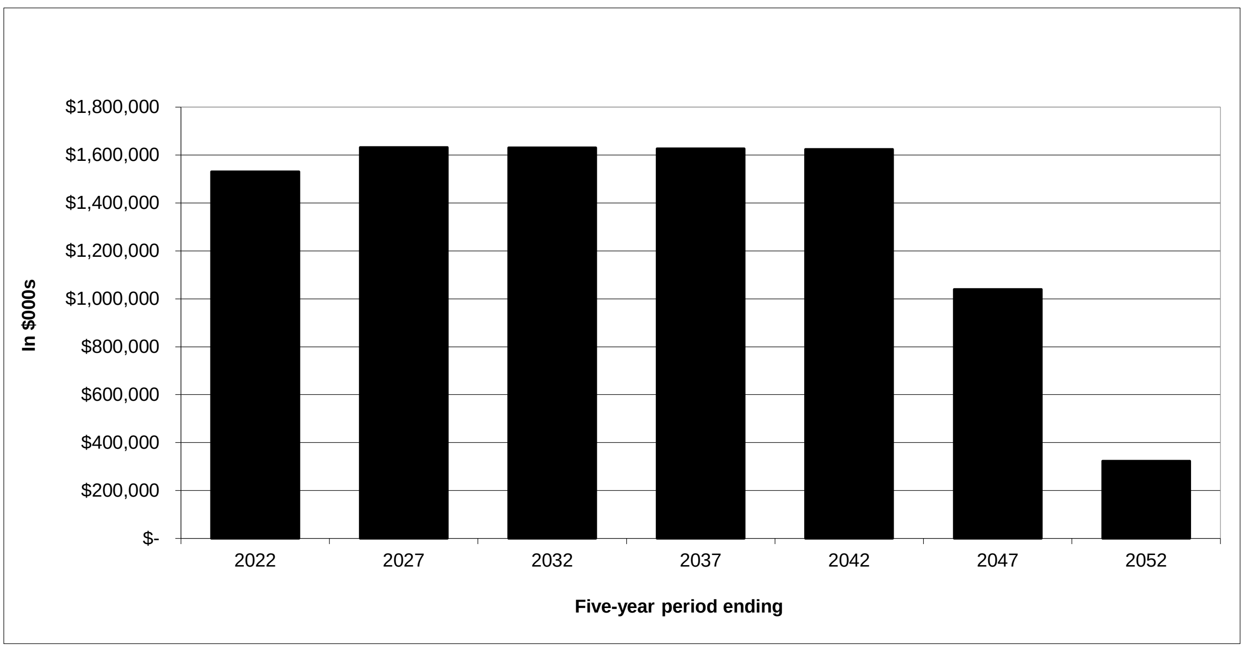
Long-Term Debt

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.

As of June 30, 2016, the Water System's total outstanding long-term debt balance, including the current portion was approximately $5.25 billion. This is an increase of $681 million over the prior year, resulting from the sale of $894 million in Water System revenue bonds plus $172 million in bond issue premiums and $73 million in loans from the SWRCB, offset by scheduled maturities of $46 million, defeasance of $382 million, and $31 million of amortized premiums and discounts.

Scheduled payments of principal, plus scheduled interest as of June 30, 2017, are shown in the chart below:

Chart: Debt Service Requirements



In April 2017, 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.

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 Water System debt service coverage for fiscal years 2016–2017 was 1.74.

Other Long-Term Liabilities

The Water System's pension liability increased $326 million from fiscal year 2016 to 2017 and decreased $38 million from 2015 to 2016 due to the pension activity below:

		Fiscal year ending		
Description		**2017**	**2016**	**2015**
Beginning, net pension liability	$	373,024	411,485	583,344
Pension expense		101,415	(8,782)	31,187
Employer contributions		(119,639)	(125,944)	(129,061)
New net deferred inflows/outflows		309,737	37,376	(99,780)
Recognition of prior deferred inflows/outflows		34,341	58,889	25,795
Ending, net pension liability	$	698,878	373,024	411,485

The net pension liability increased due to the less than 1% return recognized on the market value of assets and to changes in actuarial assumptions. 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 5 to 6 years in fiscal years 2017 and 2016.

Current Liabilities

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.

During fiscal year 2016, current liabilities increased $191 million primarily due to a $150 million increase in the Department's line of credit used by the Water System, $24 million in customer deposits, and $16 million in current portion of long term debt.

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 2017, 2016, and 2015:

Table 4 – Revenue and Percentage of Revenue by Customer Class

(Amounts in thousands)

	Fiscal year 2017		Fiscal year 2016		Fiscal year 2015	
	Revenue	Percentage	Revenue	Percentage	Revenue	Percentage
Type of customer:						
Residential	$ 450,384	40 %	$ 457,961	40 %	$ 431,944	40%
Multiple-dwelling units	338,623	30	339,787	30	331,238	30
Commercial	224,743	20	234,728	21	223,504	21
Industrial	39,947	4	43,057	4	45,467	4
Other, net of uncollectible accounts	64,850	6	56,244	5	50,428	5
	$ 1,118,547	100 %	$ 1,131,777	100 %	$ 1,082,581	100%

Residential customers, including those in multiple-dwelling units, provided approximately 70% of the Water System's 2017, 2016 and 2015 revenue, respectively, representing the largest class of customers. As of June 30, 2017, the Water System had approximately 680,000 customers. As shown in table 5 below, 487,000, or 71%, of total customers were in the residential customer class as of June 30, 2017, 2016, and 2015:

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

(Numbers in thousands)

	Fiscal year 2017		Fiscal year 2016		Fiscal year 2015	
	Number	Percentage	Number	Percentage	Number	Percentage
Type of customer:						
Residential	487	71 %	484	71 %	483	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	7	1	8	1	7	1
	680	100 %	678	100 %	676	100%

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.

During fiscal year 2016, operating revenue increased by $49.2 million, or 4.5%, from fiscal year 2015, due to an increase in project costs funded through pass-through revenue of $162.4. The increase was offset by lower billed revenue of $113.2, as compared to 2015, due to lower sales of water of 21.3 million in hundred cubic feet, or 9.8%, as compared to 2015.

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. Fiscal year 2017 was an above-average wet year that contributed to an increased snowpack, which allowed the Department to increase the supply of water from the aqueduct. Because of the increased snowpack, purchased water costs decreased $67.2 million, or -25.7%, in purchases of water from the Metropolitan Water District. 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 8 for a summary of sources of potable water.

Table 6 below summarizes the Water System's operating expenses for fiscal years 2017, 2016, and 2015:

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

(Amounts in thousands)

	Fiscal year 2017		Fiscal year 2016		Fiscal year 2015	
	Expenses	**Percentage**	**Expenses**	**Percentage**	**Expenses**	**Percentage**
Type of expense:						
Purchased water	$ 194,699	23 %	$ 261,971	30 %	$ 273,132	31 %
Other operating expenses	354,787	41	334,545	38	323,655	37
Maintenance	151,123	18	139,253	16	136,496	16
Depreciation and amortization	156,809	18	144,186	16	136,559	16
	$ 857,418	100 %	$ 879,955	100 %	$ 869,842	100 %

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.

Fiscal Year 2016

Fiscal year 2016, maintenance and other operating expenses were $14 million higher as compared to the prior year. The increase was due to a $12.3 million increase in customer accounting and collection expenses, a $3.3 million increase administrative and general expenses due to higher legal, special services, and environmental costs, offset by a $1.2 million decrease in maintenance expenses.

Purchased water decreased by $11.1 million as compared to the prior year. Consumption of water was 21.3 million in hundred cubic feet lower year over year.

Nonoperating Revenue and Expenses

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.

Fiscal Year 2016

Compared to the prior fiscal year, fiscal year 2016's nonoperating revenue and nonoperating expenses were $3.8 million higher and $0.4 million lower, respectively. The $3.0 million increase in investment income can be attributed to changes in the market values of investments.

Debt costs, excluding the allowance for funds used during construction, increased $7.8 million year over year. The $7.8 million net increase resulted from a $9.3 million increase in interest expense, due to the issuances of new debt, reduced by debt amortization expenses of $1.5 million.

Capital contributions increased by $12.0 million primarily due to receiving State of California Proposition 84 funding in stormwater matching grants.

CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Statements of Net Position

June 30, 2017 and 2016

(Amounts in thousands)

Assets and Deferred Outflows	2017	2016
Noncurrent assets:		
Utility plant:		
Source of water supply	$ 1,975,048	1,939,935
Pumping	290,584	284,509
Purification	818,277	804,492
Distribution	5,069,620	4,815,614
General	760,627	721,050
Total	8,914,156	8,565,600
Accumulated depreciation	(2,762,711)	(2,613,961)
Total	6,151,445	5,951,639
Construction work in progress	1,402,561	1,061,382
Total	7,554,006	7,013,021
Investments	50,011	33,706
Cash and cash equivalents – restricted	406,237	456,859
Regulatory assets – other	176,800	158,984
Regulatory asset – pension	293,212	320,481
Net other postemployment benefit asset	318,205	320,463
Total noncurrent assets	8,798,471	8,303,514
Current assets:		
Cash and cash equivalents – unrestricted	317,198	312,009
Cash and cash equivalents – restricted	161,302	137,252
Cash collateral received from securities lending transactions	3,779	7,486
Customer and other accounts receivable, net of $61,200 and $50,283 allowance for losses for 2017 and 2016, respectively	81,721	80,458
Under recovered costs	266,231	233,730
Accrued unbilled revenue	96,632	92,248
Materials and supplies	24,053	19,784
Prepayments and other current assets	21,861	20,447
Total current assets	972,777	903,414
Total assets	9,771,248	9,206,928
Deferred outflows – debt refunding	26,335	28,420
Deferred outflows – pension	373,459	112,511
Deferred outflows – pension contributions made after measurement date	127,470	118,425
Total deferred outflows	527,264	259,356
Total assets and deferred outflows	$ 10,298,512	9,466,284

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CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Statements of Net Position

June 30, 2017 and 2016

(Amounts in thousands)

Net Position, Liabilities, and Deferred Inflows	**2017**	**2016**
Net position:		
Net investment in capital assets	$ 2,367,436	2,203,533
Restricted:		
Debt service	66,005	51,200
Other postemployment benefits	318,205	320,463
Other purposes	29,171	28,171
Unrestricted	355,367	392,316
Total net position	3,136,184	2,995,683
Long-term debt, net of current portion	5,467,914	5,162,410
Other noncurrent liabilities:		
Accrued workers' compensation claims	32,021	29,329
Net pension liability	698,878	373,024
Total other noncurrent liabilities	730,899	402,353
Current liabilities:		
Current portion of long-term debt	101,251	87,190
Accounts payable and accrued expenses	114,699	131,390
Line of credit	250,000	150,000
Due to Power System	8,602	7,918
Accrued employee expenses	62,106	55,781
Accrued interest	101,068	89,767
Obligations under securities lending transactions	3,779	7,486
Customer deposits	189,205	162,127
Total current liabilities	830,710	691,659
Total liabilities	7,029,523	6,256,422
Deferred inflows – debt refunding	14,971	13,215
Deferred inflows – pension	117,834	200,964
Total deferred inflows	132,805	214,179
Total net position, liabilities, and deferred inflows	$ 10,298,512	9,466,284

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, 2017 and 2016

(Amounts in thousands)

	2017	2016
Operating revenues:		
Residential	$ 450,384	457,961
Multiple-dwelling units	338,623	339,787
Commercial and industrial	264,690	277,786
Other	78,487	69,096
Uncollectible accounts	(13,637)	(12,853)
Total operating revenues	1,118,547	1,131,777
Operating expense:		
Purchased water	194,699	261,971
Maintenance and other operating expenses	505,910	473,798
Depreciation and amortization	156,809	144,186
Total operating expenses	857,418	879,955
Operating income	261,129	251,822
Nonoperating revenues:		
Investment income	3,262	8,564
Federal bond subsidies	17,252	17,270
Gain on sale of land	141	—
Other nonoperating income	19,513	6,653
Total nonoperating revenues	40,168	32,487
Other nonoperating expenses	(5,191)	(4,208)
Nonoperating revenues, net	34,977	28,279
Debt expenses:		
Interest on debt	194,501	181,343
Allowance for funds used during construction	(7,713)	(8,661)
Total debt expenses	186,788	172,682
Income before capital contributions	109,318	107,419
Capital contributions	31,183	46,752
Increase in net position	140,501	154,171
Net position:		
Beginning of year	2,995,683	2,841,512
End of year	$ 3,136,184	2,995,683

See accompanying notes to financial statements.

CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Statements of Cash Flows

Years ended June 30, 2017 and 2016

(Amounts in thousands)

		2017	2016
Cash flows from operating activities:			
Cash receipts:			
Cash receipts from customers	$	1,147,285	1,016,864
Cash receipts from customers for other agency services		550,778	559,405
Cash receipts from interfund services provided		489,925	509,994
Other cash receipts		5,250	—
Cash disbursements:			
Cash payments to employees		(286,551)	(271,899)
Cash payments to suppliers		(448,081)	(407,096)
Cash payments for interfund services used		(664,030)	(669,916)
Cash payments to other agencies for fees collected		(552,364)	(547,023)
Other cash payments		—	(5,867)
Net cash provided by operating activities		242,212	184,462
Cash flows from capital and related financing activities:			
Additions to plant and equipment		(687,490)	(614,382)
Capital contributions		31,183	40,072
Principal payments and maturities on long-term debt		(43,295)	(29,032)
Proceeds from issuance of bonds and line of credit		584,837	831,631
Proceeds from California State Water Resources Control Board loan		71,511	73,365
Payments of California State Water Resources Control Board loan		(18,096)	(16,572)
Debt interest payments		(206,288)	(200,876)
Federal bond subsidies		17,252	17,270
Net cash (used in) provided by capital and related financing activities		(250,386)	101,476
Cash flows from investing activities:			
Purchases of investment securities		(83,622)	(86,676)
Sales of investment securities		67,233	86,751
Investment income		3,180	8,293
Net cash (used in) provided by investing activities		(13,209)	8,368
Net (decrease) increase in cash and cash equivalents		(21,383)	294,306
Cash and cash equivalents:			
Cash and cash equivalents at beginning of year		906,120	611,814
Cash and cash equivalents at end of year	$	884,737	906,120

(Continued)

CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Statements of Cash Flows

Years ended June 30, 2017 and 2016

(Amounts in thousands)

		2017	2016
Reconciliation of operating income to net cash provided by operating activities:			
Operating income	$	261,129	251,822
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization		156,809	144,186
Provision for losses on customer and other receivables		13,637	12,853
Changes in assets and liabilities:			
Customer and other accounts receivable		(14,733)	(7,452)
Accrued unbilled revenue		(4,384)	(23,206)
Under recovered costs		(32,501)	(154,475)
Due to Power System		684	4,019
Materials and supplies		(4,269)	(440)
Regulatory assets – other		(17,816)	(52,073)
Accounts payable and accrued expenses for operating		(169,282)	(16,487)
Prepayment and other current assets		(1,414)	(767)
Net other postemployment benefit asset		2,258	(6,931)
Customer deposits		27,078	24,265
Accrued employee expenses		6,325	1,196
Deferred outflow – pensions		(269,993)	33,823
Regulatory assets – pensions		27,269	129,522
Net pension liability		325,854	(38,461)
Deferred inflows – pensions		(83,130)	(124,884)
Accrued workers' compensation claims and other		18,691	7,952
Net cash provided by operating activities	$	242,212	184,462

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. 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.

During the year ended June 30, 2016, the Water System issued revenue bonds to finance capital improvements and refund previously issued debt. The $381.1 million of proceeds were deposited immediately into an irrevocable trust for the defeasance of $382.2 million of debt. The net gain on refunding, after the write-off previously recorded unamortized premiums, resuled in $13.3 million, which will be amortized over the debt repayment period.

		2017	2016
Accounts payable related to capital expenditures	$	2,591	13,722

See accompanying notes to financial statements.

(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, 2017 and 2016, 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.

(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 Department 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 Department 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 Department 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, 2017 and 2016.

(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

(Continued)

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, 2017 and 2016, restricted cash and cash equivalents include the following (amounts in thousands):

		June 30	
		2017	2016
Bond redemption and interest funds	$	155,881	131,831
Other restricted funds		5,421	5,421
Cash and cash equivalents – current portion		161,302	137,252
Self-insurance fund		23,750	22,750
Bond redemption funds		11,256	9,201
Construction funds		371,231	424,908
Cash and cash equivalents – noncurrent		406,237	456,859
Total restricted cash and cash equivalents	$	567,539	594,111

(h) Materials and Supplies

Materials and supplies are recorded at average cost.

(i) 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.

(j) Investments

The Department 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.

(k) 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, 2017 and 2016 (amounts in thousands):

		June 30	
		2017	**2016**
Type of expense:			
Accrued payroll	$	14,203	13,017
Accrued vacation		32,741	29,268
Accrued sick time		6,449	6,070
Compensatory time		8,713	7,426
Total	$	62,106	55,781

(l) 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.

(m) Accrued Workers' Compensation Claims

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

(n) 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 $189 million and $162 million as of June 30, 2017 and 2016, respectively, for all customer deposits collected.

(o) 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 $266 million and $234 million of under recovered costs in the accompanying statements of net position as of June 30, 2017 and 2016, respectively.

(p) 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.

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.

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.

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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.

(q) Capital Contributions

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

(r) 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, 2017 and 2016, the average AFUDC rates used by the Water System were 3.3% and 3.1%, respectively.

(s) 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.

(t) 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

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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.

(u) Other Retirement Plan Benefits

Eligible employees of the Water System are members of the Plan, which comprise a single-employer defined-benefit plan and a system of benefits. In addition to pension benefits, retirees can also receive healthcare and death benefits. The level of benefits is determined based on their years of civil service, age, and to which pension tier they belong. Active employees who qualify for disability can receive permanent disability in accordance with the plan provisions up until retirement and temporary disability for up to 24 months.

(v) Reclassifications

Certain reclassifications have been made to 2016 amounts to conform to the 2017 financial statement presentation. 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 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. This statement is effective for the Water System next fiscal year. The Water System is currently evaluating the effects the adoption of this statement will have on the financial statements.

(b) 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*. 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 No. 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. This statement is effective for the Water System next fiscal year. The Water System is currently evaluating the effects the adoption of this statement will have on the financial statements.

(c) 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 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 base on the guidance of this statement. This statement is effective for the Water System next fiscal year. The Water System is currently evaluating the effects the adoption of this statement will have on the financial statements.

(3) Utility Plant

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	1,233,158	480,113	(10)	(138,934)	1,574,327
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	34,636	(4,919)	9,860	744,057
Total depreciable utility plant	8,393,824	215,044	(5,412)	138,934	8,742,390
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	(2,613,961)	(154,162)	5,412	—	(2,762,711)
Total utility plant, net	$ 7,013,021	540,995	(10)	—	7,554,006

The Water System had the following activity in utility plant during fiscal year 2016 (amounts in thousands):

		Balance, July 1, 2015	Additions	Retirements and disposals	Transfers	Balance, June 30, 2016
Nondepreciable utility plant:						
Land and land rights	$	154,371	17,405	—	—	171,776
Construction work in progress		1,182,001	456,187	—	(576,806)	1,061,382
Total nondepreciable utility plant		1,336,372	473,592	—	(576,806)	1,233,158
Depreciable utility plant:						
Source of water supply		1,469,752	12,974	—	342,842	1,825,568
Pumping		266,718	5,942	—	9,751	282,411
Purification		777,853	17,729	—	34	795,616
Distribution		4,447,107	122,666	(5,858)	221,834	4,785,749
General		697,993	8,109	(3,967)	2,345	704,480
Total depreciable utility plant		7,659,423	167,420	(9,825)	576,806	8,393,824
Accumulated depreciation:						
Source of water supply		(333,361)	(29,962)	—	—	(363,323)
Pumping		(123,838)	(5,064)	—	—	(128,902)
Purification		(200,458)	(13,571)	—	—	(214,029)
Distribution		(1,485,052)	(67,978)	5,858	—	(1,547,172)
General		(339,322)	(25,180)	3,967	—	(360,535)
Total accumulated depreciation		(2,482,031)	(141,755)	9,825	—	(2,613,961)
Total utility plant, net	$	6,513,764	499,257	—	—	7,013,021

Depreciation and amortization expense during fiscal years 2017 and 2016 were $156.8 million and $144.2 million, respectively. Depreciation and amortization expense on the statements of cash flows includes amortization expense on software and regulatory assets, which is not included in additions to accumulated depreciation in the tables above.

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

(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		July 1, 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
(e) Under recovered costs		233,730	32,501	—	266,231
Total	$	713,195	62,475	(39,427)	736,243

Description		July 1, 2015	Additions	Reductions	June 30, 2016
Assets:					
(a) Regulatory assets – water conservation rebates	$	67,809	44,161	(6,445)	105,525
(b) Regulatory assets – stormwater capture program		39,102	—	(1,959)	37,143
(c) Regulatory assets – customer care and billing system		—	19,250	(2,934)	16,316
Regulatory assets – other		106,911	63,411	(11,338)	158,984
(d) Regulatory assets – Pension		450,003	—	(129,522)	320,481
(e) Under recovered costs		79,255	154,475	—	233,730
Total	$	636,169	217,886	(140,860)	713,195

(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. The balance of the Water Conservation costs at June 30, 2017 and 2016 is $113,498 and $105,525 net of annual amortization of $9,258 and $6,445, respectively.

(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. The balance of the Stormwater Capture Program costs at June 30, 2017 and 2016 is $35,489 and $37,143, net of annual amortization of $1,654 and $1,959 respectively.

(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. The balance of CC&B costs at June 30, 2017 and 2016 is $27,813 and $16,316, net of annual amortization of $1,246 and $2,934, respectively.

(Continued)

(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 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 and totaled $27,269 and $129,522 for the years ended June 30, 2017 and 2016, respectively.

(e) Regulatory Assets – Under Recovered Costs

As provided in the Water System Rate Ordinance, the Department 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 Department has incurred. The balance of under recovered costs at June 30, 2017 and 2016 is $266,231 and $233,730, respectively.

(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 2017	June 30 2016
Water Expense Stabilization Fund	$	50,011	33,706

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.

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	—	—
	$	50,011	6,098	4,501	28,627	10,785

As of June 30, 2016, 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 agencies	$	19,784	4,200	2,999	1,004	11,581
Medium-term corporate notes		5,007	1,000	—	4,007	—
Commercial paper		1,499	—	999	500	—
Negotiable CDs		4,001	2,000	—	2,001	—
California state bonds		1,002	—	—	1,002	—
California local agency bonds		1,517	—	515	1,002	—
Other state bonds		502	—	502	—	—
Money market fund		394	394	—	—	—
	$	33,706	7,594	5,015	9,516	11,581

(ii) Interest Rate Risk

The Department'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 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 Department 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, 2017 and 2016, 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 Department'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, 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 Department'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, 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. Of the Water System's investments in corporate notes as of June 30, 2016, $2,003,036 (40%) was rated in the category of AA and $3,004,394 (60%) was rated in the category of A by at least one NRSRO.

The Department'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, 2017 and 2016, 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.

The Department'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, 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. Of the Water System's investments in municipal bonds as of June 30, 2016, $1,516,905 (100%) was rated in the category of AA by at least one NRSRO

The Department'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, 2017 and 2016, 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 Department'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, 2017 and June 30, 2016, 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 Department'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, 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. As of June 30, 2016, 100% of the Water System's investments in obligations of states other than California was rated in the rating category of AA by at least one NRSRO.

The Department'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, 2017 and 2016, the money market funds in the portfolio had attained the highest possible ratings by at least two NRSROs.

(iv) Concentration of Credit Risk

The Department'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, 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.

Of the Water System's total investments as of June 30, 2016, $7,309,669 (22%) was invested in securities issued by the Federal Home Loan Bank; $6,461,749 (19%) was invested in securities issued by the Federal National Mortgage Association; and $5,011,993 (15%) was invested in securities issued by the Federal Home Loan Mortgage Corporation.

(v) Custodial Risk

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

(vi) Fair Value Measurements

The Department 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 Department 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.

	June 30, 2017	Fair value using: Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Not classified
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	38,017	998	37,019	—	—
Other:					
Commercial paper	4,991	—	4,991	—	—
Certificate of deposit	7,003	—	7,003	—	—
Total other	11,994	—	11,994	—	—
Total investments	$ 50,011	998	49,013	—	—

		Fair value using			
	June 30, 2016	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Not classified
Investments by fair value level:					
Debt securities:					
U.S. government agencies	$ 19,784	—	19,784	—	—
Medium-term corporate notes	5,007	—	5,007	—	—
California state bonds	1,002	—	1,002	—	—
California local agency	1,517	—	1,517	—	—
Other state bonds	502	—	502	—	—
Total debt securities	27,812	—	27,812	—	—
Other:					
Commercial paper	1,499	—	1,499	—	—
Certificate of deposit	4,001	—	4,001	—	—
Money market funds	394	—	—	—	394
Total other	5,894	—	5,500	—	394
Total investments	$ 33,706	—	33,312	—	394

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, 2017 and 2016, the Water System’s share of the City’s general and special investment pool was $888,516 and $913,606, which represents approximately 8.7% and 9.2% 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.

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

		As of June 30,	
		2017	**2016**
Cash and cash equivalents – unrestricted	$	317,198	312,009
Cash and cash equivalents – restricted		161,302	146,453
Cash and cash equivalents – restricted noncurrent		406,237	447,658
Subtotal cash and cash equivalents per cash flow		884,737	906,120
Cash – securities lending transactions		3,779	7,486
	$	888,516	913,606

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.

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):

		Investment maturities				
Type of investments	Amount	1 to 30 Days	31 to 60 Days	61 to 365 Days	366 Days To 5 Years	Over 5 Years
U.S. Treasury notes	$ 4,784,091	—	—	2,812	4,761,266	20,013
U.S. agencies securities	1,468,181	182,345	220,935	560,889	469,324	34,688
Medium-term notes	1,440,354	—	—	190,051	1,250,303	—
Mutual funds	7,251	7,251	—	—	—	—
Commercial paper	1,418,931	732,478	238,464	447,989	—	—
Municipal bonds	79,683	—	—	—	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	$ 10,270,811	1,728,114	474,399	1,233,496	6,780,101	54,701

Interest Rate Risk. The Policy limits the maturity of its investments to five years for the 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. agencies (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. agencies 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 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 was 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 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 $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 nationally recognized rating agencies. The City's $7.3 million investment in mutual funds 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 be invested in commercial paper or bankers' acceptances, 30% in certificates of deposit or medium-term notes, 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 as of June 30, 2017, $693.8 million (6.8%) was invested in securities issued by Federal Home Loan Bank.

(Continued)

The following table identifies the investment types that are authorized by the Policy as of June 30, 2017 and 2016:

	Maximum maturity A	Maximum specified percentage of portfolio B	Minimum credit quality requirements
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 NRSRO [F] , A–1
Commercial paper – nonpooled funds * [D]	270 Days	25% of the agency's money [E]	Highest letter and number rating by NRSRO [F,] A–1
Nonnegotiable certificates of deposits	5 Years	None	None
Placement service deposits	5 Years	30% H (inclusive of placement service CD)	None
Placement service certificate of deposits	5 Years	30% H (combined with negotiable CD)	None
repurchase agreements	1 Year	None	None
Reverse repurchase agreements and securities lending	92 Days I	20 %	None [J]
Medium-term notes * [K]	5 Years	30 %	"A" Rating
Mutual funds and money market mutual funds	N/A	20% L	Multiple [M N]
Collateralized bank deposits	5 Years	None	None
Mortgage pass-through securities	5 Years	20 %	"AA" Rating [O]
County pooled investments funds	N/A	None	None
Joint powers authority pool	N/A	None	Multiple [P]
Local agency investment fund (LAIF)	N/A	None	None
Voluntary investment program fund [Q]	N/A	None	None
Supranational obligations [R]	5 Years	30 %	"AA" Rating

* This 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 pool 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% 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. Sections 53601.8, 53635.8, and 53601(i). Excluding purchases of certificates of deposit pursuant to Section(s) 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.

[I] 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.

[J] Reverse repurchase agreements must be made with primary dealers of the Federal Reserve Bank of New York or with a nationally 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.

[K] "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 United States or by depository institutions licensed by the United States or any state and operating within the United States."

[L] No more than 10% invested in any one mutual fund.

[M] 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 Securities and Exchange Commission (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.

[N] A money market mutual fund must receive the highest ranking by not less than two NRSROs 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.

[O] Issuer must be rated in the category "AA", or its equivalent or better, as provided by a nationally recognized rating agency.

[P] A joint powers authority pool 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 Section 53601, subdivisions (a) to (o).

[Q] 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.

[R] Only those obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, and Inter-American Development Bank.

General Investment Pool Securities Lending Program (the SLP). Securities lending is permitted and limited under provisions of California Government Code Section 53601. The Council approved the 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.

(Continued)

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 (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 (the Pool) is available for lending. The City loans out U.S. Treasury notes, U.S. agencies securities, 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 2017, 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.

The following table provides information on securities lent and collateral received as of June 30, 2017 and 2016 (in thousands):

		2017	2016
Type of investment lent:			
For cash collateral:			
U.S. agencies securities	$	40,648	10,258
U.S. Treasury notes		1,012	142,280
Supranational coupons		24,014	8,054
Medium-term notes		—	2,339
Total lent for cash collateral		65,674	162,931
For noncash collateral:			
U.S. Treasury notes		981,789	415,604
U.S. agencies securities		31,397	161,334
Medium-term notes		—	1,364
Total lent for noncash collateral		1,013,186	578,302
Total securities lent	$	1,078,860	741,233
Type of collateral received:			
Cash collateral *	$	67,115	166,278
Noncash collateral **			
For lent U.S. Treasury notes, U.S. agencies securities, and supranational coupons		1,037,782	589,880
Total collateral received	$	1,104,897	756,158

* 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 the fiscal years 2017 and 2016.

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

At June 30, 2016, the investments held in the City Treasury's General and Special Investment Pool Programs and their maturities are as follows (in thousands):

		Investment maturities				
Type of investments	**Amount**	**1 to 30 days**	**31 to 60 days**	**61 to 365 days**	**366 Days to 5 years**	**Over 5 years**
U.S. Treasury bills	$ 206,762	144,991	34,991	26,780	—	—
U.S. Treasury notes	4,695,497	—	—	36,463	4,631,290	27,744
U.S. agencies securities	1,362,106	335,597	130,941	430,867	445,957	18,744
Medium-term notes	1,321,557	20,008	—	115,563	1,185,986	—
Mutual fund	126,632	126,632	—	—	—	—
Negotiable certificates of deposit	10,000	10,000	—	—	—	—
Commercial paper	1,617,998	1,166,671	391,383	59,944	—	—
Municipal bonds	60,885	—	—	—	60,885	—
Supranational obligations	242,182	13,971	16,190	70,068	141,953	—
Short-term investment funds	170,261	170,261	—	—	—	—
Securities lending short-term repurchase agreement	166,278	166,278	—	—	—	—
Total general and special pools	$ 9,980,158	2,154,409	573,505	739,685	6,466,071	46,488

Interest Rate Risk. The Policy limits the maturity of its investments to five years for the U.S. Treasury and government agency securities, 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. agencies (U.S. – government-sponsored enterprises) securities. The City's $1 billion investments in U.S.- government-sponsored enterprises consist of securities issued by the Federal Home Loan Bank – $633 million, Federal National Mortgage Association (Fannie Mae) – $428 million, Federal Home Loan Mortgage Corporation (Freddie Mac) – $225 million, Federal Farm Credit Bank – $25 million, Federal Agriculture Mortgage Corporation (Farmer Mac) – $30 million, and Tennessee Valley Authority – $20 million. Of the City's $1 billion investments in U.S. agencies securities, $545 million were rated AA+ by S&P and Aaa by Moody's; $817 million were not rated individually by S&P nor Moody's (issuers of these securities are rated AA+/A-1+ by S&P and Aaa/P-1 by 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 States. Medium-term notes must have at least an A rating at the time of purchase. The City's $1 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, one issuer of $5 million medium-term notes was downgraded to A- by S&P and Baa2 by Moody's; one issuer of $5 million medium-term notes was downgraded to BBB+ by S&P and Baa1 by Moody's; two issuers of $63 million medium-term notes was downgraded to BBB+ by S&P and A3 by Moody's; and one issuer of $20 million medium-term notes was downgraded to A by S&P and Baa1 by Moody's.

Commercial paper issues must have a minimum of A-1 or equivalent rating. If the issuer has issued long-term debt, it must be rated A without regards to modifiers. The issuing corporation must be organized and operating within the United States and have assets in excess of $500 million. The City's $1.6 billion investments in commercial paper were rated A-1+/A-1 by S&P and P-1 by Moody's.

Mutual fund must receive the highest ranking by at least two nationally recognized rating agencies. The City's $126.6 million investment in mutual fund were rated AAA by S&P and not rated by Moody's.

Negotiable certificates of deposits have no minimum rating requirement. The City's $10 million investments in negotiable certificates of deposits were rated A-1+/A- by S&P and P-1 by Moody's.

Municipal bonds have no minimum rating requirement. The City's $61 million investments in municipal bonds were rated AA/AA- by S&P and Aa2/Aa3 by Moody's.

Investments in supranational coupons must have a minimum of AA rating. The City's investments in supranational coupons of $142 million were rated AAA by S&P and Aaa by Moody's; $100.2 million were not rated individually by S&P nor Moody's. These short-term securities are backed by the full faith of the issuing entities, which are rated AAA/Aaa.

Concentration of Credit Risk. The Policy does not allow more than 40% of its investment portfolio be invested in commercial paper or bankers' acceptances, 30% in certificates of deposit or medium-term notes, 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 government agencies. 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 as of June 30, 2016, $633 million (6%) was invested in securities issued by Federal Home Loan Bank.

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

Level 3 – Unobservable inputs

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

Investments		Amount	Fair value measurements using: Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)
Investment subject to fair value hierarchy:				
U.S. Treasury notes	$	4,784,091	601,390	4,182,701
U.S. agencies 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		7,037,781	636,738	6,401,043
Investment not subject to fair value hierarchy:				
Mutual fund *		7,251		
Short-term investment funds *		284,148		
U.S. agencies 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		3,233,030		
Total investments	$	10,270,811		

* These investments are recorded at amortized cost that have 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.

At June 30, 2016, the City's summary of the fair value hierarchy of investments is as follows (in thousands):

Investments	**Amount**	**Fair value measurements using** Quoted prices in active markets for identical assets (Level 1)	**Fair value measurements using** Significant other observable inputs (Level 2)
Investment subject to fair value hierarchy:			
U.S. Treasury notes	$ 4,695,497	212,916	4,482,581
U.S. agencies securities	570,442	—	570,442
Medium-term notes	1,321,557	—	1,321,557
Municipal bonds	60,885	—	60,885
Supranational obligations	141,953	—	141,953
Total investments subject to fair value	6,790,334	212,916	6,577,418
Investment not subject to fair value hierarchy:			
Mutual fund *	126,632		
Short-term investment funds *	170,261		
U.S. Treasury bills *	206,762		
U.S. agencies securities *	791,664		
Negotiable certificates of deposit *	10,000		
Commercial paper *	1,617,998		
Supranational obligations *	100,229		
Securities lending short-term			
Repurchase agreement **	166,278		
Total investments not subject to fair value	3,189,824		
Total investments	$ 9,980,158		

* These investments are recorded at amortized cost that have 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.

Investments classified in Level 1 of the fair value hierarchy, valued at $636.7 million and $212 million for June 30, 2017 and 2016 and are valued using observable unadjusted quoted prices in an active market.

Level 2 classification totaling $6.4 billion and $6.6 million for June 30, 2017 and 2016 and, is 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, that is used in the portfolio valuation report which are 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.

(6) Long-Term Debt

Long-term debt outstanding as of June 30, 2017 and 2016 consists of revenue bonds and refunding revenue bonds due serially in varying annual amounts, and other long-term debt, as follows (amounts in thousands):

Bond issues	Date of issue	Effective-interest rate %	Fiscal year of last scheduled maturity	Principal outstanding 2017	Principal outstanding 2016
Revenue bonds:					
Issue of 2001, Series B	02/28/01	Variable	2036	$ 325,000	325,000
Issue of 2001, Series C	11/15/01	4.788 %	2017	—	1,620
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	82,215
Issue of 2007, Series A2	06/26/07	4.909	2044	—	197,450
Issue of 2009, Series A	02/04/09	5.118	2039	146,385	150,000
Issue of 2009, Series B	12/03/09	3.252	2021	110,275	133,165
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	307,140	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	100,025	112,695
Issue of 2013, Series B	12/05/13	3.836	2036	380,000	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	—
Total principal amount				4,605,500	4,393,690
Unamortized premiums and discounts				431,781	377,441
Revenue bonds, net				5,037,281	4,771,131
Debt due within one year (including current portion of variable rate debt)				(87,715)	(75,795)
				4,949,566	4,695,336

Bond issues	Date of issue	Effective-interest rate %	Fiscal year of last scheduled maturity	Principal outstanding 2017	Principal outstanding 2016
Other long-term debt:					
Loans payable to California State Water Resources Control Board (SWRCB)					
SRF1997CX101	12/27/01	2.320%	2024	$ 6,688	7,631
SRF02CX139	06/28/07	2.600%	2030	17,911	19,056
SRF06CX144	09/11/07	2.452%	2030	25,727	27,381
SRF06CX147	06/28/07	2.292%	2030	27,097	28,868
SRF10CX103	06/24/10	—	2035	39,816	42,158
SRF10CX104	06/24/10	—	2033	7,420	7,898
SRF11CX105	06/30/11	—	2035	20,888	22,082
SRF10CX116	06/30/11	—	2034	15,500	16,500
SRF10CX117	06/30/11	—	2033	7,750	8,250
SRF12CX105	06/30/12	—	2045	118,795	122,980
SRF12CX106	06/30/12	—	2045	30,694	31,643
SRF13P110	06/26/13	—	2019	150	250
SRF13P111	06/26/13	—	2019	150	250
SRF13P112	06/26/13	—	2019	150	250
SRF13CX104	06/26/13	—	2047	3,518	3,173
SRF13CX105	06/26/13	—	2047	81,467	38,947
SRF14CX102	06/26/14	2.085%	2047	8,083	8,114
SRF14CX103	06/26/14	2.085%	2047	53,287	48,973
SRF14CX104	06/26/14	2.085%	2047	17,089	17,298
SRF14CX105	06/26/14	2.085%	2047	28,720	13,632
SRF14-586-550	03/10/15	—	2022	80	100
SRF14-310-550	06/19/15	1.663%	2040	17,158	9,786
SRF D15-02014	09/29/15	1.663%	2036	3,746	3,249
Total principal amount				531,884	478,469
Amount due within one year				(13,536)	(11,395)
Loans payable, noncurrent				518,348	467,074
Total long-term debt, bonds, and loans				$ 5,569,165	5,249,600

Revenue bonds generally are callable 10 years after issuance. The Department 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 Department 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 Department in the form of low or 0% interest loans with a repayment period of up to 30 years.

(a) Long-Term Debt Activity

The Water System had the following activity in long-term debt during fiscal year 2017 and 2016 (amounts in thousands):

		Balance, July 1, 2016	Additions	Reductions	Balance, June 30, 2017	Current portion
Revenue bonds	$	4,771,131	613,102	(346,952)	5,037,281	87,715
Loan from SWRCB		478,469	71,511	(18,096)	531,884	13,536
Total	$	5,249,600	684,613	(365,048)	5,569,165	101,251

		Balance, July 1, 2015	Additions	Reductions	Balance, June 30, 2016	Current portion
Revenue bonds	$	4,146,820	1,066,331	(442,020)	4,771,131	75,795
Loan from SWRCB		421,677	73,364	(16,572)	478,469	11,395
Total	$	4,568,497	1,139,695	(458,592)	5,249,600	87,190

(b) New Issuances

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.

Fiscal Year 2016

Water System Revenue Bonds

In April 2016, the Water System issued $628.61 million of Water System Revenue Bonds, 2016 Series A. The net proceeds of $735.62 million, including a $107.01 million issue premium net of underwriter's discount, were used to pay for budgeted capital improvements, and refund a portion of the Water System Revenue Bonds, 2006 Series A, Subseries A-1, amounting to $122.67 million and Subseries A-2, amounting to $61.23 million. The transaction resulted in a net present value savings of $74.06 million and a net gain for accounting purposes of $7.07 million, which was capitalized as deferred outflows on debt refunding and is being amortized over the life of the refunded bonds.

In June 2016, the Water System issued $265.73 million of Water System Revenue Bonds, 2016 Series B. The net proceeds of $329.06 million, including a $63.33 million issue premium net of underwriter's discount, were used to pay for budgeted capital improvements, and refund all of the outstanding Water System Revenue Bonds, 2006 Series A, Subseries A-1, amounting to $18.42 million and Subseries A-2, amounting to $179.86 million. The transaction resulted in a net present value savings of $53 million and a net gain for accounting purposes of $6.2 million, which was capitalized as deferred outflows on debt refunding and is being amortized over the life of the refunded bonds.

State Revolving Fund (SRF) Loans

The Department entered into three (3) loan agreements with the State of California's State Water Resources Control Board (SWRCB). The loan agreements, 14-586-550, 14-310-550, and D15-02014 allow for a total maximum loan of $0.1 million, $102.8 million, and $5.1 million, respectively, at 0% to 1.663% interest rate. As of June 30, 2016, the Department received $0.10 million, $9.8 million, and $3.3 million, respectively, under the agreements. The proceeds are being used to fund water quality capital improvements.

(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, 2017, the following revenue bonds outstanding are considered defeased (amounts in thousands):

Bond issues		Principal outstanding
Issue of 1998 R	$	66,040
Issue of 2007 Series A, Subseries A-1		77,715
Issue of 2007 Series A, Subseries A-2		197,450
	$	341,205

(d) *Variable Rate Bonds*

The variable rate bonds currently bear interest at daily and weekly rates ranging from 0.44% to 0.88% as of June 30, 2017 and 0.18% to 0.42% as of June 30, 2016. The Department 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 Department has entered into standby agreements with a syndicate of commercial banks in an 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 2018 and July 2019, respectively.

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 Department 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 Department the ability to refinance on a long-term basis, and the Department 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, 2017 and 2016.

(e) Scheduled Principal Maturities and Interest

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

		Principal	Interest and amortization
Fiscal year(s) ending June 30:			
2018	$	68,751	200,303
2019		79,842	199,103
2020		85,681	197,462
2021		89,889	195,244
2022		101,385	191,994
2023–2027		634,174	892,308
2028–2032		774,687	769,947
2033–2037		944,809	620,140
2038–2042		1,189,875	397,796
2043–2047		873,190	159,020
2048–2052		295,101	28,039
Total requirements	$	5,137,384	3,851,356

The interest and amortization is net of $420.42 million of unamortized discount/premium and gain/loss due to issuances of new and refunding bonds.

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 2018, $65 million in each of the fiscal years 2019 through 2022, and $32.5 million in fiscal year 2023. 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 2018, 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, 2017 averages 0.72%. 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

In December 2016, the Water System drew down $142.4 million from the Revolving Line of Credit (RCA) with Wells Fargo Bank, National Association, to fund a portion of the Water System's capital expenditures for fiscal years 2016–2017. The $142.4 million draw was a tax-exempt loan bearing interest based on the Securities Industry and Financial Markets Association Index Rate plus a 0.29 percentage spread. In May 2017, the Department 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 April 2017, the Department entered into an Amendment (First Amendment) to the RCA to increase the current line of credit amount from $300 million to the maximum of $500 million approved by the Board of Water and Power commissioners (the Board). The First Amendment to the RCA provides that the additional $200 million (the Additional Commitment) will be for a period of 12 months commencing on the first date that the aggregate outstanding loan exceeds the original $300 million limit under the current RCA. The related fees, provisions, and terms of the Additional Commitment remain the same as those in the existing line of credit when it was initially approved by the Board in December 2015.

Due to a delay in planned issuance of debt, in June 2017, the Water System borrowed $250 million from the 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. The $250 million draw is a taxable loan bearing interest based on a London Interbank Offered Rate (LIBOR) Index Rate plus a 0.40 percentage spread, which will be paid from the Water Revenue Fund. The Department expects to repay the loan on or about May 2018.

(7) Retirement Plan

(a) Plan Description

The Department 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 employers. 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. 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).

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.

(c) Plan membership

At June 30, 2016 and 2015, pension plan membership, which consists of Water System and Power System members, consisted of the following:

	2016	2015
Retired members or beneficiaries currently receiving benefits	9,265	8,843
Vested terminated members entitled to, but not yet receiving benefits	1,612	1,528
Active members	9,348	9,205
Total	20,225	19,576

(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 2017, 2016 and 2015 (based on the July 1, 2016, 2015 and 2014 valuations) was 45.25%, 42.77% and 46.17% of compensation. The average member contribution rate for fiscal years 2017, 2016 and 2015 (based on the July 1, 2016, 2015 and 2014 valuations) was 6.80% 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 2017, 2016, and 2015 amounted to $127 million, $118 million, and $124 million. These contributions represented 98%, 97%, and 98% of the actuarially determined annual required contributions in fiscal years 2017, 2016, and 2015, respectively.

(e) Net Pension Liability

At June 30, 2017 and 2016, the Water System reported a liability of $699 million and $373 million, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2016 and 2015, 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, 2017 and 2016, the Water System's proportion was 31.9% as compared to 32.6% and 32.3% as of June 30, 2016 and 2015, respectively.

(f) Actuarial Assumptions

The Department's net pension liability as of June 30, 2017 and 2016 was determined by actuarial valuations as of July 1, 2016 and 2015, respectively. 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 actuarial assumptions used in the July 1, 2015 valuation were based on the results of the experience study for the period from July 1, 2009 through July 30, 2012. The following assumptions were applied to all periods included in the measurement for the July 1, 2016 and 2015 actuarial valuation:

Actuarial assumptions	2016	2015
Inflation	3.00%	3.25%
Salary increases	4.50% to 10.00%	4.75% to 10.00%
Investment rate of return	7.25%	7.50%
Cost of living adjustments	3.00% (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)	3.00% (actual increases contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)
Mortality	Healthy: RP-2014 Combined Mortality Table set back one year with MP-2015 Projection Scale	Healthy: RP-2000 Mortality Table set back one year projected to 2030 with Scale AA

(g) Discount Rate:

The discount rate used to measure the pension liability was 7.25% and 7.50% as of June 30, 2017 and 2016, respectively. The projection of cash flows used to determine the discount rate assumed 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 pension Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current 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 as of both June 30, 2017 and 2016.

(Continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which 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 arithmetic real rates of 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 tables:

	June 30, 2016	
Asset class	Target allocation	Long-term expected real rate of return
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	100 %	

	June 30, 2015	
Asset class	Target allocation	Long-term expected real rate of return
Domestic equity	33 %	0.06 %
Developed international equity	21	7.00
Fixed income	24	0.77
Real estate	5	4.90
Real return	6	2.85
Private equity	5	9.00
Covered calls	5	4.88
Cash and cash equivalents	1	—
Total	100 %	

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

The following presents the net pension liability of the Department as of June 30, 2017 and 2016, calculated using discount rates of 7.25% and 7.50%, 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):

Net pension liability		1% Decrease (6.25%)	Current discount rate (7.25%)	1% Increase (8.25%)
June 30, 2017	$	1,232,838	698,878	257,742
Net pension liability		**1% Decrease (6.50%)**	**Current discount rate (7.50%)**	**1% Increase (8.50%)**
June 30, 2016	$	838,737	373,024	(18,205)

(i) 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.

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

The Water System recognized pension expense of $101,415 and $(8,782) for the years ended June 30, 2017 and 2016. 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, 2017 and 2016, the Water System reported $373,459 and $112,511, respectively, for deferred outflow of resources and deferred inflow of resources of $117,834 and $200,964, respectively.

The below table summarizes the deferred inflow of resource and deferred outflow of resources related to pensions at June 30, 2017 and 2016 (amounts in thousands).

Deferred outflow of resources		June 30 2017	June 30 2016
Changes in proportion and differences between entity contributions and proportionate share of contributions	$	5,538	7,989
Net difference between projected and actual earnings on pension plan investments		108,593	—
Changes of assumptions and other inputs		259,328	104,522
Total deferred outflow of resources	$	373,459	112,511

Deferred inflow of resources		June 30 2017	June 30 2016
Changes in proportion and differences between entity entity contributions and proportionate share of contributions	$	7,321	1,061
Net difference between projected and actual earnings on pension plan investments		—	112,154
Difference between expected and actual experience in the total pension liability		110,513	87,749
Total deferred inflow of resources	$	117,834	200,964

In addition to the deferred outflows noted above, there are also $127,470 and $118,425 of deferred outflows related to pension contributions made after the measurement date as of June 30, 2017 and 2016, 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 2017	June 30 2016
2017	$	—	(41,900)
2018		29,663	(41,900)
2019		55,345	(15,621)
2020		85,303	15,004
2021		66,664	(4,036)
2022		18,650	—
Total	$	255,625	(88,453)

(8) Other Postemployment Benefit (Healthcare Plan)

(a) Plan Description

The Department provides certain other postemployment benefits (OPEB), such as medical and dental plans, to active and retired employees and their dependents. The healthcare plan is administered by the Department. The Retirement Board and the Board 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 total number of active and retired Department participants entitled to receive benefits was approximately 17,844 and 17,244 for the fiscal years ended June 30, 2017 and 2016, respectively.

The health plan is a single-employer defined-benefit plan. During fiscal year 2007, the Retiree Health Benefits Fund (the Fund) was created to fund the postemployment benefits of the Department. The Fund is administered as a trust and has its own financial statements. 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) Funding Policy

The Department pays a monthly maximum subsidy of $1,943 for medical and dental premiums depending on the employee’s work location and benefits earned. Participants choosing plans with a cost in excess of the subsidy are required to pay the difference.

Although no formal funding policy has been established for the future benefits to be provided under this plan, the Department has made significant contributions into the Fund during previous years. In fiscal year 2017, the Department paid $85.7 million in retiree medical premiums. In fiscal year 2016, the Department paid $73.0 million in retiree medical premiums. The Water System's portion of retiree medical premium payments was $28.1 million and $26.6 million for 2017 and 2016, respectively. The remaining portion was paid by the Power System.

(c) *Annual OPEB Cost and Net OPEB Obligation*

The annual OPEB cost (expense) is calculated based on the ARC of the employer, 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 ARC 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.

The following table shows the components of the Department's Power and Water fund's annual OPEB cost for the year, the amount actually contributed to the Plan, and changes in the net other postretirement benefit asset (amounts in thousands):

		Year ended June 30	
		2017	2016
Annual required contribution	$	97,265	64,253
Interest on net OPEB obligation		(76,059)	(77,024)
Adjustment to annual required contribution		80,048	74,238
Annual OPEB costs		101,254	61,467
Department contributions made		85,736	72,994
Change in net OPEB asset		(15,518)	11,527
Net OPEB asset – beginning of year		994,951	983,424
Net OPEB asset – end of year	$	979,433	994,951

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

		Year ended June 30	
		2017	**2016**
Annual required contribution	$	29,180	20,561
Interest on net OPEB obligation		(22,818)	(24,647)
Adjustment to annual required contribution		24,014	23,756
Annual OPEB costs		30,376	19,670
Water System contributions made		28,118	26,601
Change in net OPEB asset		(2,258)	6,931
Net OPEB asset – beginning of year		320,463	313,532
Net OPEB asset – end of year	$	318,205	320,463

The Department's Power and Water fund's annual OPEB costs, the percentage of ARC contributed to the Plan, and the net postemployment obligation for fiscal years 2017, 2016, and 2015 were as follows (amounts in thousands):

		2017	**2016**	**2015**
Annual OPEB costs	$	101,254	61,467	68,150
Percentage of OPEB costs contributed		85 %	119 %	108 %
Net postemployment asset at end of year	$	979,433	994,951	983,424

The Water System's share in the annual OPEB costs, the percentage of ARC contributed to the Plan, and the net postretirement obligation for fiscal years 2017, 2016, and 2015 were as follows (amounts in thousands):

		2017	**2016**	**2015**
Annual OPEB costs	$	30,376	19,670	21,808
Percentage of OPEB costs contributed		93 %	135 %	117 %
Net postemployment asset at end of year	$	318,205	320,463	313,532

(d) 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 2017. As of July 1, 2017, the Department's actuarial value of assets was $1.9 billion and 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%.

On December 8, 2016, the latest 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 $1.8 billion and 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%.

On October 30, 2015, the latest actuarial study as of July 1, 2015 was completed for fiscal year 2016. As of July 1, 2015, the Department's actuarial value of assets was $1.64 billion and AAL for benefits was $1.96 billion, resulting in a UAAL of $0.32 billion, which represents 84% funding status. The covered payroll (annual payroll of active employees covered by the Plan) was $920 million, and the ratio of the UAAL to the covered payroll was 35%.

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 the 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.

(e) 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.

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.

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In the July 1, 2015 actuarial valuation, the entry age normal cost method was used. The actuarial assumptions include 7.50% discount rate, which represents the expected long-term return on plan assets, and an annual healthcare cost trend rate of 6.75% initially, reduced by decrements to an ultimate rate of 5.00% over 7 years. Both rates include a 3.25% 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 20 years remaining.

(f) 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 an excise tax on high cost plans (Cadillac 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 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.

(g) Death and Disability Benefits

The Water System's allocated share of death and disability benefit plan costs and administrative expenses totaled $9.9 million and $9.3 million for fiscal years 2017 and 2016, respectively. Death and disability benefits are administered as part of the Retirement Plan and maintain separate restricted funds to pay for each benefit. Disability benefits are paid to active employees only who qualify under the plan 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 2.0% at June 30, 2017 and 2.1% as of June 30, 2016. The Department has third-party insurance coverage for workers' compensation claims over $1 million.

Overall indicated reserves for workers' compensation claims, for both the Water System and the Power System, undiscounted, have increased from $104 million as of June 30, 2016 to $115 million as of June 30, 2017. 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, 2017 and 2016.

Changes in the Department's undiscounted liability since June 30, 2015 are summarized as follows (amounts in thousands):

		June 30		
		2017	2016	2015
Balance at beginning of year	$	103,699	95,379	99,519
Current year claims and changes in estimates		37,501	35,268	26,727
Payments applied		(26,096)	(26,948)	(30,867)
Balance at end of year	$	115,104	103,699	95,379

The Water System's portion of the discounted reserves as of June 30, 2017 and 2016 are $32.0 million and $29.3 million, respectively.

(10) Commitments and Contingencies

(a) Purchase Water Commitments

As a member of the Metropolitan Water District (Metropolitan), the Department purchases water from Metropolitan pursuant to water supply purchase orders entered into with Metropolitan for specific periods. In January 2015, the Department and Metropolitan executed a new Purchase Order for Imported Water Supply Agreement (the Purchase Order Agreement), which requires the Department to purchase at least 2,033,134 acrefeet 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 Department's annual maximum Tier 1 allocation of water from Metropolitan is 335,663 acrefeet per year, or 3,356,630 acrefeet 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 acrefoot 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. The Water System is commitment to purchase 1,288,000 acre feet of water from Metropolitan related to this agreement over the next 7.5 years, which is estimated to total $1.518 billion, or about $202 million per year.

(b) Pollution and Remediation Obligations

The Department 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 $11.3 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 Department had four major reservoirs in its system subject to SWTR: Upper and Lower Hollywood, Lower Stone Canyon, and Encino. To comply with SWTR, the Department 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 Department 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.

In order to comply with the requirements of the Stage 2 DBP Rule, the Department 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 ammonization stations, two chlorination stations, and has and will continue to install mixers in tanks and reservoirs. The Department 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 $374 million at completion. The actual expenditures to date are $306.9 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 Reservoir has now been covered, Silver Lake Reservoir has been removed from service, and Elysian is out of service while the cover is under construction. The remainder of these projects is in different stages of design and construction. The cost of LT2-compliance-related engineering studies and construction activities is expected to reach $1.485 billion at completion in 2020. The actual cost spent to date has been $985.2 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.

In the intervening years, the Department has constructed facilities at the Lake in Phases responding to a series of supplemental control requirements. The facilities cover nearly a 45 square mile area. 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 Department is currently constructing the Owens Lake Dust Mitigation Program – Phase 9/10 Project with a completion deadline of December 31, 2017. The Phase 9/10 Project entails 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. Upon completion of the Phase 9/10 Project, dust emissions from 48.6 square miles of Owens Lake playa would have been mitigated, resulting in 99% overall reduction in PM10 emissions. All improvements made to Owens Lake as part of pollution mitigation are recorded as Utility Plant in the year made.

(g) Litigation

A number of claims and suits are pending against the Department 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, 2017, 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.

CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Required Supplementary Information

June 30, 2017 and 2016

(Unaudited)

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

Last 10 years*

(Amounts in thousands other than percentages)

		2017	2016	2015
Water System's proportion of the collective net pension liability		31.892 %	32.603 %	32.344 %
Water System's proportionate share of the collective net pension liability	$	698,878	373,024	411,485
Water System's covered-employee payroll		274,851	273,607	265,192
Water System's proportionate share of the collective net pension liability as a % of covered payroll		254.27 %	136.34 %	155.16 %
Pension plan's fiduciary net position as a percentage of total pension liability		82.17	89.80	88.41

* 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.

See accompanying independent auditors report.

(Continued)

Required Supplementary Information

June 30, 2017 and 2016

(Unaudited)

Schedule of the Water System's 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)	Water System's covered-employee payroll	Contributions as a percentage-of-covered-employee payroll
2017	$	117,554	115,564	1,990	274,851	42.05%
2016		123,994	125,944	(1,950)	273,607	46.03
2015		125,339	129,061	(3,722)	265,192	48.67
2014		120,150	121,914	(1,764)	266,262	45.79
2013		108,045	103,174	4,871	260,146	39.66
2012		97,640	91,952	5,688	253,939	36.21
2011		64,331	64,477	(146)	246,290	26.18
2010		45,316	46,807	(1,491)	223,452	20.95
2009		43,186	45,499	(2,313)	200,029	22.75
2008		43,139	41,423	1,716	193,884	21.36

(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 Statement Nos. 25 and 27.

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

See accompanying independent auditors' report.

CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SYSTEM

Required Supplementary Information

June 30, 2017 and 2016

(Unaudited)

Postemployment Healthcare Plan – Schedule of Funding Progress

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 (AAL)	Unfunded AAL (UAAL)	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
2015		1,637,578	1,956,230	318,652	84		920,781	35

See accompanying independent auditors' report.