

---

*ANNUAL*

*TACOMA WATER*

**2017**

**FINANCIAL  
REPORT**





# Public Utility Board

MONIQUE TRUDNOWSKI

Chair

WOODROW JONES

Vice-Chair

KAREN LARKIN

Secretary

BRYAN FLINT

Member

MARK PATTERSON

Member

LINDA MCCREA

Interim Director of Utilities/CEO

SCOTT DEWHIRST

Water Superintendent

ANDREW CHERULLO

Finance Director

DEPARTMENT OF PUBLIC UTILITIES

CITY OF TACOMA



CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES

# TACOMA WATER

## TABLE OF CONTENTS

### **FINANCIAL DATA**

INDEPENDENT AUDITOR'S REPORT .....	1 - 2
MANAGEMENT'S DISCUSSION AND ANALYSIS .....	3 - 11
STATEMENTS OF NET POSITION .....	13 - 14
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION .....	16
STATEMENTS OF CASH FLOWS .....	17 - 18
NOTES TO FINANCIAL STATEMENTS .....	19 - 43

### **REQUIRED SUPPLEMENTARY INFORMATION**

PROPORTIONATE SHARE OF THE NET PENSION LIABILITY.	46
SCHEDULE OF THE CITY OF TACOMA'S CONTRIBUTIONS ...	46

### **STATISTICAL DATA (UNAUDITED)**

TEN-YEAR FINANCIAL REVIEW .....	49 - 50
TEN-YEAR FINANCIAL REVIEW RWSS .....	51 - 52
STATEMENTS OF NET POSITION WATER/RWSS .....	53 - 54
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION WATER/RWSS.....	55
BOND DEBT SERVICE REQUIRED WATER/RWSS .....	56
FUNDS AVAILABLE FOR DEBT SERVICE .....	57
SUMMARY OF WATER SALES .....	58
2017 STATISTICAL INFORMATION .....	59
TAXES AND EMPLOYEE WELFARE CONTRIBUTIONS .....	60
2017 WATER RATES .....	61
2017 FIRE PROTECTION RATES .....	62
GRAPHS .....	63 - 68

<b>SUPERINTENDENT'S REPORT (UNAUDITED)</b> .....	69 - 79
--------------------------------------------------	---------



# FINANCIAL DATA

## **Report of Independent Auditors**

The Chair and Members of the Public Utility Board  
City of Tacoma, Department of Public Utilities, Water Division  
Tacoma, Washington

### **Report on the Financial Statements**

We have audited the accompanying financial statements of City of Tacoma, Department of Public Utilities, Water Division (the Division), which comprise the statements of net position as of December 31, 2017 and 2016, and the related statements of revenue, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

### ***Management's Responsibility for the Financial Statements***

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

### ***Auditor's Responsibility***

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

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

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



***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of City of Tacoma, Department of Public Utilities, Water Division as of December 31, 2017 and 2016, and the results of its operations and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

***Other Matters***

***Required Supplementary Information***

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

***Other Information***

Our audit was conducted for the purpose of forming an opinion on the financial statements taken as a whole. The statistical data on pages 50 through 69 and the superintendent's report on pages 70 through 80 are presented for purposes of additional analysis, and are not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

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

In accordance with *Government Auditing Standards*, we have also issued our report dated April 20, 2018, on our consideration of the City of Tacoma, Department of Public Utilities, Water Division's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of 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 Division's internal control over financial reporting and compliance.



Tacoma, Washington  
April 20, 2018

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of Tacoma Water's financial performance provides an overview of the financial activities for the years ended December 31, 2017, 2016, and 2015. This discussion and analysis is designed to assist the reader in focusing on the significant financial issues, provide an overview of the financial activities, and identify changes in the financial position. We encourage readers to consider the information presented here in conjunction with the financial statements and notes taken as a whole.

The management of the Finance Department of the City of Tacoma is responsible for preparing the accompanying financial statements and for their integrity. The statements were prepared in accordance with generally accepted accounting principles (GAAP) in the United States of America, applied on a consistent basis, and include amounts that are based on management's best estimates and judgments.

The basic financial statements, presented on a comparative basis for the years ended December 31, 2017 and 2016, include Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position, and Statements of Cash Flows. The Statements of Net Position present information on all of Tacoma Water's assets, deferred outflows of resources, liabilities, and deferred inflows of resources with the difference being reported as net position. 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 provide information on cash receipts and disbursements during the year and report changes in cash resulting from operating, non-capital financing, capital and related financing, and investing activities.

The Notes to Financial Statements provide additional disclosures that are essential to a full understanding of the data provided in the financial statements. They are an integral part of Tacoma Water's presentation of financial position, results of operations and changes in cash flows.

### Financial Highlights

- The net position of Tacoma Water was \$556.7 million in 2017, \$549.7 million in 2016 and \$542.5 million in 2015. Of these amounts, \$58.1 million in 2017, \$57.1 million in 2016, and \$53.8 million in 2015 is reported as Unrestricted net position and is available to finance day-to-day operations without constraints established by debt covenants or other legal requirements.
- Tacoma Water's total net positions increased by \$7.1 (1.3%) million in 2017, \$7.2 (1.3%) million in 2016 and \$24.7 (4.8%) million in 2015.
- Operating revenues were \$94.6 million in 2017, an increase of \$1.8 million (2.0%) compared to 2016 which is primarily due to an average rate increase of 4.0% and a decrease in consumption. Operating revenues were \$92.8 million in 2016, a decrease of \$5.3 million (5.4%) compared to 2015. While sales and other revenue increased by \$1.5 million from 2015 to 2016, contract resource obligation revenue decreased by \$6.9 million. The decrease in contract resource revenue is primarily

due to a shift in focus from building the Green River Filtration Facility to operating the facility and the partners were billed accordingly.

- In 2017, Tacoma Water's net utility plant of \$873.5 million represented a decrease of \$6.0 million (0.7%) compared to the 2016 \$879.5 million balance. This is primarily due to a net increase of \$24.4 million in plant in service offset by an increase in accumulated depreciation of \$21.8 million and a decrease in construction work in progress of \$8.7 million. In 2016, Tacoma Water's net utility plant of \$879.5 million represented a decrease of \$5.2 million (0.6%) compared to the 2015 \$884.7 million balance. This is primarily due to a net increase of \$15.5 million in plant in service offset by an increase in accumulated depreciation of \$20.6 million.

## Overview of the Financial Statements

Tacoma Water reported net operating income of \$16.8, \$17.4 and \$34.6 million in 2017, 2016 and 2015 respectively. In 2017, operating revenues increased by \$1.8 million and operating expenses increased \$2.5 million. For 2016, operating revenues decreased by \$5.3 million and operating expenses increased \$11.8 million.

The following tables highlight Tacoma Water's past three years' operating results and gallons billed.

### Operating Results (In thousands)

Category	2017	2016	2015	17/16 Increase (Decrease)	16/15 Increase (Decrease)
Operating Revenues	\$ 94,644	\$ 92,802	\$ 98,139	\$ 1,842	\$ (5,337)
Operating Expenses	77,866	75,356	63,588	2,510	11,768
Net Operating Income	16,778	17,446	34,551	(668)	(17,105)
Net Non-Operating Income (Expense)	(15,342)	(17,395)	(15,595)	2,053	(1,800)
Capital Contributions	9,139	10,274	9,053	(1,135)	1,221
Federal BAB Subsidies & Grants	3,582	3,579	3,610	3	(31)
Transfers Out	(7,093)	(6,754)	(6,874)	(339)	120
Change in Net Position	\$ 7,064	\$ 7,150	\$ 24,745	\$ (86)	\$ (17,595)

**Gallons Billed**  
(In millions)

Type of Customer	2017	2016	2015	17/16	16/15
				Increase (Decrease)	Increase (Decrease)
Residential	8,251.3	8,371.3	8,483.5	(120.0)	(112.2)
Commercial & Industrial	8,838.2	8,763.4	9,140.7	74.8	(377.3)
Wholesale	935.5	1,275.6	1,881.1	(340.1)	(605.5)
<b>Total</b>	<b>18,025.0</b>	<b>18,410.3</b>	<b>19,505.3</b>	<b>(385.3)</b>	<b>(1,095.0)</b>

**Net Position**

Net position may serve over time as a useful indicator of an entity's financial position. The analysis highlights net position for the last three years.

**Statements of Net Position**  
(In thousands)

Description	2017	2016	2015	17/16	16/15
				Increase (Decrease)	Increase (Decrease)
Net Utility & Non-Utility Plant	\$ 874,012	\$ 880,041	\$ 885,214	\$ (6,029)	\$ (5,173)
Current & Other Assets	229,630	228,621	212,475	1,009	16,146
<b>Total Assets</b>	<b>1,103,642</b>	<b>1,108,662</b>	<b>1,097,689</b>	<b>(5,020)</b>	<b>10,973</b>
Deferred Outflows	10,034	10,623	4,003	(589)	6,620
<b>Total Assets &amp; Deferred Outflows</b>	<b>\$ 1,113,676</b>	<b>\$ 1,119,285</b>	<b>\$ 1,101,692</b>	<b>\$ (5,609)</b>	<b>\$ 17,593</b>
Net Position:					
Net Investment in Capital Assets	\$ 445,996	\$ 446,518	\$ 446,538	\$ (522)	\$ (20)
Restricted for:					
Water Capital and Sys Dev Chg	50,149	43,534	39,439	6,615	4,095
Debt Service Funds	2,506	2,496	1,852	10	644
Net Pension Asset	-	-	881	-	(881)
Unrestricted	58,066	57,104	53,792	962	3,312
<b>Total Net Position</b>	<b>556,717</b>	<b>549,652</b>	<b>542,502</b>	<b>7,065</b>	<b>7,150</b>
Long-Term Debt	463,619	478,617	478,401	(14,998)	216
Current & Other LT Liabilities	55,981	54,919	44,283	1,062	10,636
<b>Total Liabilities</b>	<b>519,600</b>	<b>533,536</b>	<b>522,684</b>	<b>(13,936)</b>	<b>10,852</b>
Deferred Inflows	37,359	36,097	36,506	1,262	(409)
<b>Total Net Position, Liabilities &amp; Deferred Inflows</b>	<b>\$ 1,113,676</b>	<b>\$ 1,119,285</b>	<b>\$ 1,101,692</b>	<b>\$ (5,609)</b>	<b>\$ 17,593</b>

## Revenues

Tacoma Water's operating revenues were \$94.6 million in 2017, an increase of \$1.8 million (2.0%) compared to 2016. Sales of water increased in 2017 by a net of \$2.0 million of which \$3.7 million is due to an average rate increase of 4.0% effective April 1, 2017 and a decrease in usage of \$1.7 million. This is offset by a decrease in contract resource obligations of \$0.2 million from Regional Water Second Supply (RWSS) Partners to reimburse Tacoma Water for operating & maintenance related expenses.

Tacoma Water's operating revenues were \$92.8 million in 2016, a decrease of \$5.3 million (5.4%) compared to 2015. Sales of water increased in 2016 by a net of \$1.0 million of which \$4.2 million is due to an average rate increase of 4.0% effective January 1, 2016 and a decrease in usage of \$3.2 million. This is offset by a decrease in contract resource obligations of \$6.9 million. RWSS Partners reimbursed Tacoma Water for the final expenses related to building the Green River Filtration Facility in the first quarter of 2016. Contract resource revenue for the remainder of the year includes recovery of primarily operating & maintenance related expenses, resulting in a net reduction.

The following table highlights water sales by type of customer for 2017, 2016 and 2015.

### Water Sales (In thousands)

Type of Customer	2017	2016	2015	17/16	16/15
				Increase (Decrease)	Increase (Decrease)
Residential & Domestic	\$ 52,540	\$ 50,742	\$ 48,263	\$ 1,798	\$ 2,479
Commercial & Industrial	17,409	17,559	17,234	(150)	325
Special Rate	6,322	5,846	5,951	476	(105)
Wholesale	3,069	3,972	5,192	(903)	(1,220)
Unbilled Revenue	660	(138)	319	798	(457)
Total	<u>\$ 80,000</u>	<u>\$ 77,981</u>	<u>\$ 76,959</u>	<u>\$ 2,019</u>	<u>\$ 1,022</u>

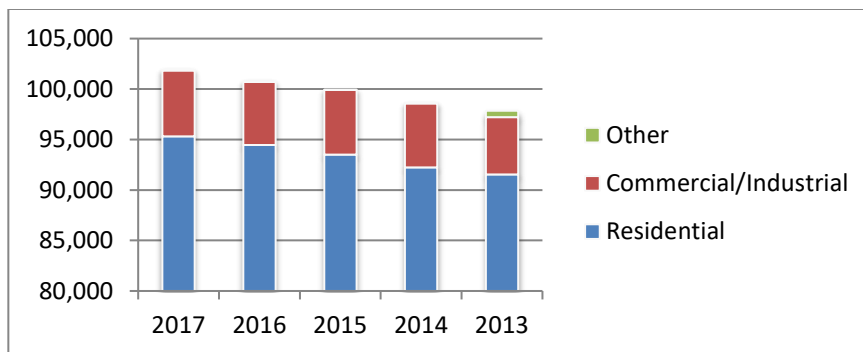
Approximately 65.7%, 65.1% and 62.7% of water sales were to residential and domestic customers in 2017, 2016 and 2015 respectively. Commercial and industrial sales were 21.8%, 22.5% and 22.4% of total sales for each year. Special rate sales were 7.9%, 7.5%, 7.7% of sales respectively.

## Customers

Over the last five years, the overall number of customers has remained relatively stable. In 2017, 93.6% of all customers were residential compared to 93.8% in 2016 and 93.6% in 2015. Commercial and industrial customers were 6.4% of all customers in 2017, 6.2% in 2016 and 6.4% in 2015.

Below is a graphical representation of the number of customers by customer type for the last 5 years.

### Number of Customers

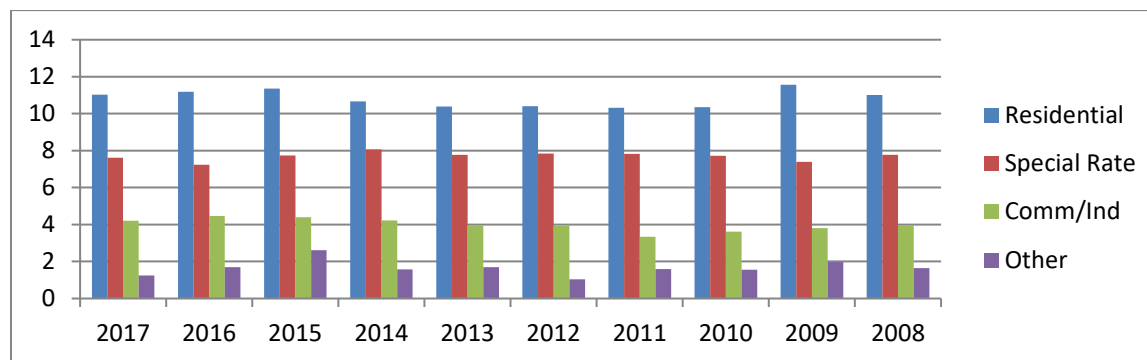


### Water Users

Tacoma Water generates the majority of its revenues from its residential and domestic customer base. Consumption is measured in 100 cubic feet (CCF). In the years 2017, 2016 and 2015 residential customers used 11.0 million CCF (45.8%), 11.2 million CCF (45.5%) and 11.3 million CCF (43.5%) of total consumption respectively. Special Rate customers used approximately 7.6 million CCF (31.6%), 7.2 million CCF (29.4%) and 7.7 million CCF (29.7%) respectively. Commercial and industrial customers used 4.2 million CCF (17.5%), 4.5 million CCF (18.2%) and 4.4 million CCF (16.8%) respectively. The remaining 1.3 million CCF (5.2%), 1.7 million CCF (6.9%) and 2.6 million CCF (10.0%) respectively was consumed by other customers.

Below is a graphical representation of the annual water usage by customer type for the last 10 years.

### Annual Water Usage (In millions of CCF)



## Expenses

In 2017, operating expenses increased \$2.5 million (3.3%), compared to an increase of \$11.8 million (18.5%) in 2016. Two major projects took place in 2017 contributing to an increase in operating expense of \$0.8 million: the Integrated Resource Plan (IRP) and the Water System Plan. The IRP will be used by Tacoma Water to enhance the ability to manage water resources. The plan will evaluate Tacoma Water's groundwater sources and help to decide where additional focus may be needed. In addition, the IRP will develop a water supply yield model that will look at both short and long-term use and be able to look at yield under several different scenarios. The Department of Health requires the creation of a Water System Plan every 10 years. Tacoma Water uses input from stakeholders and the public to create the plan which is meant to provide an overview of the system as well as outline the different parts of the system, changes from the last plan and projects planned for the future. The increase affected Source of Supply by \$0.3 million, Treatment by \$0.1 million, and Admin & General by \$0.4 million.

Depreciation expense increased by \$0.2 million (0.9%) in 2017 due to a net increase in depreciable assets of \$15.5 million during 2016.

Pension expense increased \$0.6 million in 2017. This expense was allocated across the Division causing increases in labor expense as follows: Source \$0.1 million, Treatment \$0.1 million, Distribution \$0.3 million, and Admin & General \$0.1 million.

In 2016, operating expenses increased \$11.8 million (18.5%), compared to an increase of \$5.0 million (8.6%) in 2015. Source of Supply saw expenses returning to normal in 2016. Increased use of in-town wells due to the 2015 drought caused a labor shift from other sections of Tacoma Water to focus on operating the wells. In 2016, the wells were used significantly less which resulted in a decrease in expenses of \$0.5 million (6.4%) when compared to 2015. Similarly, the cost to pump the well water decreased by \$0.3 million (34.0%), as well as the costs related to Transmission and Storage which decreased by \$0.1 million (1.9%).

Treatment experienced an increase of \$1.8 million (37.1%) compared to 2015 as expenses shifted back from in-town supply sources to the planned operation of the Green River Filtration Facility (GRFF). Although the GRFF came online in 2015, due to the statewide drought and the requirements to ensure adequate fish passage in the Green River, it was used less than expected. When compared to 2015, chemical expenses increased by \$0.6 million, solid handling costs increased by \$0.1 million and electricity increased by \$0.3 million. Also contributing nearly \$0.1 million to the increased treatment costs was the response to lead detected in our water system in April of 2016.

Expenses related to the Distribution system increased by approximately \$2.0 million (16.6%) in 2016. This is primarily due to a shift from capital work to a focus on operations and maintenance, which accounted for an additional \$0.4 million in labor and equipment charged to operating expenses rather than capital projects. Also contributing to the variance in Distribution was \$0.3 million that was spent in 2016 on condition assessment for distribution lines.

Due primarily to an increase in assessments, Administrative and General and Customer Accounting expenses experienced increases of \$1.6 million (18.3%) and \$0.5 million (11.6%) respectively.

Depreciation expense increased by \$6.7 million (39.3%) in 2016 due to a net increase in depreciable assets of \$192.3 million during 2015.

GASB 68, *Accounting and Financial Reporting for Pensions*, resulted in an increase in expense of \$1.4 million in 2016. This expense was allocated across the Water sections as follows: Source \$0.3 million, Treatment \$0.2 million, Transmission \$0.1 million, Distribution \$0.6 million, and Admin & General \$0.2 million.

The following table highlights Tacoma Water's operating expenses for 2017 – 2015.

<b>Operating Expenses</b>					
(In thousands)					
Category	2017	2016	2015	17/16 Increase (Decrease)	16/15 Increase (Decrease)
Production Expense					
Source of Supply	\$ 7,657	\$ 7,541	\$ 8,056	\$ 116	\$ (515)
Water Treatment	7,144	6,794	4,957	350	1,837
Total Production Expense	14,801	14,335	13,013	466	1,322
Power Pumping Expense	558	559	847	(1)	(288)
Transmission & Storage Expense	2,633	2,770	2,823	(137)	(53)
Distribution Expense	14,691	13,882	11,902	809	1,980
Customer Accounting & Service	5,017	4,830	4,327	187	503
Taxes	4,776	4,639	4,681	137	(42)
Depreciation	24,038	23,823	17,103	215	6,720
Administrative & General	11,352	10,518	8,892	834	1,626
Total Operating Expenses	<u>\$ 77,866</u>	<u>\$ 75,356</u>	<u>\$ 63,588</u>	<u>\$ 2,510</u>	<u>\$ 11,768</u>

## Capital Assets

Tacoma Water invests in a broad range of utility assets and at the end of 2017 had \$873.5 million in net utility plant, a decrease of \$6.0 million from 2016.

Plant in Service increased \$24.4 million compared to 2016. This increase is largely due to the allocation of \$12.2 million of capitalized interest to assets. Also in 2017, 9.5 miles of water main were added or replaced and construction was completed on 25 private contracts resulting in 7.34 miles.

At the end of 2016 Tacoma Water had \$879.5 million in net utility plant, a decrease of \$5.2 million from 2015. Plant in Service increased \$15.5 million compared to 2015. In 2016, 11.6 miles of water main were added or replaced. Construction was completed on 27 private contracts in 2016, resulting in 8.33 miles. The \$20.6 million increase in accumulated depreciation is due to the net increase in Plant in Service in 2015 of \$192.3 million.

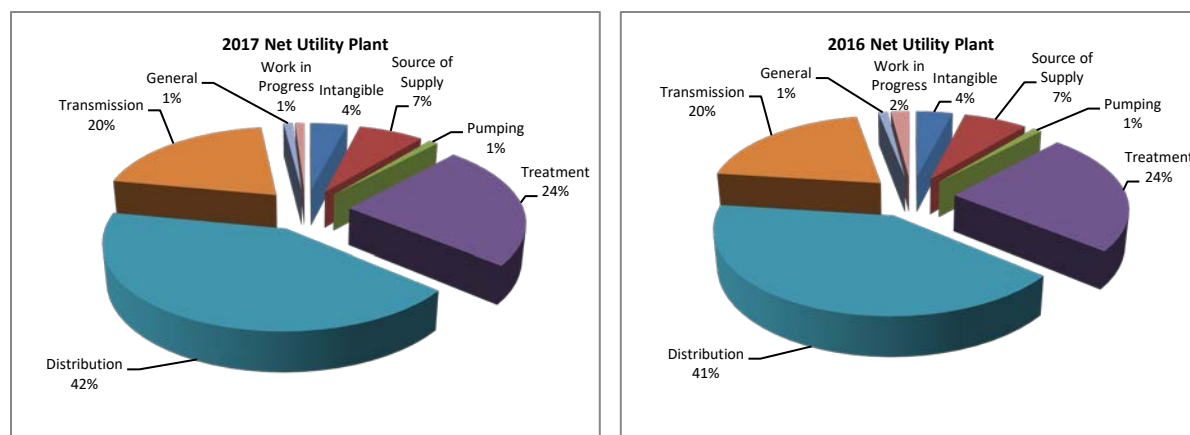


The following table summarizes Tacoma Water's capital assets, net of accumulated depreciation, for 2017 – 2015.

**Capital Assets, Net of Accumulated Depreciation**  
(In thousands)

	2017	2016	2015	17/16 Increase (Decrease)	16/15 Increase (Decrease)
Net Utility Plant					
Intangible Plant	\$ 36,922	\$ 36,581	\$ 36,368	\$ 341	\$ 213
Source of Supply Plant	58,872	60,348	60,534	(1,476)	(186)
Pumping Plant	5,362	5,448	5,542	(86)	(94)
Water Treatment Plant	210,052	206,273	213,512	3,779	(7,239)
Transmission Plant	172,672	176,439	180,209	(3,767)	(3,770)
Distribution Plant	365,830	361,693	355,557	4,137	6,136
General Plant	11,907	12,194	12,368	(287)	(174)
Construction Work In Progress	11,902	20,572	20,631	(8,670)	(59)
<b>Total</b>	<b>\$ 873,519</b>	<b>\$ 879,548</b>	<b>\$ 884,721</b>	<b>\$ (6,029)</b>	<b>\$ (5,173)</b>

The following graphs provide a visual presentation of the allocation of Tacoma Water's capital investments in 2017 and 2016.



Additional information on capital assets can be found in Note 4 of the financial statements.

### Debt Administration

At December 31, 2017 Tacoma Water had outstanding revenue bond obligations of \$384.4 million (net of unamortized bond premiums), a decrease of \$7.9 million compared to 2016. As of year-end 2016, the Utility had outstanding revenue bond obligations of \$392.3 million (net of unamortized bond premiums), a decrease of \$7.6 million compared to 2015.

All outstanding bonds are rated Aa2 by Moody's Investors Service and AA by Standard & Poor's.

Tacoma Water is required by bond covenants to maintain a debt service coverage ratio of 1.25 for principle and interest. Debt service coverage ratios (excluding RWSS) were 2.32, 2.29, and 2.33 in 2017, 2016 and 2015 respectively.

At the end of 2017, Tacoma Water had an outstanding State loan balance of \$92.6 million compared to \$99.5 million in 2016 and \$89.0 million in 2015.

Additional information on Tacoma Water's long-term debt can be found in Note 5 of the financial statements and in the supplementary statistical data.

### Summary

The management of the Finance Department of the City of Tacoma is responsible for preparing the accompanying financial statements and for their integrity. We prepared the financial statements according to GAAP in the United States of America, and they fairly portray Tacoma Water's financial position and operating results. The Notes to Financial Statements are an integral part of the basic financial statements and provide additional financial information.

The financial statements have been independently audited by Moss Adams LLP. We have made available to them all pertinent information necessary to complete the audit.

Management considers and takes appropriate action on audit recommendations. Management has established and maintains a system of internal controls which includes organizational, administrative and accounting processes. These controls provide reasonable assurance that records and reports are complete and reliable, that assets are used appropriately and that business transactions are carried out as authorized.



Linda McCrea  
Interim Director of Utilities/CEO



Andrew Cherullo  
Finance Director

*This page has been left blank intentionally.*

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

STATEMENTS OF NET POSITION

	DECEMBER 31,	
ASSETS AND DEFERRED OUTFLOWS	2017	2016
<b>UTILITY PLANT</b>		
In Service, at Original Cost .....	\$1,098,436,212	\$1,073,997,566
Less - Accumulated Depreciation .....	(236,819,423)	(215,021,698)
Total .....	861,616,789	858,975,868
Construction Work In Progress .....	11,901,984	20,571,782
Net Utility Plant .....	873,518,773	879,547,650
<b>NON-UTILITY PROPERTY</b> .....	492,963	492,963
<b>SPECIAL FUNDS</b>		
Construction Funds .....	32,591,351	41,717,595
Debt Service Funds .....	4,366,165	4,394,278
Bond Reserve Funds .....	21,969,849	22,030,885
System Development Charge Fund .....	61,645,713	58,617,922
Other Cash & Equity in Pooled Investments .....	33,389,300	30,066,803
Total Special Funds .....	153,962,378	156,827,483
<b>CURRENT ASSETS</b>		
Operating Funds Cash and Equity in Pooled Investments .....	59,076,540	54,768,598
Accounts Receivable .....	5,312,300	5,496,341
(Net of Allowance for Doubtful Accounts of \$526,979 in 2017 and \$439,846 in 2016)		
BABs Interest Subsidies Receivable .....	298,940	297,980
Accrued Unbilled Revenues .....	5,457,221	4,797,144
Materials and Supplies .....	2,403,305	2,341,548
Interfund Receivable .....	69,262	107,970
Prepayments.....	1,239,676	1,118,062
Total Current Assets .....	73,857,244	68,927,643
<b>OTHER ASSETS</b>		
Regulatory Asset-Public Fire Protection Fees ...	456,635	1,297,001
Regulatory Asset-Surcharges .....	1,353,795	1,569,477
Total Other Assets .....	1,810,430	2,866,478
 TOTAL ASSETS .....	 1,103,641,788	 1,108,662,217
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Unamortized Losses on Refunding Bonds .....	1,363,428	1,629,071
Deferred Outflows for Pensions .....	8,671,039	8,994,103
Total Deferred Outflows of Resources .....	10,034,467	10,623,174
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS</b> .....	\$1,113,676,255	\$1,119,285,391

The accompanying notes are an integral part of these financial statements

	DECEMBER 31,	
<b>NET POSITION, LIABILITIES AND DEFERRED INFLOWS</b>	2017	2016
<b>NET POSITION</b>		
Net Investment in Capital Assets .....	\$445,995,256	\$446,518,253
Restricted for:		
Water Capital and System Development Charge ....	50,149,083	43,533,806
Debt Service Funds .....	2,506,278	2,495,984
Unrestricted .....	58,066,018	57,104,183
Total Net Position .....	<u>556,716,635</u>	<u>549,652,226</u>
<b>LONG-TERM DEBT</b>		
Revenue Bonds .....	377,995,249	386,065,146
Public Works Trust Fund Loans .....	20,011,236	22,708,007
Drinking Water State Revolving Fund Loan .....	65,612,800	69,844,046
Total Long-Term Debt .....	<u>463,619,285</u>	<u>478,617,199</u>
<b>CURRENT LIABILITIES</b>		
Current Maturities of Long-Term Debt .....	13,378,017	13,153,017
Current Maturities of Long-Term Liabilities .....	181,355	185,889
Accrued Taxes .....	1,556,338	1,492,476
Accrued Expenses and Contracts Payable .....	1,369,234	1,547,790
Salaries, Wages and Fringe Benefits Payable .....	725,775	680,647
Interest Payable .....	1,859,887	1,898,294
Customers' Deposits .....	356,929	349,725
Interfund Payables .....	1,096,829	1,678,889
Total Current Liabilities .....	<u>20,524,364</u>	<u>20,986,727</u>
<b>LONG-TERM LIABILITIES</b>		
Muckleshoot Agreements .....	6,762,451	6,943,806
Customer Advances for Construction .....	5,905,910	4,748,046
Unearned Revenue .....	7,609,819	7,568,812
Long-Term Accrued Compensated Absences .....	2,068,503	2,428,375
Net Pension Liability .....	8,278,522	7,788,151
Other Long-Term Liabilities .....	4,831,577	4,455,228
Total Long-Term Liabilities .....	<u>35,456,782</u>	<u>33,932,418</u>
TOTAL LIABILITIES .....	<u>519,600,431</u>	<u>533,536,344</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Rate Stabilization .....	35,575,447	35,575,447
Deferred Inflows for Pensions .....	1,783,742	521,374
Total Deferred Inflows of Resources .....	<u>37,359,189</u>	<u>36,096,821</u>
<b>TOTAL NET POSITION, LIABILITIES, AND DEFERRED INFLOWS</b>	<u><u>\$1,113,676,255</u></u>	<u><u>\$1,119,285,391</u></u>

*This page has been left blank intentionally.*

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	YEAR ENDED DECEMBER 31,	
	2017	2016
<b>OPERATING REVENUES</b>		
Sale of Water .....	\$79,999,893	\$77,980,741
Other Operating Revenues .....	10,059,774	9,997,213
Contract Resource Obligation Revenues .....	4,584,754	4,823,656
Total Operating Revenues .....	94,644,421	92,801,610
 <b>OPERATING EXPENSES</b>		
Operations .....	17,881,176	17,211,669
Production .....	14,801,501	14,334,563
Administrative and General .....	16,369,139	15,348,131
Depreciation .....	24,038,103	23,822,527
Taxes .....	4,776,164	4,639,031
Total Operating Expenses .....	77,866,083	75,355,921
 Net Operating Income .....	16,778,338	17,445,689
 <b>NON-OPERATING REVENUES (EXPENSES)</b>		
Interest Income .....	1,762,813	1,826,299
Other .....	1,216,295	(221,125)
Interest on Long-Term Debt (Net of AFUDC) .....	(19,675,339)	(20,270,161)
Amortization of Premium and Loss on Refunding ..	1,354,254	1,269,625
Total Non-Operating Expenses .....	(15,341,977)	(17,395,362)
 Net Income Before Capital Contributions and Transfers .....	1,436,361	50,327
 Capital Contributions		
Cash .....	5,510,752	5,707,338
Donated Fixed Assets .....	3,627,682	4,566,692
Federal BAB Subsidies .....	3,582,475	3,577,355
Grants .....	-	1,752
Transfers		
City of Tacoma Gross Earnings Tax .....	(7,143,861)	(6,753,061)
Transfer to/from Other Funds .....	51,000	-
 <b>CHANGE IN NET POSITION</b> .....	7,064,409	7,150,403
 <b>NET POSITION - BEGINNING OF YEAR</b> .....	549,652,226	542,501,823
 <b>TOTAL NET POSITION - END OF YEAR</b> .....	\$556,716,635	\$549,652,226

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

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31,	
	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash from Customers .....	\$95,231,637	\$93,706,684
Cash Paid to Suppliers .....	(21,982,429)	(18,676,633)
Cash Paid to Employees .....	(26,213,607)	(25,874,134)
Taxes Paid .....	(4,712,302)	(5,010,207)
Net Cash From		
Operating Activities .....	42,323,299	44,145,710
<b>CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES</b>		
Transfer to Other Funds .....	51,000	-
Transfer Out for Gross Earnings Tax .....	(7,143,861)	(6,753,061)
Net Cash From Non-Capital		
Financing Activities .....	(7,092,861)	(6,753,061)
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Capital Expenditures, net.....	(14,041,704)	(13,598,285)
Proceeds from State Drinking Water Loan .....	-	16,800,000
Debt Issuance Costs .....	-	13,680
Principal Payments on Long-Term Debt .....	(13,153,019)	(12,370,124)
Principal Payments on Muckleshoot LT Liability ...	(185,889)	(190,536)
Interest Paid .....	(20,053,586)	(20,637,794)
BABs Federal Interest Subsidies .....	3,581,515	3,577,675
Grants Received .....	-	1,752
Contributions in Aid of Construction .....	5,510,752	5,707,338
System Development Charges & Other LT Liabilities.	1,575,222	220,270
Net Cash From Capital and		
Related Financing Activities .....	(36,766,709)	(20,476,024)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Interest Received on Investments .....	1,762,813	1,826,299
Other Net Non-Op Revenues and Expenses .....	1,216,295	(234,804)
Net Cash From Investing Activities .....	2,979,108	1,591,495
Net Change in Cash and Equity in		
Pooled Investments .....	1,442,837	18,508,120
Cash & Equity in Pooled Investments at January 1 ...	211,596,081	193,087,961
Cash & Equity in Pooled Investments at December 31 .	\$213,038,918	\$211,596,081

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



	YEAR ENDED DECEMBER 31,	
	2017	2016
<b>Reconciliation of Net Operating Income to</b>		
<b>Net Cash From Operating Activities:</b>		
Net Operating Income .....	\$16,778,338	\$17,445,689
Adjustments to reconcile net operating income to net cash provided by operating activities:		
Depreciation .....	24,038,103	23,822,527
Pension (Credits) Expense .....	2,075,803	1,358,655
Cash from changes in operating assets and liabilities:		
Accounts Receivable and Unbilled Revenue .....	(476,036)	(37,301)
Interfund Receivables .....	38,708	578,060
Regulatory Asset-Public Fire Protection Fees ....	840,366	827,572
Regulatory Asset-Surcharges.....	215,682	113,871
Materials and Supplies .....	(61,757)	145,527
Prepayments .....	(121,614)	(147,731)
Accrued Taxes .....	63,862	(371,176)
Salaries, Wages and Fringe Benefits Payable .....	45,128	96,319
Long-Term Accrued Compensated Absences .....	(359,872)	87,949
Customers' Deposits .....	7,204	932
Accrued Expenses and Contracts Payable .....	(178,556)	128,920
Interfund Payables .....	(582,060)	95,897
Total Adjustments .....	<u>25,544,961</u>	<u>26,700,021</u>
Net Cash From Operating Activities	<u>\$42,323,299</u>	<u>\$44,145,710</u>
Reconciliation of Cash and Equity in Pooled Investments to Balance Sheet:		
Cash and Equity in Pooled Investments in Special Funds .....	\$153,962,378	\$156,827,483
Cash and Equity in Pooled Investments in Operating Funds .....	<u>59,076,540</u>	<u>54,768,598</u>
Cash and Equity in Pooled Investments at December 31 .....	<u>\$213,038,918</u>	<u>\$211,596,081</u>

**CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER**

**NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED DECEMBER 31, 2017 AND 2016**

**NOTE 1 OPERATIONS**

**OPERATIONS OF TACOMA WATER** – The Division, doing business as Tacoma Water, is a division of the City of Tacoma, Washington (the City), Department of Public Utilities (the Department) and is included as an enterprise fund in the Comprehensive Annual Financial Report (CAFR) of the City. The Department consists of Tacoma Power, Tacoma Water and Tacoma Rail and is governed by a five-member Public Utility Board (the Board) appointed by the City Council. Certain matters relating to utility operations such as system expansion, issuance of bonds and fixing of utility rates and charges are initiated and executed by the Board, but also require formal City Council approval.

Tacoma Water owns and operates the City's Water System which includes a surface water supply source (the Watershed); several extensive well fields; a water transmission system consisting of several pipelines, water treatment and quality facilities; various reservoirs, standpipes and pump stations; and an extensive distribution system. Tacoma Water supplies water to approximately 101,871 customers and had 236 employees as of December 31, 2017. Tacoma Water's service area includes the City of Tacoma and urbanized areas of Pierce and South King Counties. Water service outside the City limits is provided under franchises granted by both Pierce and King Counties and multiple other cities. Tacoma Water is organized functionally as Water Distribution Engineering, Water Distribution Operations, Water Quality, Water Supply, Asset and Information Management, and Water Finance and Analytics.

**WATER DISTRIBUTION ENGINEERING** – To plan, forecast and model distribution system expansion and renewal and replacements; engineer, design, and oversee construction of mains, hydrants, services, meters, pressure reducing valves and pressure zones; provide excellent customer service and key account management; support growth and development through coordination, permitting and contracting; promote water conservation through outreach and customer programs.

**WATER DISTRIBUTION OPERATIONS** – To effectively operate and maintain the various components of the distribution system including mains, hydrants, valves, services and meters; to respond to and repair main breaks and leaks; to install new services and hydrants as needed for development; to manage the warehouse and materials purchasing; to provide customer service for outages and all other water service issues; to oversee and manage the apprenticeship program; and to provide effective leadership for Tacoma Water's safety program.

**WATER QUALITY** – To manage, operate and maintain the Green River Headworks and Watershed; to assure natural resource management of Water utility lands including the Watershed; to provide for fish and wildlife habitat management; to install, operate and maintain water treatment equipment within the system; to respond to all matters relating to water quality from the source to the customer; to monitor for contaminants and assure regulatory compliance; to participate in shaping water quality legislation and regulations; to be aware of changes in water system security needs and to coordinate as needed; to support wholesale water customers.

**WATER SUPPLY** – Designs, constructs, operates and maintains the following of the City's water supply structures: transmission mains and appurtenances, rights-of-ways, wells, pump stations and other mechanical/electrical equipment, storage tanks and reservoirs, pressure reducing stations, Tacoma Water buildings and properties, communication and telemetry systems (including the Water Control Center), corrosion control facilities, and administers water rights and tracks water system security issues, while overseeing and managing Tacoma Water's emergency preparedness and coordinating with outside agencies.

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

**WATER ASSET AND INFORMATION MANAGEMENT** – Prepares system and strategic plans, supports Tacoma Water’s Geographic Information System and Hydraulic Model operating technologies, promotes use and maturity of TPU information technologies, and oversees asset management implementation which incorporates risk, levels of service, and lifecycle costs into the Tacoma Water decision making process.

**WATER FINANCE AND ANALYTICS** – Is responsible for the utility’s long range financial plan, rates and charges, budget development and monitoring, and rate and financial policies. This group provides financial, supply and demand, and customer analytics and reports to support decision-making by executive management, policymakers and the Regional Water Supply System Partners. This group develops and administers special retail and wholesale water supply agreements in pursuit of the utility’s strategic objectives, and is responsible for leading new performance management, risk management, and advanced metering objectives through cross-functional engagement with the utility and TPU.

**REGIONAL WATER SUPPLY SYSTEM** – The Regional Water Supply System (RWSS) is a partnership formed by Tacoma, the City of Kent, Covington Water District and Lakehaven Utility District (the “Participants”) to permit, design, finance, construct, operate, maintain and receive delivery of water from the Second Supply Project. The Second Supply Project consists of the following components: (i) water from the exercise of Tacoma Water’s Second Diversion Water Right, (ii) the Second Supply Pipeline, (iii) improvements made at the Headworks diversion dam and intake, (iv) Second Supply Project fisheries and environmental enhancements, (v) the right to store water as a result of the Howard Hanson Dam Additional Storage Project, and (vi) associated Treatment Facilities. Participants’ rights and obligations with regard to the Second Supply Project are called out in the Second Supply Project Agreement. For additional information see Note 6.

### NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**BASIS OF ACCOUNTING AND PRESENTATION** – The financial statements of the Division are prepared under the accrual basis of accounting in accordance with GAAP issued by the Governmental Accounting Standards Board (GASB) applicable to governmental entities that use proprietary fund accounting. The financial statements use a flow of economic resources measurement focus to determine financial position and the change in financial position. The accounting principles used are similar to those applicable to business in the private sector and are maintained on the accrual basis of accounting. Revenues are recognized when earned, and costs and expenses are recognized when incurred.

The Division follows the provisions set forth in regulatory accounting guidance. In general, regulatory accounting permits an entity with cost-based rates to defer certain costs or income that would otherwise be recognized when incurred to the extent that the rate-regulated entity is recovering or expects to recover such amounts in rates charged to its customers.

The Division generally follows the uniform system of accounts prescribed by the National Association of Regulatory Utility Commissioners and the Division of Audits of the State Auditor’s Office.

**CASH AND EQUITY IN POOLED INVESTMENTS** – The Division’s fund cash balances are a “deposit” with the City Treasurer’s Tacoma Investment Pool (TIP) for the purpose of maximizing interest earnings through pooled investment activities. Cash and equity in pooled investments in the TIP are reported at fair value and changes in unrealized gains and losses are recorded in the Statements of Revenues, Expenses and Changes in Net Position. Interest earned on such pooled investments is allocated daily to the participating funds based on each fund’s daily equity in the TIP.

The TIP operates like a demand deposit account in that all City departments, including the Division, have fund balances which are their equity in the TIP. Accordingly, balances are considered to be cash equivalents.

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

---

The City of Tacoma Investment Policy permits legal investments as authorized by state law including Certificates of Deposit with qualified public depositories (as defined in Chapter 39.58 of the Revised Code of Washington (RCW)), obligations of the U.S. Treasury, Government Sponsored Agencies and Instrumentalities, bonds issued by Washington State and its Local Governments with an A or better rating, general obligation bonds issue by any State or Local Government with an A or better rating, Bankers' Acceptances, Commercial Paper, Repurchase and Reverse Repurchase agreements, and the Washington State Local Government Investment Pool (LGIP). Daily liquidity requirement to meet the City's daily obligations is maintained by investing a portion of the City's Investment Pool in the LGIP and in certificates of deposit with East West Bank and Opus Bank.

The Division's equity in that portion of the City of Tacoma Investment Pool held in qualified public depositories at December 31, 2017 and 2016 is entirely covered by the Federal Deposit Insurance Corporation (FDIC) and the Washington State Public Deposit Protection Commission (WSPDPC).

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, longer term investments have greater exposure to changes in market interest rates. The City of Tacoma investment policy allows for authorized investments up to 60 months to maturity. One way the City manages its exposure to interest rate risk is by timing cash flows from maturities so that portions of the portfolio are maturing over time to provide cash flow and liquidity needed for operations.

Credit risk is generally the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Repurchase agreements and commercial paper are protected by the Federal Deposit Insurance Corporation (FDIC) insurance up to \$250,000. All deposits not covered by the FDIC are covered by the WSPDPC. The WSPDPC is a statutory authority established under RCW 39.58. It constitutes a fully insured or fully collateralized pool. The WA State Treasures LGIP is authorized by RCW 43.250. The LGIP is operated like a 2A7 fund and is collateralized by short-term legal investments.

**ACCOUNTS RECEIVABLE AND ACCRUED UNBILLED REVENUES** – Accounts receivable consist of amounts owed by private individuals and organizations for goods delivered or services rendered in the regular course of business operations. Receivables are shown net of allowances for doubtful accounts. The Division accrues an estimated amount for services that have been provided but not billed as of December 31st.

**ALLOWANCE FOR DOUBTFUL ACCOUNTS** – A reserve has been established for uncollectible accounts receivable based on historical write-off trends and knowledge of specific circumstances that indicate collection of an account may be unlikely. Generally accounts receivable are considered past due after 30 days.

**INTERFUND TRANSACTIONS** – Unsettled transactions between City funds at year end are recorded as due to or due from other funds.

**MATERIALS AND SUPPLIES INVENTORY** – Materials and supplies consist primarily of items for maintenance of Division assets and are valued at the lower of average cost or fair market value.

**RESTRICTED ASSETS** – In accordance with bond resolutions, agreements and laws, separate restricted funds have been established. These funds consist of cash and investments in pooled investments with restrictions externally imposed and legally enforceable, established by the City Council. Generally, restricted assets include bond construction, reserve and debt service funds, system development charges funds, notes and contracts receivable, and customer deposits.

**BOND PREMIUM AND LOSS ON REFUNDING** – Bond premiums are amortized over the life of the bonds using the weighted average of the bonds outstanding. Losses on refunding are amortized on a straight-line basis over the applicable bond period.

---

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

---

**RATE STABILIZATION** – The Division has established a rate stabilization account to reduce significant year-to-year variations in rates. Amounts deposited into the account are excluded from the statement of revenues, expenses and changes in net position in accordance with regulated operations. Revenue will be recognized in subsequent periods when it is withdrawn in accordance with rate decisions and debt service covenants.

**UTILITY PLANT AND DEPRECIATION** – Utility plant is stated at original cost, which includes both direct costs of construction or acquisition and indirect costs. The cost of maintenance and repairs is charged to expense as incurred, while the cost of replacements and betterments is capitalized. Assets are capitalized when costs exceed \$5,000 and the useful life exceeds one year.

Depreciation is recorded using a straight-line composite method based on National Association of Regulatory Utility Commissioners (NARUC) recommended economic asset lives from 13 to 60 years for related operating assets placed in service at the beginning of the year. The original cost of property together with removal cost, less salvage, is charged to accumulated depreciation at such time as property is retired and removed from service.

The economic lives for plant in service are as follows:

Source of Supply Plant	34 years
Pumping Plant	40 years
Water Treatment Plant	28 years
Transmission Plant	60 years
Distribution Plant	53 years
General Plant	13 years

**CONSTRUCTION WORK IN PROGRESS** – Capitalizable costs incurred on projects which are not in service or ready for use are held in construction in progress. When the asset is ready for service, related costs are transferred to capital assets. Upon determining that a project will be abandoned, the related costs are charged to expense.

**ASSET VALUATION** – The Division periodically reviews the carrying amount of its long-lived assets for impairment. An asset is considered impaired when estimated future cash flows are less than the carrying amount of the asset. In the event the carrying amount of such asset is not deemed recoverable, the asset is adjusted to its estimated fair value. Fair value is generally determined based on discounted future cash flows.

**ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION (AFUDC)** – AFUDC represents the cost of borrowed funds used for the construction of utility plant, net of interest earned on unspent construction funds. Capitalized AFUDC is shown as part of the cost of utility plant and as a reduction of interest income and expense.

**CONTRIBUTIONS IN AID OF CONSTRUCTION AND SYSTEM DEVELOPMENT CHARGES** – GASB Statement No. 33, which addresses accounting for contributed capital, requires that contributed capital be recognized as change in net position. Capital contributions include new service connections and system development charges. System development charges are collected on all new services prior to installation to ensure required new source, transmission and storage facilities needed to meet new demands are funded. The charge was developed using a cost-of-service approach and includes a share of historical plant investment and projected future outlays that will increase system capacity. Because the funds collected for this charge can only be used for system expansion projects, the balance is reflected as restricted in the Division's net position. System development charges on uncompleted projects are recorded in other long term liabilities.

**REGULATORY ASSETS** – The Division has deferred Public Fire Protection Fees, Hyada Surcharges, Andrain Surcharges and Curran Road Surcharges to future periods matching the time when the revenues and expenses are included in rates. The deferred balance is reduced as fees

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

and surcharges are recovered and amortized as expenses on the statements of revenues, expenses and changes in net position.

**INTANGIBLE ASSETS** – In accordance with GAAP land use rights such as easements and right-of-ways are recorded as intangible assets.

**COMPENSATED ABSENCES** – The City has two different policies for compensated absences. The City's original policy allows employees to accrue vacation based on the number of years worked with a maximum accrual equal to the amount earned in a two-year period. These employees also accrue one day of sick leave per month without any ceiling on the maximum accrued. The City implemented a new policy in 1998 allowing employees to earn PTO (personal time off) without distinction between vacation and sick leave. Employees who worked for the City prior to the change could choose to stay with the original policy or opt to convert to the new policy. The amount of PTO earned is based on years of service. The maximum accrual for PTO is 960 hours, and upon termination, employees are entitled to compensation for unused PTO at 100%. Vacation pay and PTO are recorded as a liability and expense in the year earned.

Employees in the original policy accumulate sick leave at the rate of one day per month with no maximum accumulation specified. Employees receive 25% of the value at retirement or 10% upon termination for any other reason. In the event of death, beneficiaries receive 25% of the value. Sick leave pay is recorded as a liability and an expense in the year earned.

The accrued liability is computed at 100% vacation and PTO while sick leave is accrued at 10%, which is considered the amount vested or 25% if the employee meets retirement criteria. Based on historical information, 10% of compensated absences are considered short term.

**OPERATING REVENUE** – Service rates are authorized by the Tacoma City Council. Revenues are recognized as earned and include an estimate of revenue earned but not billed to customers as of year-end. Utility revenues are derived primarily from the sale and transmission of water. Utility revenue from water sales is recognized when the water is delivered to and received by the customer.

Tacoma Water receives contract resource obligation revenue and debt service payments from our partners in the Second Supply Project Agreement which are recorded as operating revenue.

**NON-OPERATING REVENUES AND EXPENSES** – These are items that do not qualify as operating defined above such as interest and gain (loss) on disposition of property.

**TAXES** – The City charges the Division a Gross Earnings Tax at the rate of 8.0%. In addition, the Division pays a 5.029% public utility tax to the State on a certain portion of revenues identified as utility revenues. The Division also pays business and occupation tax to the State at the rate of 1.8% on certain other non-utility revenues. The Division is exempt from payment of federal income tax.

**NET POSITION** – The Statement of Net Position reports all financial and capital resources. The difference between assets and deferred outflows and liabilities and deferred inflows is net position. There are three components of net position: net investment in capital assets, restricted or unrestricted.

Net investment in capital assets consists of capital assets, less accumulated depreciation, reduced by the outstanding balances of any bonds, loans or other borrowings, less outstanding construction funds that are attributable to the acquisition, construction, or improvements of those assets.

Net position components are restricted when constraints placed on net position use are either (1) externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

or regulations of other governments or (2) imposed by law through constitutional provisions or enabling legislation.

Unrestricted net position components are those that are not “net investment in capital assets” or “restricted” so that it can be used for daily operation of the Water Utility.

**ARBITRAGE REBATE REQUIREMENT** – The Division is subject to the Internal Revenue Code (“IRC”), Section 148(f), related to its tax-exempt revenue bonds. The IRC requires that earnings on gross proceeds of any revenue bonds that are in excess of the amount prescribed will be surrendered to the Internal Revenue Service. As such, the fund would record such a rebate as a liability. The Division had no liability in the current or prior year.

**SHARED SERVICES** – The Division receives certain services from other departments and agencies of the City, including those normally considered to be general and administrative. The Division is charged for services received from other City departments and agencies.

**USE OF ESTIMATES** – The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. The Division used estimates in determining reported unbilled revenues, allowance for doubtful accounts, accrued compensated absences, depreciation, Other Post Employment Benefit (OPEB), pension, self-insurance liabilities and other contingencies. Actual results may differ from these estimates.

**SIGNIFICANT RISKS AND UNCERTAINTIES** – The Division is subject to certain business risks that could have a material impact on future operations and financial performance. These risks include, but are not limited to, water conditions, weather and natural disaster-related disruptions, collective bargaining labor disputes, fish and other endangered species act issues, Environmental Protection Agency regulations and federal government regulations.

### NOTE 3 INVESTMENTS MEASURED AT FAIR VALUE

The City measures and records its investments within the fair value hierarchy established by generally accepted accounting principles.

The hierarchy is based on the valuation inputs used to measure the fair value of the asset, where fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. These guidelines recognize a three-tiered fair value hierarchy, as follows:

- Level 1 – Level 1 inputs are quoted (unadjusted) prices in active markets for identical assets or liabilities that the government can access at the measurement date. Observable markets include exchange markets, dealer markets, brokered markets and principal-to-principal markets.
- Level 2 – Level 2 inputs are other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These inputs are sourced from pricing vendors using models that are market-based and corroborated by observable market data including: quoted prices; nominal yield spreads; benchmark yield curves; and other corroborated inputs.
- Level 3 – Level 3 inputs are unobservable inputs for the asset or liability and should only be used when relevant Level 1 or Level 2 inputs are unavailable.

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

The fair value evaluations are provided by Interactive Data. Interactive Data utilizes evaluated pricing models that vary by asset class and incorporate available trade, bid and other market information and for structured securities, cash flow and, when available, loan performance data. Because many fixed income securities do not trade on a daily basis, Interactive Data's evaluated pricing applications apply available information as applicable through processes such as benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing, to prepare evaluations. In addition, Interactive Data uses model processes, such as the Option Adjusted Spread model to assess interest rate impact and development payment scenarios. Their models and processes take into account market convention. For each asset class, a team of evaluators gathers information from market sources and integrates relevant credit information, perceived market movements and sector news into the evaluated pricing applications and models.

Cash and cash equivalents include highly liquid investments including short-term investment funds. Cash and cash equivalents are valued at cost and, therefore, excluded from the fair value schedule.

Data regarding the City's investments, valued and categorized according to the above outlined levels, is below:

Debt Securities	As of			
	12/31/2017	Level 1	Level 2	Level 3
U.S. Treasury Securities	\$ 218,142,864	\$ -	\$ 218,142,864	\$ -
U.S. Agency Securities	517,345,818	-	517,345,818	-
Supranational Securities	19,966,040	-	19,966,040	-
Municipal Bonds	40,760,727	-	40,760,727	-
<b>Total</b>	<b>\$ 796,215,449</b>	<b>\$ -</b>	<b>\$ 796,215,449</b>	<b>\$ -</b>

Debt Securities	As of			
	12/31/2016	Level 1	Level 2	Level 3
U.S. Treasury Securities	\$ 146,824,628	\$ -	\$ 146,824,628	\$ -
U.S. Agency Securities	544,579,831	-	544,579,831	-
Municipal Bonds	61,450,051	-	61,450,051	-
<b>Total</b>	<b>\$ 752,854,510</b>	<b>\$ -</b>	<b>\$ 752,854,510</b>	<b>\$ -</b>

Tacoma Water's share of the City Investments shown in the table above is 23.01% and 24.45% as of December 31, 2017 and 2016.



**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

**NOTE 4 UTILITY PLANT**

A summary of the balances and changes in utility plant for 2017 and 2016 follows:

	Balance December 31, 2016			Transfers & Adjustments	Balance December 31, 2017	
	Additions	Retirements		Additions	Retirements	
Intangible Plant	\$ 36,581,485	\$ 561,168	\$ (220,314)	\$ -		\$ 36,922,339
Source of Supply Plant	85,484,873	467,498	-	-		85,952,371
Pumping Plant	9,543,873	158,143	-	-		9,702,016
Water Treatment Plant	230,820,998	12,026,741	-	-		242,847,739
Transmission Facilities	230,989,672	7,250	(1,423,664)	-		229,573,258
Distribution Facilities	444,794,626	12,355,245	(592,914)	-		456,556,957
General Plant	35,782,039	1,107,115	-	(7,622)		36,881,532
Total Water Plant in Service	1,073,997,566	26,683,160	(2,236,892)	(7,622)		1,098,436,212
Less Accumulated Depreciation	(215,021,698)	(24,038,103)	2,005,998	234,380		(236,819,423)
	858,975,868	2,645,057	(230,894)	226,758		861,616,789
Construction Work in Progress	20,571,782	20,188,617	-	(28,858,415)		11,901,984
Net Utility Plant	\$ 879,547,650	\$ 22,833,674	\$ (230,894)	\$ (28,631,657)		\$ 873,518,773

	Balance December 31, 2015			Transfers & Adjustments	Balance December 31, 2016	
	Additions	Retirements		Additions	Retirements	
Intangible Plant	\$ 36,367,666	\$ 783,399	\$ (569,580)	\$ -		\$ 36,581,485
Source of Supply Plant	83,671,496	1,813,377	-	-		85,484,873
Pumping Plant	9,400,042	143,831	-	-		9,543,873
Water Treatment Plant	229,764,871	1,056,127	-	-		230,820,998
Transmission Facilities	230,986,906	2,766	-	-		230,989,672
Distribution Facilities	433,734,385	13,210,948	(2,150,707)	-		444,794,626
General Plant	34,608,449	1,189,967	(16,377)	-		35,782,039
Total Water Plant in Service	1,058,533,815	18,200,415	(2,736,664)	-		1,073,997,566
Less Accumulated Depreciation	(194,443,324)	(23,822,527)	2,167,084	1,077,069		(215,021,698)
	864,090,491	(5,622,112)	(569,580)	1,077,069		858,975,868
Construction Work in Progress	20,630,616	18,141,410	-	(18,200,244)		20,571,782
Net Utility Plant	\$ 884,721,107	\$ 12,519,298	\$ (569,580)	\$ (17,123,175)		\$ 879,547,650

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

Total Water Plant in Service includes non-depreciable assets of \$59,468,271 for 2017 and \$59,139,334 for 2016. The total amount of interest incurred and capitalized is \$492,012 for 2017 and \$484,093 for 2016.

**NOTE 5 LONG-TERM DEBT**

The Division's Long-term Liabilities are primarily for the purpose of capital improvements. Long-term debt activities for 2017 and 2016 were as follows:

	Balance December 31, 2016	Additions	Reductions	Balance December 31, 2017	Due Within One Year
Revenue Bonds	\$ 378,625,000	\$ -	\$ (6,225,000)	\$ 372,400,000	\$ 6,450,000
Plus: Unamortized Premium	13,665,146	-	(1,619,897)	12,045,249	-
Net Revenue Bonds	392,290,146	-	(7,844,897)	384,445,249	6,450,000
Public Works Trust Fund Loans	25,404,777	-	(2,696,770)	22,708,007	2,696,771
Drinking Water State Revolving Fund Loans	74,075,293	-	(4,231,247)	69,844,046	4,231,246
Total Long-Term Debt	<u>\$ 491,770,216</u>	<u>\$ -</u>	<u>\$ (14,772,914)</u>	<u>\$ 476,997,302</u>	<u>\$ 13,378,017</u>
	Balance December 31, 2015	Additions	Reductions	Balance December 31, 2016	Due Within One Year
Revenue Bonds	\$ 384,705,000	\$ -	\$ (6,080,000)	\$ 378,625,000	\$ 6,225,000
Plus: Unamortized Premium	15,216,093	-	(1,550,947)	13,665,146	-
Net Revenue Bonds	399,921,093	-	(7,630,947)	392,290,146	6,225,000
Public Works Trust Fund Loans	28,101,548	-	(2,696,771)	25,404,777	2,696,771
Drinking Water State Revolving Fund Loans	60,868,644	16,800,000	(3,593,351)	74,075,293	4,231,246
Total Long-Term Debt	<u>\$ 488,891,285</u>	<u>\$ 16,800,000</u>	<u>\$ (13,921,069)</u>	<u>\$ 491,770,216</u>	<u>\$ 13,153,017</u>

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

Tacoma Water's long-term debt at December 31 consists of the following payable from revenues of Tacoma Water:

**SENIOR LIEN BONDS**

	2017	2016
2005 Water System Revenue and Refunding Bonds, with interest rate of 5.0%, due in 2025.		
Original Issue: \$46,550,000	\$ 5,000	\$ 5,000
Current Portion: \$0		
2009 Water System Revenue Bonds, with interest rate at 5.751%, with Build America Bond (BAB) rebate ranging from 32.45% to 32.62%, due in yearly installments starting in 2033 ranging from \$9,800,000 to \$12,210,000 through 2039.		
Original Issue: \$76,775,000	76,775,000	76,775,000
Current Portion: \$0		
2010A Water System Revenue Refunding Bonds, with interest rates ranging from 4.0% to 5.0%, due in yearly installments ranging from \$3,935,000 to \$4,655,000 through 2023.		
Original Issue: \$29,100,000	25,825,000	26,395,000
Current Portion: \$3,935,000		
2010B Water System Revenue Bonds, with interest rates ranging from 4.581% to 5.621%, with Build America Bond (BAB) Rebate ranging from 32.45% to 32.62% of interest, due in yearly installments starting in 2024 ranging from \$2,115,000 to \$15,390,000 through 2040.		
Original Issue: \$74,985,000	74,985,000	74,985,000
Current Portion: \$0		
2010A Regional Water Supply System Revenue Bonds, with interest rates ranging from 3.0% to 4.0%, due in yearly installments ranging from \$290,000 to \$355,000 through 2024. (See Note 6)		
Original Issue: \$3,595,000	2,245,000	2,525,000
Current Portion: \$290,000		

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

**SENIOR LIEN BONDS CONTINUED**

	2017	2016
2010B Regional Water Supply System Revenue Bonds, with interest rates ranging from 5.371% to 5.621%, with Build America Bond (BAB) rebate ranging from 32.45% to 32.62% of interest, due in yearly installments starting in 2025 ranging from \$370,000 to \$5,775,000 through 2040. (See Note 6)		
Original Issue: \$44,245,000	44,245,000	44,245,000
Current Portion: \$0		
2013 Water System Revenue and Refunding Bonds, with interest rates of 4.0%, due in yearly installments starting in 2041 ranging from \$23,820,000 to \$25,765,000 through 2043.		
Original Issue: \$78,305,000	74,355,000	74,355,000
Current Portion: \$0		
2013 Regional Water Supply System Revenue and Refunding Bonds, with interest rates ranging from 4.0% to 5.0%, due in yearly installments ranging from \$765,000 to \$6,425,000 through 2032. (See Note 6)		
Original Issue: \$64,795,000	60,165,000	60,910,000
Current Portion: \$765,000		
2015A Water System Refunding Bonds with interest rates ranging from 4.0% to 5.0%, due in yearly installments ranging from \$1,460,000 to \$2,025,000 through 2025.		
Original Issue: \$16,645,000	13,800,000	16,645,000
Current Portion: \$1,460,000		
2015B Water System Refunding Bonds with interest rate of 1.15%, final installment due in the amount of \$1,785,000 in 2017.		
Original Issue: \$6,365,000	-	1,785,000
Current Portion: \$0		
Subtotal Sr. Lien Debt	\$ 372,400,000	\$ 378,625,000
Unamortized Premium	12,045,249	13,665,146
Less Current Portion of Revenue Bond Debt	<u>(6,450,000)</u>	<u>(6,225,000)</u>
Long-term Portion of Revenue Bond Debt	<u>\$ 377,995,249</u>	<u>\$ 386,065,146</u>

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

Scheduled principal maturities on the bonds and interest payments are as follows:

Year	Principal	Interest
2018	\$ 6,450,000	\$ 18,690,919
2019	7,610,000	18,428,169
2020	7,950,000	18,094,669
2021	8,355,000	17,703,369
2022	8,725,000	17,333,568
2023-2027	48,715,000	79,968,002
2028-2032	60,640,000	66,446,937
2033-2037	88,350,000	47,711,156
2038-2042	109,840,000	20,934,445
2043	25,765,000	1,030,600
	<u>\$ 372,400,000</u>	<u>\$ 306,341,834</u>

Tacoma Water's revenue bonds are secured by the net revenue of Tacoma Water and all cash and investments held in the bond funds and construction funds. The bonds are also subject to certain financial and non-financial covenants. The Division was in compliance with all debt covenants at December 31, 2017.

The carrying amounts of the Washington State Public Works Board Loans and Drinking Water State Revolving Fund Loans approximate the fair value since such loans are exclusive and have no market.

**JUNIOR LIEN DEBT**

	2017	2016
<b>Public Works Trust Fund Loans</b>		
2001 Public Works Trust Fund pre-construction loan for the Second Supply Project (SSP) Howard Hanson Dam Additional Storage Project, with interest of .5% per annum, due in yearly installments of \$52,632 through 2021.	\$ 210,526	\$ 263,158
2001 Public Works Trust Fund construction loan for the SSP, with interest of .5% per annum, due in yearly installments of \$533,333 through 2021.	2,133,334	2,666,667
2002 Public Works Trust Fund pre-construction loan for Middle and Headworks section of the SSP, with interest of .5% per annum, due in yearly installments of \$54,180 through 2021.	216,718	270,898

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

**JUNIOR LIEN DEBT CONTINUED**

	2017	2016
2002 Public Works Trust Fund construction loan for the Middle and Headworks section of the SSP, with interest of .5% per annum, due in yearly installments of \$531,250 through 2022.	2,656,250	3,187,500
2004 Public Works Trust Fund pre-construction loan for the design of the Green River Ozone Facility with interest of .5% per annum, due in yearly installments of \$53,363 through 2024.	373,538	426,901
2006 Public Works Trust Fund construction loan for the Green River Ozone Treatment Plant, with interest of .5% per annum, due in yearly installments of \$370,588 through 2026.	3,335,294	3,705,882
2008 Public Works Trust Fund construction loan for the McMillin Reservoir Reconstruction, with interest of .5% per annum, due in yearly installments of \$545,870 through 2028.	6,004,569	6,550,439
2012 Public Works Trust Fund construction loan for the Green River Filtration Facility, with interest of .5% per annum, due in yearly installments of \$555,555 through 2031.	7,777,778	8,333,333
<b>Drinking Water State Revolving Fund Loans</b>		
2002 construction loan for the Portland Avenue Reservoir, with interest of 2.5% per annum, due in yearly installments of \$161,052 through 2021.	644,211	805,263
2008 construction loan for the McMillin Reservoir Reconstruction, with interest of 1.5% per annum, due in yearly installments of \$215,108 through 2028.	2,366,192	2,581,300
2009 construction loan for the McMillin Reservoir Reconstruction, with interest of 1.0% per annum, due in yearly installments of \$367,088 through 2032.	5,506,318	5,873,406
2010 construction loan for the McMillin Reservoir Reconstruction, with interest of 1.5% per annum, due in yearly installments of \$303,000 through 2032.	4,545,000	4,848,000

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

**JUNIOR LIEN DEBT CONTINUED**

	<u>2017</u>	<u>2016</u>
2010 construction loan for the Green River Water Treatment Plant Filtration Facility, with interest of 1.5% per annum, due in yearly installments of \$304,579 through 2034.	5,177,842	5,482,421
2011 construction loan for the McMillin Reservoir Reconstruction, with interest of 1.5% per annum, due in yearly installments of \$121,524 through 2033.	1,944,378	2,065,902
2011 construction loan for the Green River Water Treatment Plant Filtration Facility, with interest of 1.5% per annum, due in yearly installments of \$303,000 through 2035.	5,454,000	5,757,000
2012 construction loan for the Green River Water Treatment Plant Filtration Facility, with interest of 1.5% per annum, due in yearly installments of \$606,000 through 2035.	10,908,000	11,514,000
2013 construction loan for the Green River Water Treatment Plant Filtration Facility, with interest of 1.5% per annum, due in yearly installments of \$606,000 through 2035.	10,908,000	11,514,000
2013F construction loan for the Green River Water Treatment Plant Filtration Facility, with interest of 1.5% per annum, due in yearly installments of \$606,000 through 2035.	10,908,000	11,514,000
2015 construction loan for the Green River Water Treatment Plant Filtration Facility, with interest of 1.5% per annum, due in yearly installments of \$637,895 through 2035.	<u>11,482,105</u>	<u>12,120,000</u>
Subtotal Junior Lien Debt	92,552,053	99,480,070
Less Current Portion of Debt	<u>(6,928,017)</u>	<u>(6,928,017)</u>
Long-term Portion of Junior Lien Debt	<u>\$ 85,624,036</u>	<u>\$ 92,552,053</u>

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

Scheduled principal maturities of junior lien debt and interest payments are as follows:

Year	Principal	Interest
2018	\$ 6,928,017	\$ 1,082,701
2019	6,928,017	1,009,162
2020	6,928,017	935,624
2021	6,928,017	862,087
2022	6,126,820	788,548
2023-2027	27,447,173	2,975,436
2028-2032	22,258,626	1,453,465
2033-2035	9,007,366	244,693
	<u>\$ 92,552,053</u>	<u>\$ 9,351,716</u>

**NOTE 6 SECOND SUPPLY PROJECT AGREEMENT**

Four Washington municipalities are the Participants in the Second Supply Project under the terms of the Second Supply Project Agreement, which defines their rights and obligations with regard to the Second Supply Project. Tacoma Water has a 15/36 Participant Share and each of the City of Kent, Covington Water District and Lakehaven Utility District has a 7/36 Participant Share in the Second Supply Project. Each Participant has contractual rights under the Second Supply Project Agreement (i) to use an undivided share of the Project equal to its project capacity share and to use available excess project capacity; (ii) to schedule for delivery and receive its Participant Share of Second Diversion Water at its points of delivery; (iii) to schedule for delivery and receive additional water at its points of delivery; and (iv) to its Participant Share of storage. Each Participant has a contractual obligation (i) to receive Second Diversion Water and additional water scheduled for delivery and delivered to it and (ii) to pay its Participant Share of Project Costs, including but not limited to Fixed and Variable O & M Costs, Initial Project Construction Costs and Capital Expenditures. Kent and Covington, in the "Repayment Agreement", pledge to pay Tacoma Water a defined share of the principal and interest debt service on the Regional Water Supply System Bonds. The term of the Second Supply Project Agreement extends through the operating life of the Second Supply Project including all renewals and replacements thereof and additions thereto. The Second Supply Project Agreement provides that all obligations incurred during its term will survive its termination or expiration and will survive until satisfied.

**NOTE 7 SIGNIFICANT CUSTOMER**

Contracted sales to WestRock CP LLC accounted for 7.9% and 7.5% of Tacoma Water's total water sales in 2017 and 2016, respectively. There were no outstanding accounts receivables from WestRock at year-end 2017 or 2016.

Tacoma Water has contracted with WestRock to supply certain quantities of water at a specified rate through July 31, 2020.

**NOTE 8 FLEET SERVICES FUND**

Tacoma Water pays the Fleet Services Fund for the use of the vehicles and equipment to cover fleet operating expenses. Payments made by Tacoma Water in 2017 and 2016 were \$3,354,191 and \$2,148,122, respectively.

Fleet Services' management makes an annual assessment of the capital replacement reserve balance for appropriate funding levels. It is the Fund's policy to maintain the Fund's maximum balance at a level that will provide adequate purchasing power for a three-year cycle. The solvency of the Replacement Fund allowed Fleet Services to return a portion of interest earned on Fund investments for the year to their customers. In 2017 and 2016, Fleet Services returned 75% of the



## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

interest earned on the capital replacement reserve to Tacoma Water's replacement fund. The amounts refunded in 2017 and 2016 were \$38,840 and \$36,966, respectively, which was used to offset the corresponding year's fleet expenses.

### NOTE 9 SELF-INSURANCE FUND

The Department of Public Utilities maintains a self-insurance program and insurance policies. The Department has established a self-insurance fund to insure Tacoma Water and other divisions within the Department for certain losses arising from personal and property damage claims by third parties. The major risks to Tacoma Water are flooding, wind damage, chemical spills and earthquakes. Mitigating controls and emergency and business resumption plans are in place. To the extent damage or claims exceed insured values, rates may be impacted.

Tacoma Water is required to make payments to the Self-Insurance Fund to cover claims incurred by Tacoma Water and administrative expenses of the Fund. Tacoma Water's premium payments were \$240,000 in 2017 and 2016. Assets in the Self-Insurance Fund total \$7.0 million which exceeds accrued and incurred but not reported liabilities. Equity in the Self-Insurance Fund is transferred to the appropriate operating divisions in accordance with GAAP. Management believes Tacoma Water's investment in the Self-Insurance Fund is more than adequate to settle all its known or estimated claims.

The City purchased a \$15 million Fiduciary Liability Policy with a \$100,000 deductible that provides for wrongful acts arising out of the administration of the City's employee benefit programs and a Crime policy with a \$1 million limit and \$75,000 deductible for employee dishonesty and for fraudulent or dishonest act by employees against the City for loss of money, securities and property.

Other insurance policies presently in effect include coverage on the Department's buildings and fleet vehicles as well as general liability and public official's liability. The current property insurance policy has a deductible of \$250,000 for buildings and property within buildings and \$10,000 per vehicle. General government obtains coverage on general government's buildings and property within buildings with a limit of \$500,000 and a retention of \$150,000 with exceptions. For the Department there is a self-insured retention of \$1.5 million for general liability. The public official liability policy has a \$200,000 deductible. The Department's total liability limit is \$60 million any one occurrence and \$60 million annual aggregate. The general government general liability and public official liability policies provide \$20 million of excess coverage with a \$3 million retention. The City has a policy to cover extraordinary worker's compensation claims with a statutory limit and a self-insured retention of \$1 million per occurrence and an additional \$250,000 for each 12 month policy period.

### NOTE 10 TACOMA EMPLOYEES' RETIREMENT SYSTEM FUND (TERS)

The Tacoma Employees' Retirement System (TERS or System), a pension trust fund of the City of Tacoma, issues a publicly available CAFR that includes financial statements and required supplementary information may be obtained by writing to:

Tacoma Employee's Retirement System  
3628 South 35th Street  
Tacoma, WA 98409

Or the TERS CAFR may be downloaded from the TERS website at [www.cityoftacoma.org/retirement](http://www.cityoftacoma.org/retirement).

**Administration of The System** - The "Tacoma Employees' Retirement System" is a cost-sharing, multiple-employer, defined benefit retirement plan covering substantially all employees of the City of Tacoma, with the exception of police officers, firefighters, and Tacoma Rail employees who are covered

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

by state and federal retirement plans. Employees of the Tacoma-Pierce County Health Department, as well as, certain employees of the Pierce Transit and South Sound 911 (formerly known as Law Enforcement Support Agency) who established membership in the System when these agencies were still City of Tacoma departments, are also members. The Board of Administration of the Tacoma Employees' Retirement System administers the plan and derives its authority in accordance with Chapter 41.28 RCW and Chapter 1.30 of the Tacoma City Code.

At the direction of the City Council, the System is administered by the Board of Administration (the Board) consisting of nine regular members and one alternate member. The members of the Board are: the Mayor, who serves as Chair; the Director of Finance; the City Manager (or designee); the Public Utilities Director (or designee); three elected employee representatives; one elected retired representative; and one City resident (not employed by the City) elected by the other eight members. The nine Board members appoint a TERS member, either active or retired, as an alternate Board member. The Board is required by the Tacoma Municipal Code to make annual reports to the City Council on the financial condition of the System. The Board, subject to City Council approval, appoints the Director who is responsible for managing the daily operations of the System.

The breakdown of membership as of December 31, 2016 (measurement date) is as follows:

Retirees and beneficiaries currently receiving benefits	2,303	
Terminated vested and other terminated participants	675	
Active members:		
City of Tacoma	2,687	
South Sound 911	2	
Pierce Transit	8	
Tacoma-Pierce County Health Department	267	
Total active members		2,964
Total membership		5,942

**Membership** - Substantially all employees of the City of Tacoma are members of the System, with the exception of police officers, firefighter, and Tacoma Rail employees, who are covered by state or federal retirement plans. Other members include employees of the Tacoma-Pierce County Health Department, and certain employees of the Pierce Transit and the South Sound 911 who established membership in the System when these agencies were still City of Tacoma departments.

**Benefits** - There are two formulas to calculate the retirement benefits. The benefit paid will be issued on the formula which provides the higher benefit. The most commonly applied formula, "service retirement", is a product of the member's average monthly salary for the highest, consecutive 24-month period, the number of years of membership credit, and a percentage factor (2% maximum) that is based on the member's age and years of service. The other formula is an annuity based on member contributions. There are several options available for the retiree to provide for their beneficiaries. The System also provides death, disability and deferred retirement. Additionally, the System provides cost of living adjustment (COLA) increases up to 2.125% as of July 1st of each year; the actual COLA granted is dependent on the Consumer Price Index (Seattle Area – all items) over the preceding calendar year.

Any active member who has not retired, and has five or more years of service as a member may purchase up to five additional years of service at the time of retirement. Total service including service purchased cannot exceed 30 years.

The System participates in the portability of public retirement benefits in Washington State public retirement. As provided under Chapter 4154 of the RCW, this allows a member to use all years of service with qualified Washington systems to determine retirement eligibility and percentage factor for benefits under the System.

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

**Contributions** - The participating employers are responsible for funding the System at a level sufficient to pay obligations and ensure the actuarial and financial soundness of the System. Contribution rates for the employer and the employee are recommended by the Board of Administration and final approval rests with the Tacoma City Council.

In fiscal year 2017, the required contribution rate for employees is 9.20% of their regular gross pay; the employer contributes 10.80%, for a combined total of 20.00%. On November 28, 2017 the Tacoma City Council approved the TERS Board's recommendation to increase the contribution rate by 1% (split 0.54% for employers and 0.46% for employees) effective the first pay period in February 2018, which is sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) of the System if future experience follows all actuarial assumptions. Changes to the contribution rate are subject to Sections 1.30.340 and 1.30.360 of the Tacoma Municipal Code.

**Significant Assumptions** - The following actuarial methods were used in the funding valuation.

Measurement Date	December 31, 2016
Valuation Date	January 1, 2017
Actuarial Cost Method	Entry Age Normal Funding is based on statutory contributions rate.
	This amount is compared to a 30-year amortization for the purposes of calculating the Actuarially Determined Contribution. The amortization method for the ADC is as follows:
Amortization Method	<ul style="list-style-type: none"><li>• Level percent</li><li>• Open periods</li><li>• 30 year amortization period at 01/01/2015</li><li>• 3.75% amortization growth rate</li></ul>
Asset Valuation Method	4 year smoothing period; Corridor - None
Inflation	2.75%
Salary Increases	Varies by service
Investment Rate of Return	7.00%
Cost of Living Adjustment	2.125%
Retirement Age	Varies by age, gender, eligibility
Turnover	Varies by service, and gender
Mortality	RP-2014 Mortality for Employees, Healthy and Disabled Annuitants. Generational improvements with projection scale based on Social Security Administration Data.

**Benefit and Assumption Changes** - The comparability of the data from year to year can be affected by changes in actuarial assumptions, benefit provisions, accounting policies, and other factors. The following changes in assumptions occurred since the January 1, 2016 Actuarial Valuation:

1. The amortization growth rate decreased from 4% to 3.75%
2. The inflation rate decreased from 3% to 2.75%
3. The investment rate of return decreased from 7.25% to 7%

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

**Target Allocations** - The long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman's (the System's actuary) investment consulting practice as of December 31, 2016. The target asset allocation is based on the Tacoma Employees' Retirement System Investment Policy Statement dated March 2016.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Investment Grade Fixed Income	15.0%	1.63%
US Inflation-Indexed Bonds	5.0%	1.21%
High Yield Bonds	9.0%	5.00%
Emerging Market Debt	5.0%	3.74%
Global Equity	41.5%	5.50%
Public Real Estate	2.0%	5.80%
Private Real Estate	2.5%	3.56%
Private Equity	10.0%	9.04%
Master Limited Partnerships	4.0%	4.12%
Timber	2.0%	3.79%
Infrastructure	2.0%	5.03%
Agriculture	2.0%	4.33%
Assumed Inflation - Mean		2.75%
Assumed Inflation - Standard Deviation		1.85%
Portfolio Arithmetic Real Mean Return		4.76%
Portfolio Median Nominal Geometric Return		6.72%
Portfolio Standard Deviation		11.77%
Long-Term Expected Rate of Return, net of investment expenses		7.00%

**Sensitivity Analysis** - The following presents the net pension liability (asset) of the System, calculated using the discount rate of 7%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6%) or 1 percentage point higher (8%) than the current rate.

	1% Decrease 6.00%	Current Discount Rate 7.00%	1% Increase 8.00%
Net Pension Liability (asset)	\$ 26,509,122	\$ 8,278,522	\$ (6,516,306)

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

As of December 31, 2017, the deferred inflows and outflows of resources are as follows:

	Deferred Inflows of Resources	Deferred Outflows of Resources
Difference Between Expected and Actual Experience	\$ (1,781,842)	\$ -
Changes of assumptions	-	2,749,460
Net Difference Between Projected and Actual Earnings	-	3,767,336
Changes in Employer Proportion	(1,900)	4,038
Contributions Made Subsequent to the Measurement Date	-	2,150,205
<b>Total</b>	<b>\$ (1,783,742)</b>	<b>\$ 8,671,039</b>

The net amount of deferred inflows and outflows, other than contributions made subsequent to the measurement date, will be recognized as pension expense in each of the next four years.

Amounts will be recognized in pension expense as follows:

Year-ended December 31,	
2018	\$ 1,475,069
2019	1,475,069
2020	1,701,164
2021	(64,035)
2022	149,825
Thereafter	-
	<u>\$ 4,737,092</u>

The proportionate share of the Water Division is 8.91% of total System's pension liability. The proportionate share was based on the actual contributions for the year.

### NOTE 11 OTHER POST EMPLOYMENT BENEFITS (OPEB)

**Plan Description** – The City charges some early retirees not yet eligible for Medicare a health premium based on the claims experience of active employees and retirees rather than based on the claims experience of retirees only. This difference is a benefit to the retirees, since health claims costs generally increase with age. GAAP requires that the portion of age-adjusted expected retiree health claims costs that exceed the premium charged to retirees be recognized as a liability for accounting purposes. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and are subject to continual revision as results are compared to past expectation and new estimates are made about the future.

**Funding Policy** – The City uses pay as you go funding; contributions to a separate trust are not required.

**Annual OPEB Cost and Net OPEB Obligation** – The Present Value of Benefits (PVB) is the present value of projected benefits discounted at the valuation interest rate (3.50%).

## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

---

The Actuarial Accrued Liability (AAL) is the portion of the present value of benefits attributed to past service only. The portion attributed to future employee service is excluded. For inactive employees, the AAL is equal to the present value of benefits. For active employees, the actuarial present value of the projected benefits of each individual is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age). The portion attributed to service between entry age and the valuation date is the actuarial accrued liability.

The Normal Cost is that portion of the City provided benefit attributable to employee service in the current year.

The Annual Required Contribution (ARC) is the amount the City is required to report as an expense for the year in accordance with GAAP. The ARC is equal to the Normal Cost plus an amount to amortize the UAAL on a closed basis of 30 years, beginning January 1, 2007. The remaining amortization period for 2017 is 20 years.

The ARC represents an accounting expense, but the City is not required to contribute the ARC to a separate trust. If the City does not set aside funds equal to the ARC (less current year benefit payments) each year, then the ARC (less benefit payments) will accumulate as a liability or Net OPEB Obligation on the statements of net position. The City has a Net OPEB Obligation as of December 31, 2017 as the City has not set aside funds for OPEB.

**Excise Tax for High Cost or “Cadillac” Health Plans in 2020 and Beyond** – An excise tax for high cost health coverage or “Cadillac” health plans was included in the Affordable Care Act (ACA) passed into law in March 2010. The provision levies a 40% tax on the value of health plan costs that exceed certain thresholds for single coverage or family coverage. The Consolidated Appropriations Act (CAA), which was signed into law in December 2015, delays the tax for two years, until 2020.

GAAP indicates that the projection of benefits should include all benefits to be provided to retirees in accordance with the current “substantive” plan. The substantive plan refers to the plan terms as understood by the employer and plan members at the time of the valuation. The City believes that the current provisions of ACA should be reflected in the projection of benefits and therefore, the value of the excise tax is included in the valuation. It is assumed that there will be no changes to the current law and that there will be no changes in plan design to help mitigate the impact of the tax.

There is significant uncertainty with respect to the excise tax at this time. President Trump recently signed an executive order which gives instruction to the leaders of the new administration to unwind certain aspects of the ACA, especially those components deemed “burdensome.” It remains unclear how this would be implemented, especially due to the interconnected nature of the ACA. The City has continued to value the excise tax as it currently appears in the tax code, but will monitor this situation carefully going forward.

**Summary of Changes** – As of the January 1, 2017 valuation the total AAL was \$240,449,771, for the City, 12.5% higher than expected primarily due to changes demographic experience, medical cost expectations and medical trend assumptions, and demographic and economic assumptions.

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

The following table is a summary of valuation results with a comparison to the results from the last valuation.

	<u>January 1, 2015</u>	<u>January 1, 2017</u>
Total Membership:		
Active Employees	3,404	3,492
Terminated vested employees	442	476
Retired employees & dependents	<u>744</u>	<u>691</u>
Total	<u><u>4,590</u></u>	<u><u>4,659</u></u>
Annual Benefit Payments	\$ 8,963,089	\$ 9,010,942
Discount Rate	3.75%	3.50%
Present Value of Benefits (PVB)	\$ 262,184,195	\$ 289,047,229
Actuarial Accrued Liability (AAL)	\$ 208,814,312	\$ 240,449,771
Assets	-	-
Unfunded Actuarial Accrued Liability (UAAL)	<u><u>\$ 208,814,312</u></u>	<u><u>\$ 240,449,771</u></u>
Normal Cost	\$ 3,832,131	\$ 3,261,947
Annual Required Contribution (ARC)	\$ 16,966,964	\$ 19,529,549

The following table shows the total value of the benefits provided, the member paid premiums and the City paid benefits as of January 1, 2017.

<u>Value of Subsidy at 3.50% Interest Rate</u>	<u>Total Value of Benefits</u>	<u>Member Paid Premiums</u>	<u>City Paid Benefits</u>
Present Value of Benefits (PVB)	\$ 399,300,824	\$ 110,253,595	\$ 289,047,229
Actuarial Accrued Liability (AAL)	\$ 285,825,708	\$ 45,375,937	\$ 240,449,771
Normal Cost	\$ 7,595,595	\$ 4,443,955	\$ 3,151,640
Annual Benefit Payments	\$ 11,674,734	\$ 2,663,793	\$ 9,010,941

**TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)**

The following table shows the calculation of the Annual Required Contribution and Net OPEB Obligation for the City and for the Division as of December 31, 2017.

	City	Division
Determination of Annual Required Contribution:		
Normal Cost at Year-end	\$ 3,261,947	\$ 204,804
Amortization of UAAL	16,267,602	79,407
Annual Required Contribution (ARC)	<u>\$ 19,529,549</u>	<u>\$ 284,211</u>
Determination of Net OPEB Obligation:		
Annual Required Contribution (ARC)	\$ 19,529,549	\$ 284,211
Interest on prior year Net OPEB Obligation	2,895,939	118,463
Adjustments to ARC	<u>(4,743,612)</u>	<u>(165,382)</u>
Annual OPEB Cost	17,681,876	237,292
Actual benefits paid	<u>(9,010,941)</u>	<u>(79,449)</u>
Increase in Net OPEB Obligation	8,670,935	157,843
Net OPEB Obligation - beginning of year	<u>82,741,128</u>	<u>3,384,649</u>
Net OPEB Obligation - end of year	<u>\$ 91,412,063</u>	<u>\$ 3,542,492</u>

The Division has included the liability in the other long term liabilities on the Statement of Net Position.

**Funded Status and Funding Progress** – The following table shows the annual OPEB cost and net OPEB obligation for three years. This table is based upon a 3.50% interest rate.

Year Ended	Annual OPEB Cost		Benefits Paid		Net OPEB Obligation	
	City	Division	City	Division	City	Division
12/31/2015	\$ 15,954,387	\$ 357,394	\$ 8,963,089	\$ 115,102	\$ 73,129,502	\$ 3,150,430
12/31/2016	\$ 18,151,028	\$ 348,917	\$ 8,539,402	\$ 114,698	\$ 82,741,128	\$ 3,384,649
12/31/2017	\$ 17,681,876	\$ 237,292	\$ 9,010,941	\$ 79,449	\$ 91,412,063	\$ 3,542,492

**Actuarial Methods and Assumptions** – The actuarial cost method used for determining the benefit obligations is the Entry Age Normal Cost Method. Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of expected salary for each year of employment between entry age (defined as age at hire) and assumed exit (until maximum retirement age).

The portion of the actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the UAAL. In determining the ARC, the UAAL is amortized as a level percentage of expected payrolls for non-LEOFF 1 groups. For LEOFF 1, the UAAL is amortized as a level dollar amount. The amortization period was 30 years in 2007 and the remaining is now 20 years.



## TACOMA WATER NOTES TO FINANCIAL STATEMENTS (continued)

### Actuarial Methods and Significant Actuarial Assumptions:

Valuation Date:	January 1, 2017
Census Date:	January 1, 2017
Actuarial Cost Method:	Entry Age
Amortization Date:	Combination of level percentage and level dollar amount, see note above.
Remaining Amortization Period:	20 years, closed
Demographic Assumptions:	Demographic assumptions regarding retirements, disability, and turnover are based upon pension valuations for the various pension plans.

### Actuarial Assumptions:

Discount Rate:	3.50% for pay-as-you-go funding
Medical Cost Trend:	2017 9.10%
	2018 6.40%
	2019 5.80%
	2020 5.30%
	2030 5.40%
	2040 5.50%
	2050 5.20%

The trend for year 2017 reflects the amount by which 2018 medical costs are expected to exceed 2017 medical costs. The medical cost rate is assumed to continue grading downward until achieving the ultimate rate of 4.40% in 2073 and beyond. These trend rates assume that, over time, deductibles and out-of-pocket maximums will be periodically increased as medical trends increase. The trends above do not reflect increases in costs due to the excise tax.

Economic Assumptions - Discount Rate (Liabilities):	3.50%
-----------------------------------------------------	-------

Demographic Assumptions:	Eligibility: Disability - Five years of service are required for non-service connected disability.  Retirement - TERS members are eligible for retiree medical benefits after becoming eligible for service retirement pension benefits (either reduced or full pension benefits): <ul style="list-style-type: none"><li>• Age 55 with 10 years of service</li><li>• Age 40 with 20 years of service</li></ul>
--------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**NOTE 12 ACQUISITION OF WATER ASSOCIATION**

The Curran Road Mutual Water Association (Curran Road) provided services to more than 620 customers, in the vicinity of 128<sup>th</sup> Street East and Canyon Road East in Pierce County. Curran Road was a Tacoma Water wholesale customer and had received all of its water from Tacoma Water since the 1940's. As a requirement of the Washington State Department of Health, Curran Road was due to develop a new water system plan. In-lieu of developing a water system plan and securing financing to make system improvements, Curran Road requested Tacoma Water acquire the Curran Road service area and provide direct retail service to its members.

In 2017, Tacoma Water acquired Curran Road and over a period of 8-10 years will replace more than 6-miles of asbestos cement water main and complete other system improvements. The asbestos main is expected to be abandoned in place and no remediation liability is anticipated to be incurred at this time. The estimated cost of this water system improvement work is \$12 million, which will be paid for by those customers within the boundaries of the Curran Road water system through a customer surcharge over an estimated 33-year period, in accordance with the City Council's Expansion Policy.

The acquired balances of Curran Road's assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position as of the beginning of the period, were determined on the basis of carrying values reported in their financial statements as of December 31, 2016. Tacoma Water acquired \$196,000 in current assets and \$4,316 in capital assets.

**NOTE 13 COMMITMENTS AND CONTINGENCIES**

**Capital Improvements** – The financial requirement for Tacoma Water's 2017-2018 biennial Capital Improvement program is approximately \$48.1 million and Tacoma Water has substantial contractual commitments relating to the program. At December 31, 2017 the remaining financial requirement for Capital Improvement Programs relating to all prior biennia is approximately \$3.8 million.

**Muckleshoot Indian Tribe Settlement** – A mutually beneficial settlement agreement was reached with the Muckleshoot Indian Tribe in 1995. The settlement package has a cost of approximately \$30 million and includes five basic elements: 1) building a fish restoration facility and annual operation and maintenance of that facility, or in the alternative, providing \$12 million (indexed at 1995 dollars) into a fish restoration fund; 2) providing for enhanced flows in the Green River; 3) transferring certain lands; 4) establishing a trust fund payable over 40 years which is intended to provide for the general welfare, educational and other needs of the Tribe; and 5) limited access into the Green River Watershed. The settlement resolved past damage claims by the Tribe for Tacoma Water's historical operations on the river, gain the Tribe's support for the Second Supply Project and provide the basis for a long-term, cooperative working relationship on the Green River. Tacoma Water has been implementing this agreement.

**General Legal Matters** – The Water Division has received several other miscellaneous claims or litigation that either do not allege material amounts or that the Legal Department has determined do not pose a risk of liability to the Utility.

*This page has been left blank intentionally.*

# **REQUIRED SUPPLEMENTARY INFORMATION**

Proportionate Share of the Net Pension Liability Last 10 Years\*

	Fiscal Year Ended December 31st,		
	2017	2016	2015
Employer's proportion of the net pension liability (asset) as a percentage	8.91%	8.99%	9.17%
Employer's proportion share of net pension liability (asset)	\$8,278,522	\$7,788,151	(\$881,279)
Employer's covered payroll	\$20,220,795	\$21,148,347	\$20,099,527
Employer's proportionate share of net pension liability (asset) as a percentage of its covered employee payroll	40.94%	36.83%	-4.17%
Plan fiduciary net position as a percentage the total pension liability	93.91%	93.94%	100.71%

Schedule of Contributions Last 10 Fiscal Years\*

	Fiscal Year Ended December 31st,		
	2017	2016	2015
Contractually required employer contribution	\$2,150,205	\$2,124,252	\$2,086,719
Contributions in relation to the contractually required employer contribution	(2,150,205)	(2,124,252)	(2,086,719)
Employer contribution deficiency (excess)	-	-	-
Employer's covered employee payroll	\$20,914,658	\$20,220,795	\$21,148,347
Employer contribution as a percentage of covered-employee payroll	10.28%	10.51%	9.87%

\* The above schedules are intended to show information for 10 years, the additional years' information will be displayed as it becomes available.

*This page has been left blank intentionally.*

# **STATISTICAL DATA (Unaudited)**

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

TEN-YEAR FINANCIAL REVIEW

STATEMENTS OF NET POSITION	2017	2016	2015	2014
<b>ASSETS</b>				
Utility Plant - Net .....	\$873,518,773	\$879,547,650	\$884,721,107	\$872,083,357
Special Funds & Non-Util Prop ....	154,455,341	157,320,446	143,802,732	146,933,170
Current Assets .....	73,857,244	68,927,643	64,476,112	58,737,269
Other Assets .....	1,810,430	2,866,478	4,689,200	3,769,208
Total Assets .....	1,103,641,788	1,108,662,217	1,097,689,151	1,081,523,004
Deferred Outflows .....	10,034,467	10,623,174	4,002,699	1,587,851
TOTAL ASSETS AND DEFERRED OUTFLOWS .	1,113,676,255	1,119,285,391	1,101,691,850	1,083,110,855
 NET POSITION .....	 556,716,635	 549,652,226	 542,501,823	 516,673,245
<b>LIABILITIES AND EQUITY</b>				
Long-Term Debt .....	463,619,285	478,617,199	478,400,742	483,542,005
Current Liabilities .....	20,524,364	20,986,727	18,261,548	20,767,576
Long-Term Liabilities .....	35,456,782	33,932,418	26,021,937	26,552,582
Total Liabilities .....	519,600,431	533,536,344	522,684,227	530,862,163
Deferred Inflows .....	37,359,189	36,096,821	36,505,800	35,575,447
TOTAL NET POSITION, LIABILITIES, AND DEFERRED INFLOWS .....	\$1,113,676,255	\$1,119,285,391	\$1,101,691,850	\$1,083,110,855
 <b>STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION</b>				
<b>OPERATING REVENUES</b>				
Residential and Domestic .....	\$52,539,643	\$50,742,135	\$48,263,128	\$44,655,076
Commercial and Industrial .....	17,408,529	17,558,905	17,233,617	15,406,078
Special Rate-Simpson/Other .....	6,322,195	5,845,719	5,951,348	5,801,842
Municipal .....	-	-	-	-
Wholesale .....	3,069,448	3,971,839	5,192,149	3,718,315
Unbilled .....	660,078	(137,857)	318,945	121,346
Total Water Sales .....	79,999,893	77,980,741	76,959,187	69,702,657
Other Operating Revenues .....	14,644,528	14,820,869	21,179,637	28,617,297
Total Operating Revenues .....	94,644,421	92,801,610	98,138,824	98,319,954
 <b>OPERATING EXPENSES</b>				
Operation and Maintenance .....	49,051,816	46,894,363	41,804,233	37,993,563
Taxes .....	4,776,164	4,639,031	4,681,114	3,779,373
Depreciation .....	24,038,103	23,822,527	17,102,664	16,783,698
Total Operating Expenses .....	77,866,083	75,355,921	63,588,011	58,556,634
NET OPERATING INCOME (LOSS) .....	16,778,338	17,445,689	34,550,813	39,763,320
<b>NON-OPERATING REVENUES (EXPENSES)</b>				
Other Income .....	1,216,295	(221,125)	(30,042)	537,052
Interest Income .....	1,762,813	1,826,299	1,112,850	1,718,226
Gain from Disposition of Property .....	-	-	-	-
Interest Charges (Net) .....	(18,321,085)	(19,000,536)	(16,677,645)	(11,911,850)
Net Income (Loss) Before Contributions & Transfers .....	1,436,361	50,327	18,955,976	30,106,748
Total Capital Contributions .....	9,138,434	10,274,030	9,052,674	8,670,639
Grants & Federal BAB Subsidies .....	3,582,475	3,579,107	3,609,706	3,959,446
Transfers Out .....	(7,092,861)	(6,753,061)	(6,873,467)	(6,352,561)
CHANGE IN NET POSITION .....	\$7,064,409	\$7,150,403	\$24,744,889	\$36,384,272

In accordance with Governmental Accounting Standards Board Statement No. 65 both 2012 and 2011 were restated for comparative purposes. Years prior to 2011 are shown as originally reported.



2013	2012	2011	2010	2009	2008
\$813,050,518	\$722,852,270	\$661,153,297	\$636,592,771	\$604,657,775	\$590,593,258
157,311,979	161,863,075	214,619,106	240,132,895	133,949,294	80,858,401
63,568,675	56,407,560	31,403,521	30,200,303	35,753,843	22,151,467
4,679,599	5,300,185	4,664,090	4,654,608	3,654,494	3,319,156
1,038,610,771	946,423,090	911,840,014	911,580,577	778,015,406	696,922,282
1,813,858	1,764,332	2,056,555	-	-	-
1,040,424,629	948,187,422	913,896,569	911,580,577	778,015,406	696,922,282
480,288,973	449,858,136	425,932,810	417,695,083	412,592,671	404,010,304
455,876,975	401,465,338	419,800,757	421,228,553	292,165,406	218,869,015
42,478,805	35,106,590	18,201,697	20,548,451	15,167,938	16,288,305
26,204,429	26,181,911	19,385,858	52,108,490	58,089,391	57,754,658
524,560,209	462,753,839	457,388,312	493,885,494	365,422,735	292,911,978
35,575,447	35,575,447	30,575,447	-	-	-
\$1,040,424,629	\$948,187,422	\$913,896,569	\$911,580,577	\$778,015,406	\$696,922,282
\$40,928,355	\$38,737,505	\$36,730,275	\$35,503,069	\$36,695,919	\$34,651,756
13,507,899	12,478,932	11,868,976	11,703,099	11,467,636	10,600,262
5,242,359	5,031,760	4,774,237	3,798,922	4,153,327	4,371,527
445,844	383,385	400,322	364,357	380,267	349,722
3,519,409	2,090,430	1,625,163	1,530,116	1,776,686	1,251,815
468,030	416,986	478,594	(648,438)	187,966	417,145
64,111,896	59,138,998	55,877,567	52,251,125	54,661,801	51,642,227
32,007,524	21,541,733	9,526,467	10,735,630	9,331,955	5,382,313
96,119,420	80,680,731	65,404,034	62,986,755	63,993,756	57,024,540
35,906,356	32,602,452	32,821,611	34,453,742	34,055,463	33,387,663
3,918,944	3,485,243	3,106,516	3,142,772	3,093,311	2,881,877
16,072,243	15,262,686	14,389,681	14,474,964	13,845,799	13,016,544
55,897,543	51,350,381	50,317,808	52,071,478	50,994,573	49,286,084
40,221,877	29,330,350	15,086,226	10,915,277	12,999,183	7,738,456
(1,246,053)	288,182	(12,371)	33,795	497,331	61,265
807,466	2,320,753	3,141,374	2,370,993	1,955,385	3,730,407
-	-	-	-	26,100	-
(14,141,036)	(14,462,441)	(14,867,263)	(15,175,660)	(9,076,156)	(8,406,264)
25,642,254	17,476,844	3,347,966	(1,855,595)	6,401,843	3,123,864
7,175,575	7,834,345	9,250,677	9,713,596	7,120,993	14,137,605
3,535,426	3,840,767	4,006,209	2,355,132	244,683	-
(5,922,418)	(5,226,630)	(4,960,736)	(5,110,721)	(5,185,152)	(5,014,482)
\$30,430,837	\$23,925,326	\$11,644,116	\$5,102,412	\$8,582,367	\$12,246,987

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
REGIONAL WATER SUPPLY SYSTEM

TEN-YEAR FINANCIAL REVIEW

<b>STATEMENTS OF NET POSITION</b>	2017	2016	2015	2014
<b>ASSETS</b>				
Utility Plant - Net .....	\$279,190,310	\$287,187,547	\$295,780,351	\$293,110,553
Current Assets .....	10,442,765	10,395,435	9,274,080	11,321,557
Total Assets .....	289,633,075	297,582,982	305,054,431	304,432,110
Deferred Outflows .....	240,210	256,313	272,417	288,520
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS .</b>	<b>289,873,285</b>	<b>297,839,295</b>	<b>305,326,848</b>	<b>304,720,630</b>
NET POSITION .....	174,701,516	180,852,158	186,712,448	183,898,541
<b>LIABILITIES AND EQUITY</b>				
Long-Term Debt .....	112,594,314	114,364,416	116,113,730	117,798,157
Current Liabilities .....	1,564,360	1,601,549	1,496,773	1,993,880
Total Liabilities .....	114,158,674	115,965,965	117,610,503	119,792,037
Deferred Inflows .....	1,013,095	1,021,172	1,003,897	1,030,052
<b>TOTAL NET POSITION, LIABILITIES, AND DEFERRED INFLOWS .....</b>	<b>289,873,285</b>	<b>297,839,295</b>	<b>305,326,848</b>	<b>304,720,630</b>
<b>STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION</b>				
<b>OPERATING REVENUES</b>				
CRO - Debt Service .....	\$5,554,208	\$5,582,030	\$6,047,314	\$6,008,599
CRO - O&M .....	3,858,622	3,858,714	2,840,435	2,706,023
CRO - Capital .....	202,255	483,498	7,621,901	15,132,508
Other Operating Revenue .....	-	-	1,675	-
Total Operating Revenues .....	9,615,085	9,924,242	16,511,325	23,847,130
<b>OPERATING EXPENSES</b>				
Operation and Maintenance .....	3,881,686	3,871,737	2,864,326	2,735,246
Depreciation .....	8,266,685	8,263,267	4,582,300	4,542,912
Total Operating Expenses .....	12,148,371	12,135,004	7,446,626	7,278,158
<b>NET OPERATING INCOME (LOSS) .....</b>	<b>(2,533,286)</b>	<b>(2,210,762)</b>	<b>9,064,699</b>	<b>16,568,972</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>				
Other Income .....	-	-	(120,564)	(18,732)
Interest Income .....	91,554	87,696	64,497	114,387
Interest Charges (Net) .....	(4,697,999)	(4,715,565)	(4,072,780)	(880,966)
<b>Net Income (Loss) Before Contributions &amp; Transfers .....</b>	<b>(7,139,731)</b>	<b>(6,838,631)</b>	<b>4,935,852</b>	<b>15,783,661</b>
Total Capital Contributions .....	179,156	456,685	(2,924,135)	13,024,297
Grants & Federal BAB Subsidies .....	809,933	808,775	802,190	805,374
Transfers Out .....	-	(287,119)	-	-
<b>CHANGE IN NET POSITION .....</b>	<b>(\$6,150,642)</b>	<b>(\$5,860,290)</b>	<b>\$2,813,907</b>	<b>\$29,613,332</b>

In accordance with Governmental Accounting Standards Board Statement No. 65 both 2012 and 2011 were restated for comparative purposes. Years prior to 2011 are shown as originally reported.

2013	2012	2011	2010	2009	2008
\$264,883,717	\$223,896,711	\$203,938,358	\$207,242,527	\$206,708,069	\$231,099,649
20,473,681	41,256,611	55,640,447	59,811,400	15,845,604	9,519,659
285,357,398	265,153,322	259,578,805	267,053,927	222,553,673	240,619,308
304,624	-	-	1,194,533	807,387	856,484
285,662,022	265,153,322	259,578,805	268,248,460	223,361,060	241,475,792
154,285,209	136,200,206	132,830,089	138,246,799	142,801,029	151,581,061
120,006,348	122,882,652	124,045,739	124,890,764	77,694,584	88,122,323
10,436,851	5,253,742	1,931,325	5,110,897	2,865,447	1,772,408
130,443,199	128,136,394	125,977,064	130,001,661	80,560,031	89,894,731
933,614	816,722	771,652	-	-	-
285,662,022	265,153,322	259,578,805	268,248,460	223,361,060	241,475,792
\$6,208,432	\$6,272,476	\$6,239,797	\$5,119,047	\$4,293,912	\$2,016,804
2,740,645	2,478,238	1,778,186	2,732,956	2,517,129	6,074,980
18,535,695	5,665,557	274,081	1,301,346	(339,930)	-
-	-	-	-	-	-
27,484,772	14,416,271	8,292,064	9,153,349	6,471,111	8,091,784
2,895,385	2,510,085	2,485,977	2,458,379	2,629,850	2,300,026
4,505,158	4,495,971	4,482,820	4,426,113	4,792,037	4,803,549
7,400,543	7,006,056	6,968,797	6,884,492	7,421,887	7,103,575
20,084,229	7,410,215	1,323,267	2,268,857	(950,776)	988,209
(373,899)	-	-	-	-	14,360
51,743	407,622	396,391	861,775	184,332	293,709
(2,665,310)	(4,901,784)	(7,574,948)	(4,833,300)	(3,918,240)	(3,411,937)
17,096,763	2,916,053	(5,855,290)	(1,702,668)	(4,684,684)	(2,115,659)
148,865	(414,376)	(508,791)	(4,593,787)	8,085,876	1,287,306
799,296	868,328	868,328	306,327	-	-
40,079	112	79,043	1,435,898	(12,181,224)	3,060,607
<u>\$18,085,003</u>	<u>\$3,370,117</u>	<u>(\$5,416,710)</u>	<u>(\$4,554,230)</u>	<u>(\$8,780,032)</u>	<u>\$2,232,254</u>

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

STATEMENTS OF NET POSITION

	WATER		RWSS		TACOMA WATER STATEMENTS	
	W/O RWSS			ADJUSTMENTS		
<b>ASSETS</b>						
<b>UTILITY PLANT</b>						
In Service, at Original Cost .....	\$ 754,566,673	\$	343,869,539	\$ -	\$	1,098,436,212
Less - Accumulated Depreciation .....	(171,081,256)		(65,738,167)	-		(236,819,423)
Total .....	583,485,417		278,131,372	-		861,616,789
Construction Work In Progress .....	10,843,046		1,058,938	-		11,901,984
Net Utility Plant .....	594,328,463		279,190,310	-		873,518,773
<b>NET UTILITY PROPERTY</b> .....	492,963	-	-	-	-	492,963
<b>SPECIAL FUNDS</b>						
Construction Funds .....	32,591,351	-	-	-	-	32,591,351
Debt Service Funds .....	4,065,742		300,423	-		4,366,165
Bond Reserve Funds .....	13,575,539		8,394,310	-		21,969,849
System Development Charge Fund .....	61,645,713		-	-		61,645,713
Other Cash & Equity in Pooled Investments .....	32,371,772		-	1,017,528		33,389,300
Total Special Funds .....	144,250,117		8,694,733	1,017,528		153,962,378
<b>CURRENT ASSETS</b>						
Operating Funds Cash & Equity in						
Pooled Investments .....	59,076,540		1,017,528	(1,017,528)		59,076,540
Accounts Receivable .....	4,721,094		591,206	-		5,312,300
(Net of Allowance for Doubtful Accounts of \$526,979 in 2017)						
BABs Interest Subsidies Receivable .....	231,355		67,585	-		298,940
Accrued Unbilled Revenues .....	5,457,221		-	-		5,457,221
Materials and Supplies .....	2,403,305		-	-		2,403,305
Interfund Receivable .....	66,921		2,341	-		69,262
Prepayments .....	1,170,304		69,372	-		1,239,676
Total .....	73,126,740		1,748,032	(1,017,528)		73,857,244
<b>OTHER ASSETS</b>						
Regulatory Asset - Public Fire Protection Fees .....	456,635		-	-		456,635
Regulatory Asset - Surcharges .....	1,353,795		-	-		1,353,795
Total Other Assets .....	1,810,430		-	-		1,810,430
<b>DEFERRED OUTFLOWS OF RESOURCES</b>						
Unamortized Losses on Refunding Bonds .....	1,123,218		240,210	-		1,363,428
Pension Contributions .....	8,671,039		-	-		8,671,039
Total Deferred Outflows .....	9,794,257		240,210	-		10,034,467
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS</b> .....	\$ 823,802,970	\$	289,873,285	\$ -	\$	1,113,676,255

	WATER W/O RWSS	RWSS	ADJUSTMENTS	WATER STATEMENTS
<b>NET ASSETS AND LIABILITIES</b>				
<b>NET ASSETS</b>				
Invested in Capital Assets, Net of Related Debt . . . .	\$ 271,819,740	\$ 174,175,516	\$ -	\$ 445,995,256
Restricted for:				
Water Capital and System Development Charge . . . .	50,149,083	-	-	50,149,083
Debt Service Funds . . . . .	2,654,379	(148,101)	-	2,506,278
Unrestricted . . . . .	57,391,917	674,101	-	58,066,018
Total Net Position . . . . .	382,015,119	174,701,516	-	556,716,635
<b>LONG-TERM DEBT</b>				
Revenue Bonds . . . . .	265,400,935	112,594,314	-	377,995,249
Public Works Trust Fund Loans . . . . .	20,011,236	-	-	20,011,236
Drinking Water State Revolving Fund Loan . . . . .	65,612,800	-	-	65,612,800
Total Long-Term Debt	351,024,971	112,594,314	-	463,619,285
<b>CURRENT LIABILITIES</b>				
Current Maturities of Long-Term Debt . . . . .	12,323,017	1,055,000	-	13,378,017
Current Maturities of Long-Term Liabilities . . . . .	181,355	-	-	181,355
Accrued Taxes . . . . .	1,556,338	-	-	1,556,338
Accrued Expenses and Contracts Payable . . . . .	1,375,280	(6,046)	-	1,369,234
Salaries, Wages and Fringe Benefits Payable . . . . .	725,775	-	-	725,775
Interest Payable . . . . .	1,411,363	448,524	-	1,859,887
Customers' Deposits . . . . .	356,929	-	-	356,929
Interfund Payables . . . . .	1,029,947	66,882	-	1,096,829
Total Current Liabilities . . . . .	18,960,004	1,564,360	-	20,524,364
<b>LONG-TERM LIABILITIES</b>				
Muckleshoot Agreements . . . . .	6,762,451	-	-	6,762,451
Customer Advances for Construction . . . . .	5,905,910	-	-	5,905,910
Unearned Revenue . . . . .	6,596,724	1,013,095	-	7,609,819
Long-Term Accrued Compensated Absences . . . . .	2,068,503	-	-	2,068,503
Pension Liability . . . . .	8,278,522	-	-	8,278,522
Other Long-Term Liabilities . . . . .	4,831,577	-	-	4,831,577
Total Long-Term Liabilities . . . . .	34,443,687	1,013,095	-	35,456,782
<b>DEFERRED INFLOWS OF RESOURCES</b>				
Rate Stabilization . . . . .	35,575,447	-	-	35,575,447
Pension Contribution . . . . .	1,783,742	-	-	1,783,742
Total Inflows of Resources . . . . .	37,359,189	-	-	37,359,189
<b>TOTAL NET POSITION, LIABILITIES, AND DEFERRED INFLOWS</b>	<b>\$ 823,802,970</b>	<b>\$ 289,873,285</b>	<b>\$ -</b>	<b>\$ 1,113,676,255</b>

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	WATER W/O RWSS	RWSS	ADJUSTMENTS	TACOMA WATER STATEMENTS
<b>OPERATING REVENUES</b>				
Sale of Water	\$ 79,999,893	\$ -	\$ -	\$ 79,999,893
Other Operating Revenues	10,059,774	-	-	10,059,774
Contract Resource Obligation Revenues	-	9,615,085	(5,030,331)	4,584,754
Total Operating Revenues	90,059,667	9,615,085	(5,030,331)	94,644,421
<b>OPERATING EXPENSES</b>				
Operations	17,704,426	176,750	-	17,881,176
Production	11,309,215	3,492,286	-	14,801,501
Administrative and General	21,186,820	212,650	(5,030,331)	16,369,139
Depreciation	15,771,418	8,266,685	-	24,038,103
Taxes	4,776,164	-	-	4,776,164
Total Operating Expenses	70,748,043	12,148,371	(5,030,331)	77,866,083
Net Operating Income	19,311,624	(2,533,286)	-	16,778,338
<b>NON-OPERATING REVENUES (EXPENSES)</b>				
Interest Income	1,671,259	91,554	-	1,762,813
Other	1,216,295	-	-	1,216,295
Interest on Long-Term Debt	(14,586,802)	(5,428,377)	-	(20,015,179)
Amortization of Premium and Loss on Refunding	652,255	698,999	-	1,354,254
Interest Charged to Construction	308,461	31,379	-	339,840
Total Non-Operating Expenses	(10,735,532)	(4,606,445)	-	(15,341,977)
Net Income Before Capital Contributions and Transfers	8,576,092	(7,139,731)	-	1,436,361
Capital Contributions				
Cash	5,331,596	179,156	-	5,510,752
Donated Fixed Assets	3,627,682	-	-	3,627,682
Federal BABs Subsidies	2,772,542	809,933	-	3,582,475
Transfers				
City of Tacoma Gross Earnings Tax	(7,143,861)	-	-	(7,143,861)
Transfer to/from Other Funds	51,000	-	-	51,000
<b>CHANGE IN NET POSITION</b>	13,215,051	(6,150,642)	-	7,064,409
<b>TOTAL NET POSITION - BEGINNING OF YEAR</b>	368,800,068	180,852,158	-	549,652,226
<b>TOTAL NET POSITION - END OF YEAR</b>	\$ 382,015,119	\$ 174,701,516	\$ -	\$ 556,716,635

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

BOND DEBT SERVICE REQUIREMENTS  
DECEMBER 31, 2017

YEAR	WATER W/O RWSS		RWSS		TOTAL
	PRINCIPAL	INTEREST	PRINCIPAL	INTEREST	
2018	5,395,000	13,308,633	1,055,000	5,382,286	25,140,919
2019	5,620,000	13,092,833	1,990,000	5,335,336	26,038,169
2020	5,850,000	12,852,833	2,100,000	5,241,836	26,044,669
2021	6,150,000	12,560,333	2,205,000	5,143,036	26,058,369
2022	6,410,000	12,297,633	2,315,000	5,035,935	26,058,568
2023	6,240,000	11,977,133	2,455,000	4,923,486	25,595,619
2024	4,300,000	11,665,133	4,930,000	4,804,186	25,699,319
2025	4,465,000	11,460,042	5,190,000	4,561,236	25,676,278
2026	4,930,000	11,244,560	5,420,000	4,300,364	25,894,924
2027	5,085,000	11,003,926	5,700,000	4,027,936	25,816,862
2028	5,265,000	10,730,811	5,970,000	3,741,451	25,707,262
2029	5,445,000	10,448,028	6,300,000	3,441,430	25,634,458
2030	5,640,000	10,155,577	6,595,000	3,124,854	25,515,431
2031	5,835,000	9,852,652	6,880,000	2,855,021	25,422,673
2032	6,050,000	9,524,667	6,660,000	2,572,446	24,807,113
2033	11,915,000	9,184,597	4,495,000	2,298,427	27,893,024
2034	12,360,000	8,502,115	4,655,000	2,045,763	27,562,878
2035	12,820,000	7,794,144	4,830,000	1,784,105	27,228,249
2036	13,295,000	7,059,824	5,005,000	1,512,611	26,872,435
2037	13,790,000	6,298,290	5,185,000	1,231,280	26,504,570
2038	14,305,000	5,508,406	5,375,000	939,831	26,128,237
2039	14,835,000	4,689,020	5,570,000	637,703	25,731,723
2040	15,390,000	3,839,272	5,775,000	324,613	25,328,885
2041	23,820,000	2,974,200	-	-	26,794,200
2042	24,770,000	2,021,400	-	-	26,791,400
2043	25,765,000	1,030,600	-	-	26,795,600
	<u>\$265,745,000</u>	<u>\$231,076,662</u>	<u>\$106,655,000</u>	<u>\$75,265,172</u>	<u>\$678,741,834</u>

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER  
without RWSS  
FUNDS AVAILABLE FOR DEBT SERVICE

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Total Income	\$98,305,474	\$94,688,383	\$92,203,086	\$86,134,608	\$77,677,321
Less: Operating Exp	<u>54,976,625</u>	<u>52,762,243</u>	<u>48,438,968</u>	<u>43,722,021</u>	<u>41,649,837</u>
Income Available for Debt Service	<u>\$43,328,849</u>	<u>\$41,926,140</u>	<u>\$43,764,118</u>	<u>\$42,412,587</u>	<u>\$36,027,484</u>
Bond Redemption	5,216,251	5,140,416	4,873,754	5,551,250	6,957,496
Bond Interest	<u>13,447,439</u>	<u>13,156,254</u>	<u>13,913,407</u>	<u>14,303,864</u>	<u>14,032,328</u>
Debt Service Payable	<u>\$18,663,690</u>	<u>\$18,296,670</u>	<u>\$18,787,161</u>	<u>\$19,855,114</u>	<u>\$20,989,824</u>
Times Debt Service Covered	2.32	2.29	2.33	2.14	1.72



CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

SUMMARY OF WATER SALES - 2017

	<b>AVERAGE MONTHS BILLED</b>	<b>CONSUMPTION (CCF)</b>	<b>REVENUE</b>	<b>% of TOTAL REVENUE</b>	<b>MGD</b>	<b>% of TOTAL MGD</b>
<b>RESIDENTIAL AND DOMESTIC SERVICE</b>						
<b>Inside City</b>						
<i>Single and Multiple House</i>	55,629	4,579,323	\$ 22,531,860	28.3%	9.39	18.9%
<i>Multiple Unit Dwellings</i>	3,230	1,631,136	\$ 5,616,852	7.0%	3.34	6.8%
<i>Parks &amp; Irrigation Services</i>	183	102,780	\$ 427,550	0.5%	0.21	0.4%
<i>Private Fire Services</i>	104	869	\$ 81,344	0.1%	0.00	0.0%
	<b>59,146</b>	<b>6,314,108</b>	<b>\$ 28,657,606</b>	<b>35.9%</b>	<b>12.94</b>	<b>26.1%</b>
<b>Outside City</b>						
<i>Single and Multiple Houses</i>	34,003	3,556,737	\$ 18,864,255	23.7%	7.29	14.8%
<i>Multiple Unit Dwellings</i>	1,845	1,024,559	\$ 4,350,874	5.4%	2.10	4.3%
<i>Parks &amp; Irrigation Services</i>	237	134,960	\$ 631,483	0.8%	0.28	0.6%
<i>Private Fire Services</i>	75	4	\$ 35,425	0.0%	0.00	0.0%
	<b>36,160</b>	<b>4,716,260</b>	<b>\$ 23,882,037</b>	<b>29.9%</b>	<b>9.67</b>	<b>19.7%</b>
<b>COMMERCIAL AND INDUSTRIAL SERVICE</b>						
<b>Inside City</b>						
<i>Large Volume Service</i>	2	303,552	\$ 517,439	0.6%	0.62	1.3%
<i>General Service</i>	3,799	2,323,594	\$ 8,074,712	10.1%	4.76	9.6%
<i>Parks &amp; Irrigation Services</i>	372	362,735	\$ 1,527,724	1.9%	0.74	1.5%
<i>Private Fire Services</i>	1,062	6,061	\$ 2,472,861	3.1%	0.01	0.0%
	<b>5,235</b>	<b>2,995,942</b>	<b>\$ 12,592,736</b>	<b>15.7%</b>	<b>6.13</b>	<b>12.4%</b>
<b>Outside City</b>						
<i>Large Volume Service</i>	4	623,904	\$ 1,267,171	1.6%	1.28	2.6%
<i>General Service</i>	994	465,831	\$ 2,021,801	2.5%	0.96	1.9%
<i>Parks &amp; Irrigation Services</i>	95	123,371	\$ 574,501	0.7%	0.25	0.5%
<i>Private Fire Services</i>	219	864	\$ 952,320	1.2%	0.00	0.0%
	<b>1,312</b>	<b>1,213,970</b>	<b>\$ 4,815,793</b>	<b>6.0%</b>	<b>2.49</b>	<b>5.0%</b>
<b>WESTROCK</b>	<b>1</b>	<b>7,606,966</b>	<b>\$ 6,322,195</b>	<b>7.9%</b>	<b>15.59</b>	<b>31.6%</b>
<b>WHOLESALE</b>	<b>17</b>	<b>1,250,618</b>	<b>\$ 3,069,448</b>	<b>3.8%</b>	<b>2.56</b>	<b>5.2%</b>
<i>Unbilled Revenue</i>			\$ 660,078	0.8%		
<b>TOTAL WATER SALES</b>	<b>101,871</b>	<b>24,097,864</b>	<b>\$ 79,999,893</b>	<b>100.0%</b>	<b>49.38</b>	<b>100.0%</b>

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

STATISTICS  
AS OF DECEMBER 31, 2017

Tacoma Water System:		
Average daily delivery exclusive of pulp mill		37.80 MG
Average daily delivery of pulp mill		15.68 MG
Total average daily delivery		53.48 MG
Maximum daily production	8/2/2017	90.99 MG
Minimum daily production	1/25/2017	29.42 MG
Total water produced in 2017*		19,512 MG
Regional Water Supply System (RWSS):		
Total average daily delivery		13.98 MG
Average daily consumption per single family residential service (Inside City)		168.7 GPD
Miles of transmission and wells supply mains - 28" to 96" diameter (includes North Fork wells system)		150 mi
Miles of distribution mains - 2" to 24" in diameter		1,259.80 mi
Fire Hydrants (Inside)		6,085
Fire Hydrants (Outside)		4,770

The primary source of Tacoma's water supply is the Green River. Additionally the North Fork well field provides blending options during periods of excessive river turbidity. The Green River source consists of a 73 million gallons per day (MGD) water right. Tacoma is also partner in the Regional Water Supply System (RWSS) and holds a 27 MGD average share of that 64.6 MGD interruptible, junior water right on the Green River. Tacoma also has ground water rights totaling 87 MGD with an installed pumping capacity of 55 MGD.

Tacoma's water supply is robust and of very high quality, benefiting from decades of source protection and substantial investment in treatment. City of Tacoma business and residents continued to receive extraordinary service reliability while meeting or exceeding all regulatory requirements of the United States Environmental Protection Agency and the Washington Department of Health.

Storage facilities are provided at 15 locations. These facilities consist of 10 concrete tanks and 12 steel standpipes. The combined storage capacity is equal to approximately 140.7 million gallons. Of this storage capacity 67.6 million gallons are located at the McMillin Reservoir approximately 14 miles southeast of Tacoma.

*\*Includes losses and water for self-consumption excludes RWSS  
MG equals million gallons  
GPD equals gallons per day  
mi equals miles*

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

TAXES AND EMPLOYEE WELFARE CONTRIBUTIONS  
FOR THE YEAR 2017

**FEDERAL**

Social Security (FICA) .....		\$1,590,162
------------------------------	--	-------------

**STATE OF WASHINGTON**

Retail Sales Tax .....	560,978	
Utilities and Business Activities Tax .....	4,115,951	
Total .....		4,676,929

**COUNTY**

Real Property .....	46,901	
Total .....		46,901

**MUNICIPALITIES**

City of Tacoma Gross Earnings Tax .....	7,143,861	
City of Fircrest Administrative Fee .....	6,586	
City of Lakewood Administrative Fee .....	5,472	
City of Puyallup Administrative Fee .....	19,414	
City of University Place Administrative Fee ....	615,540	
		7,790,873

TOTAL TAXES .....		\$14,104,865
-------------------	--	--------------

Taxes as a % of Non-CRO Revenues of \$90,059,667 ..		15.66%
-----------------------------------------------------	--	--------

**EMPLOYEE WELFARE CONTRIBUTIONS**

Industrial Insurance and Medical Aid .....	\$526,549	
Pensions .....	\$2,107,449	
Medical Insurance .....	\$3,928,992	
Dental Insurance .....	\$346,026	

TOTAL EMPLOYEE WELFARE CONTRIBUTIONS .....		\$6,909,016
--------------------------------------------	--	-------------

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

2017 WATER RATES

		READY TO SERVE CHARGE PER MONTH	
		INSIDE TACOMA	OUTSIDE TACOMA
METER SIZE			
5/8	inch .....	\$21.20	\$25.44
3/4	inch .....	\$31.80	\$38.16
1	inch .....	\$53.00	\$63.60
1-1/2	inch .....	\$106.00	\$127.20
2	inch .....	\$169.60	\$203.52
3	inch .....	\$318.00	\$381.60
4	inch .....	\$530.00	\$636.00
6	inch .....	\$1,060.00	\$1,272.00
8	inch .....	\$1,696.00	\$2,035.20
10	inch .....	\$2,438.00	\$2,925.60
12	inch .....	\$3,577.50	\$4,293.00

		CHARGE FOR WATER USED PER MONTH PER 100 CUBIC FEET	
		INSIDE TACOMA	OUTSIDE TACOMA
<u>Residential Service</u>			
Each 100 cubic ft. of water consumption during the winter months of October through May .....		\$1.825	\$2.190
First 500 cubic ft. of water consumption per month during the summer months of June through September		\$1.825	\$2.190
Each 100 cubic ft. of water consumption over 500 cubic ft. during the summer months of June through September .....		\$2.281	\$2.738
<u>Commercial and Industrial</u>			
General Service .....		\$2.032	\$2.438
Large Volume Service (over 65,000 cubic feet annually) .....		\$1.666	\$1.999
<u>Parks and Irrigation Service</u>			
Each 100 cubic feet of water consumption .....		\$3.115	\$3.738

City of Tacoma water services are 100% metered.

Where service conditions are considered extraordinary, the Water Division may, with City Council approval, enter into contracts for periods up to 20 years.

Water rates were established by Ordinance No. 28423 and were effective April 1, 2017.

Residential service rate for outside Tacoma does not include Fircrest, Puyallup, University Place, and Lakewood.

CITY OF TACOMA, WASHINGTON  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

2017 FIRE PROTECTION RATES

RATES FOR PRIVATE FIRE PROTECTION SERVICE ON A SEPARATE METER INSIDE THE CITY OF TACOMA ARE AS FOLLOWS:

METER SIZE	<u>MONTHLY CHARGE</u>	<u>WATER INCLUDED FOR MONTHLY LEAKAGE AND TESTING PURPOSES (100 Cubic Feet)</u>
2 inch .....	\$25.89	2.99
3 inch .....	\$37.70	2.99
4 inch .....	\$62.98	2.99
6 inch .....	\$141.27	2.99
8 inch .....	\$251.49	2.99
10 inch .....	\$393.37	2.99
12 inch .....	\$629.19	2.99

No charge is made for water used through a fire service in extinguishing fires of incendiary or accidental origin if the customer, at the location where the use occurs, gives written notice to the Division within ten days from the time of such fire. Use of water through a fire service for purposes other than extinguishing fires of incendiary or accidental origin is charged as follows:

MONTHLY CHARGE

12 times the monthly service charge (minimum).

CONSUMPTION

Rates per 100 cubic feet per month ..... \$3.960

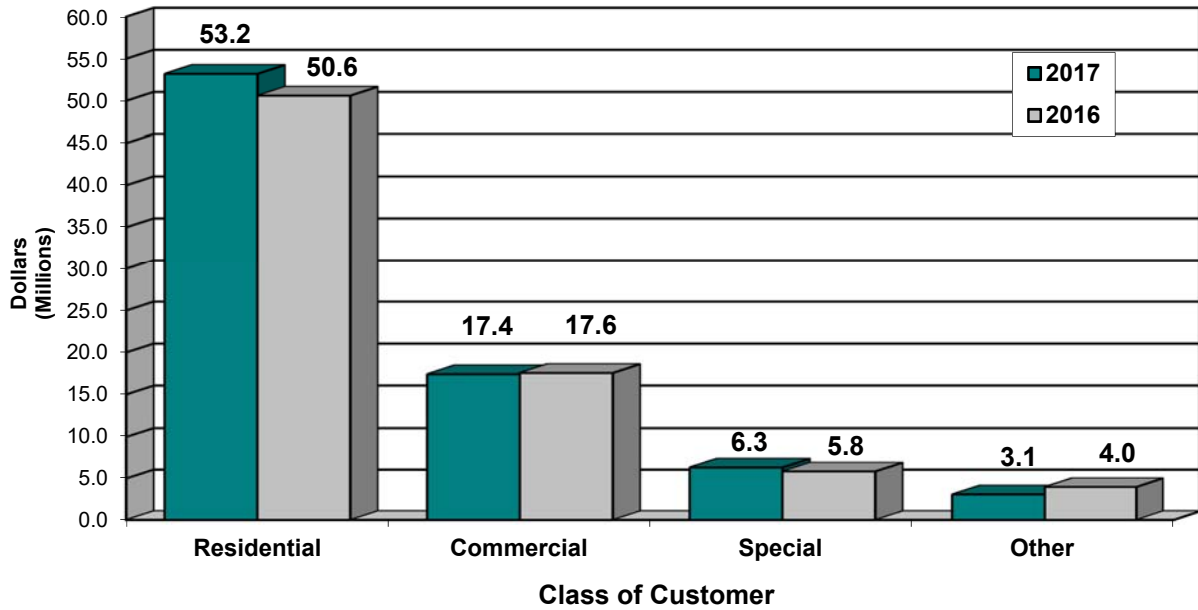
The above rates for fire service shall apply where City water is used for all purposes on such premises exclusive of that amount allowed for testing and leakage.

Costs associated with fire hydrant services are currently recovered from customers in two different ways, depending on their location in the service area. Customers outside the City of Tacoma with residential and commercial accounts pay a flat monthly franchise "Franchise Hydrant Service Fee" as shown below:

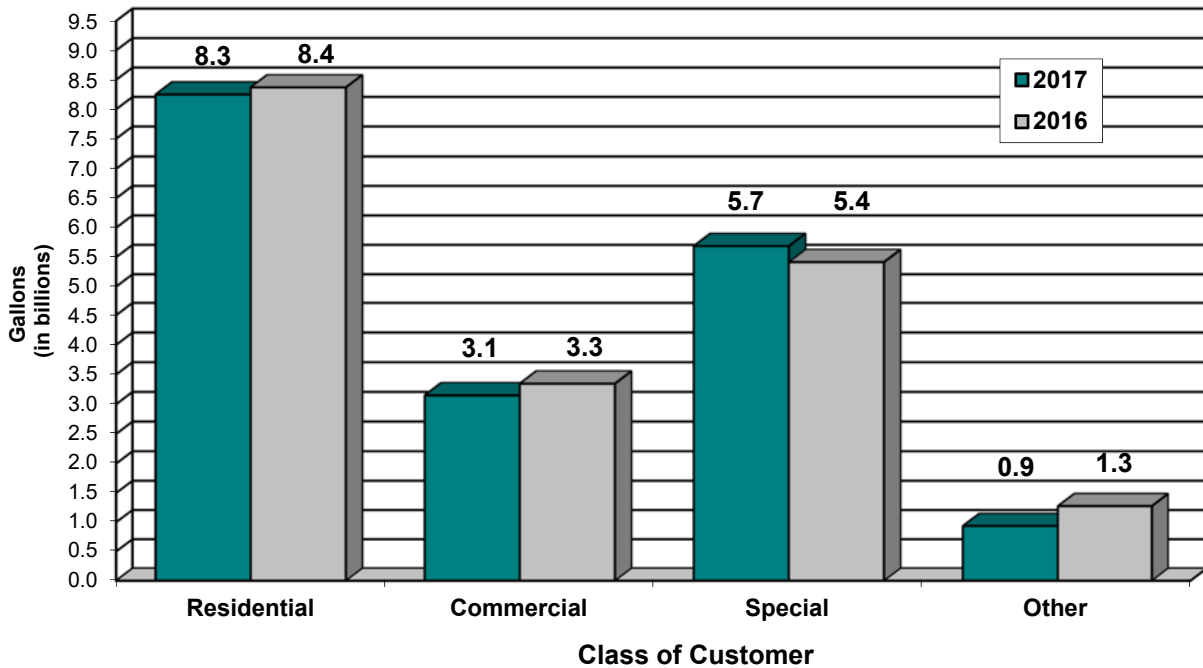
Outside City, other contract.....	\$4.752
Fircrest Franchise.....	\$4.752
Lakewood, Puyallup, and University Place Franchises.	\$4.752

The Fire Protection Rates were established by Ordinance No. 28423 and were effective April 1, 2017.

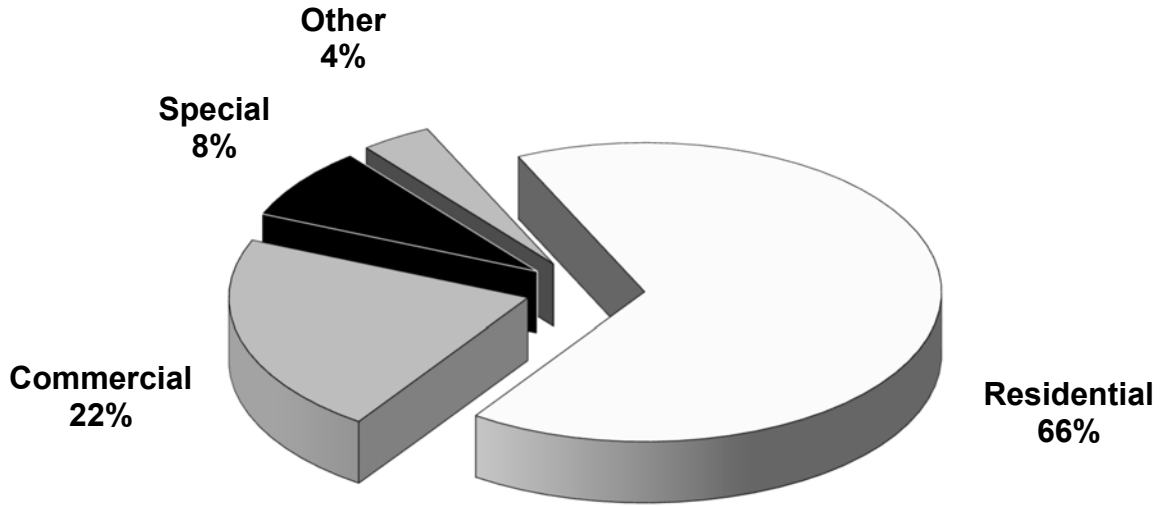
**WATER SALES**  
Year to Date - December 2017 & 2016



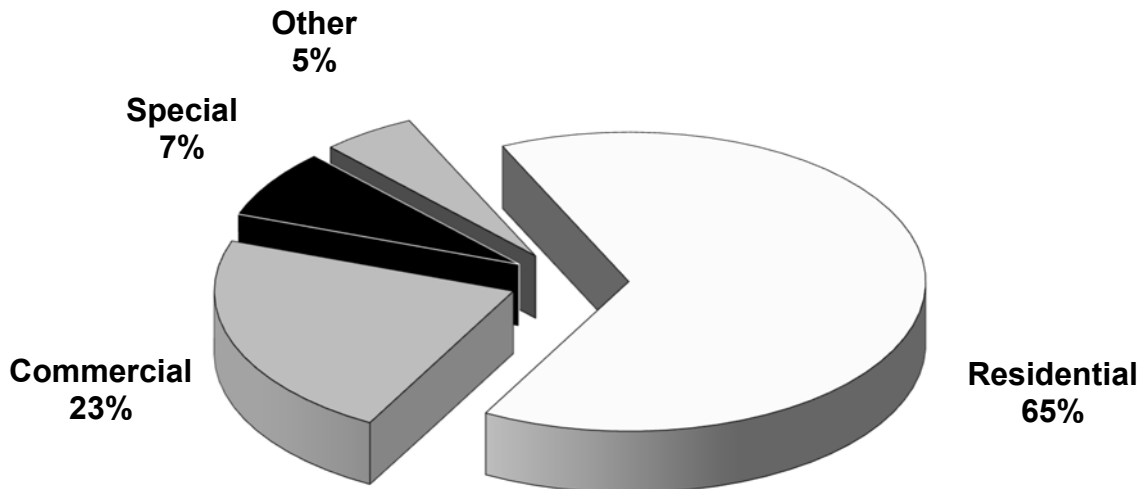
**WATER CONSUMPTION**  
Year to Date - December 2017 & 2016



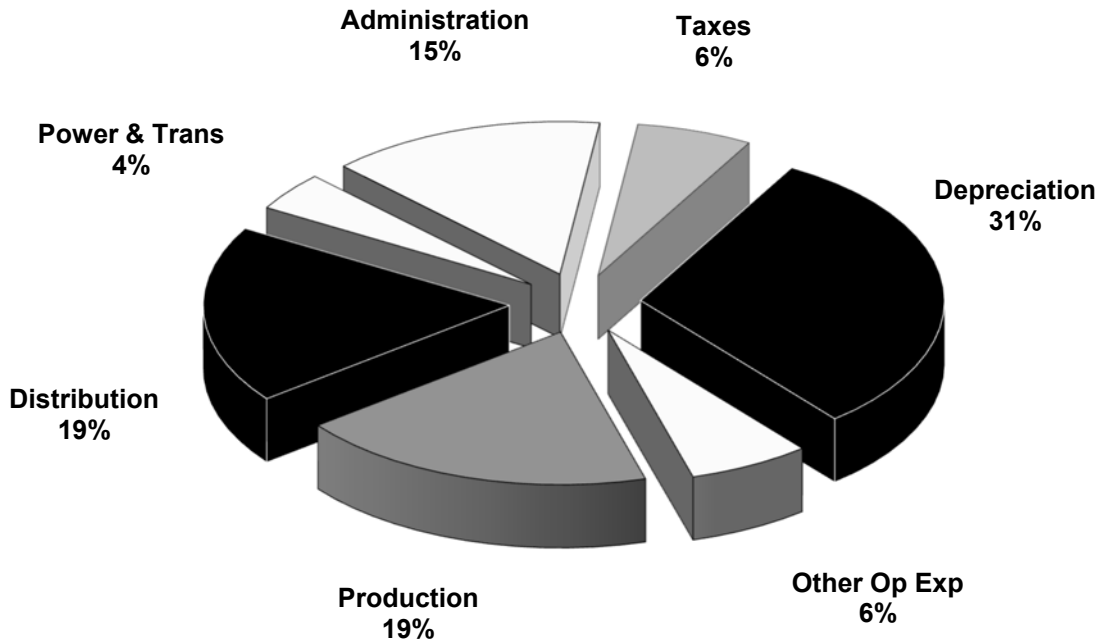
**WATER SALES**  
Year to Date - December 2017  
(\$79,999,893)



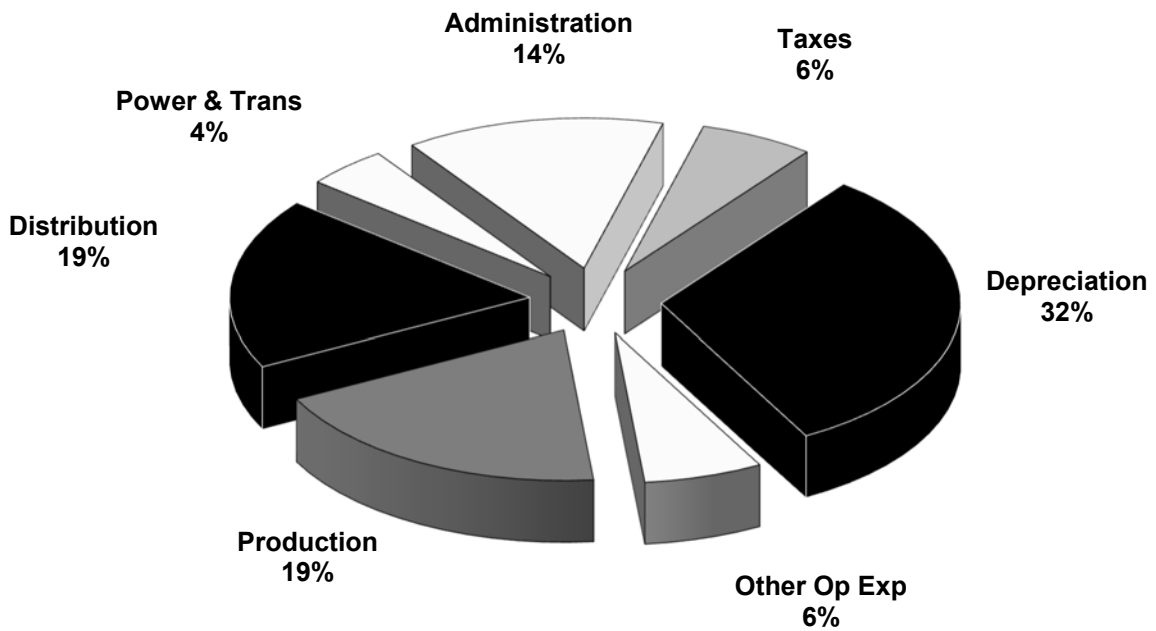
**WATER SALES**  
Year to Date - December 2016  
(\$77,980,741)



**TOTAL OPERATING EXPENSES**  
Year to Date - December 2017  
(\$77,866,083)

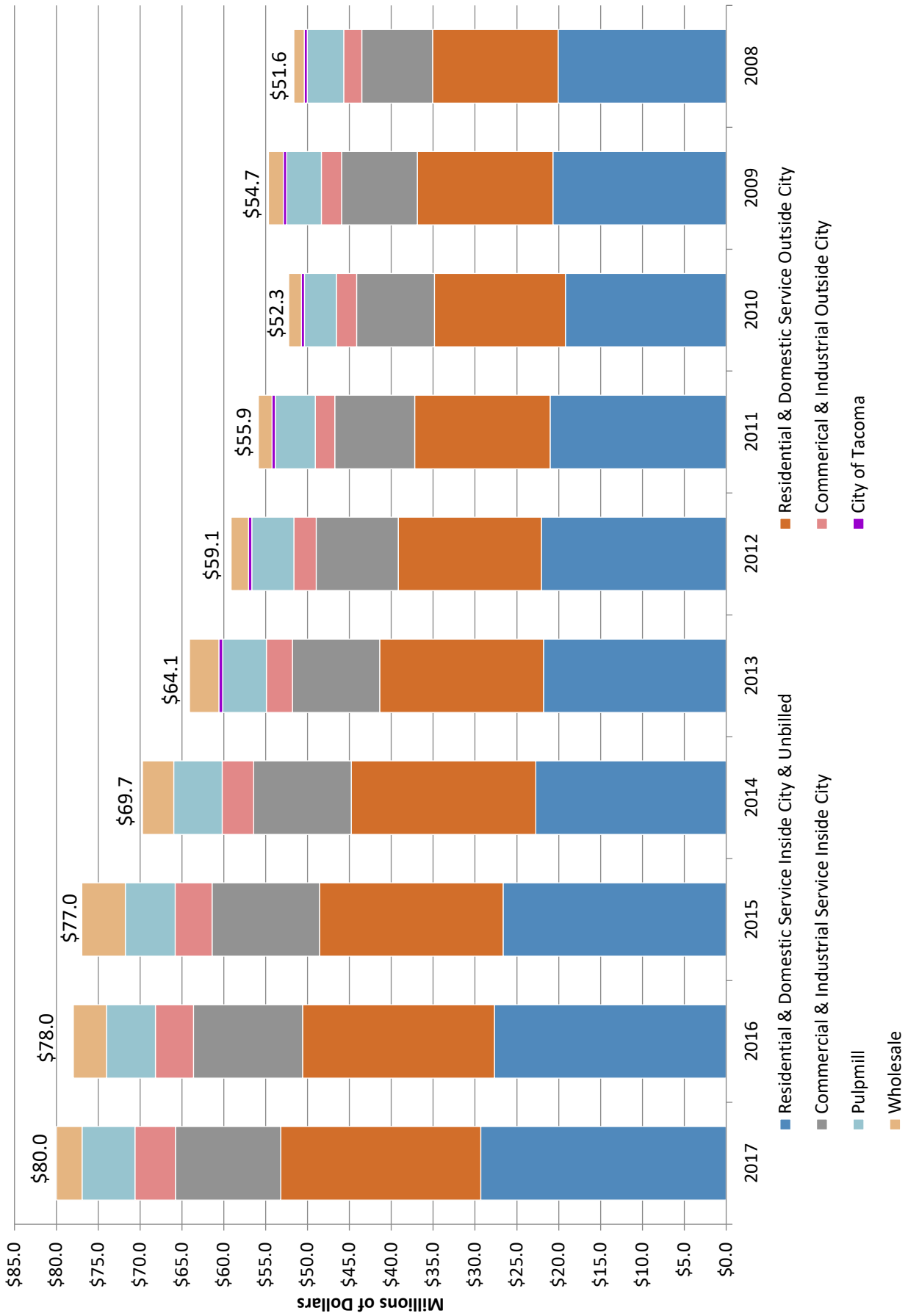


**TOTAL OPERATING EXPENSES**  
Year to Date - December 2016  
(\$75,355,921)

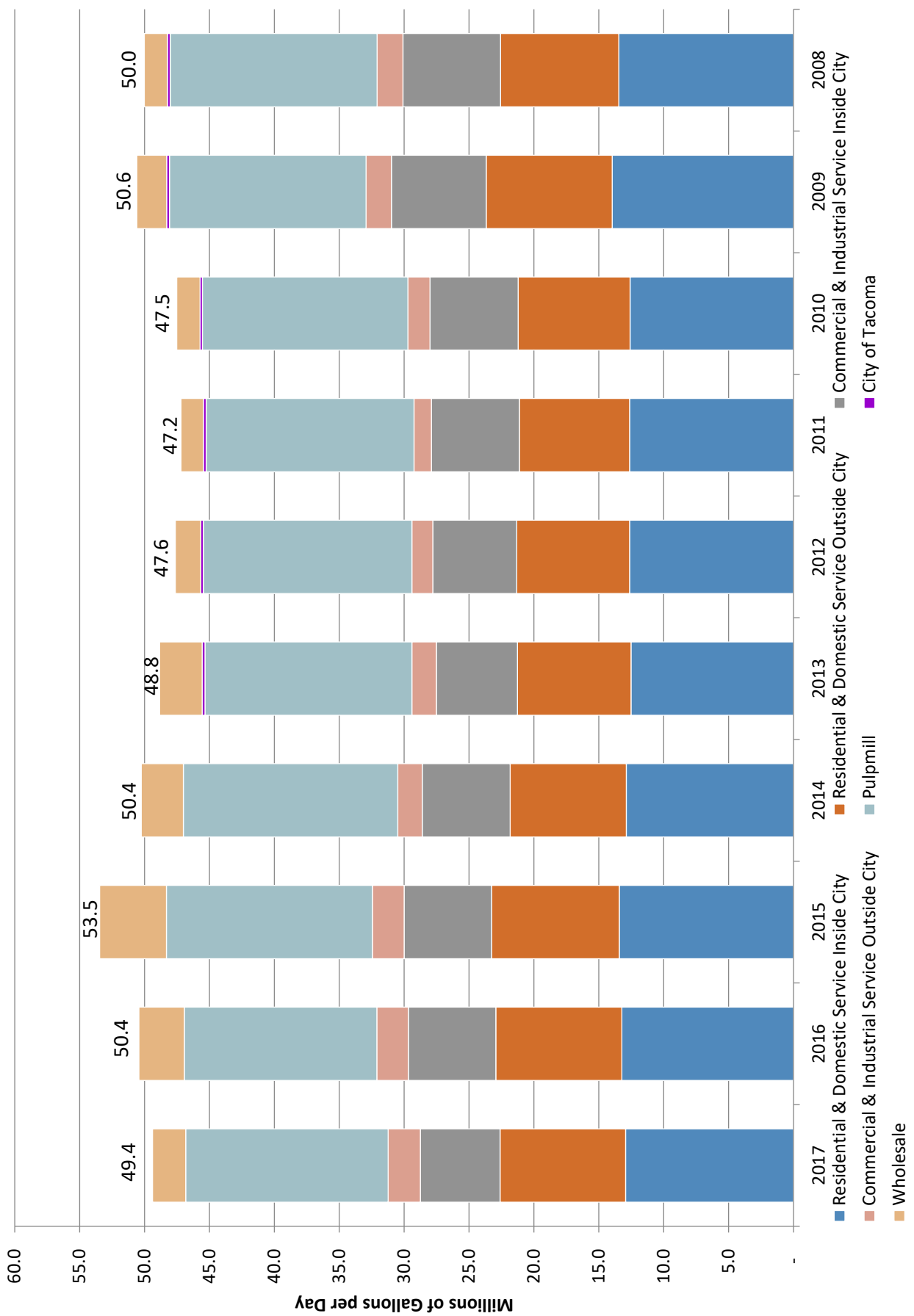




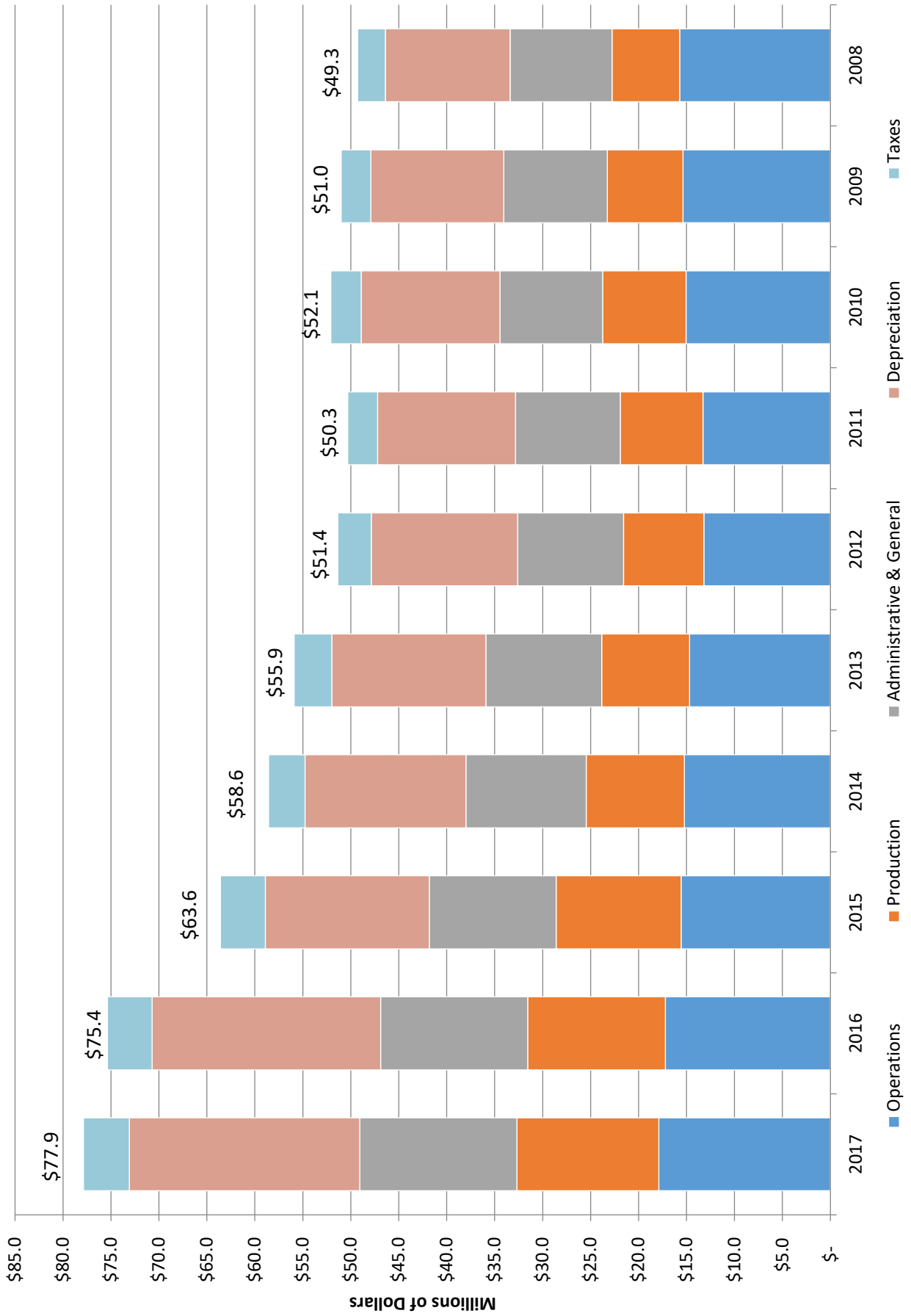
# TEN-YEAR SUMMARY OF WATER SALES (MILLIONS OF \$)



# TEN-YEAR SUMMARY OF WATER DEMAND (MGD)



# TEN-YEAR SUMMARY OF O&M EXPENSE (MILLIONS OF \$)



## **2017 SUPERINTENDENT'S REPORT TACOMA WATER**

2017 was a year of transition at Tacoma Water with the retirement of Linda McCrea, a long-time employee and water superintendent. Likewise for me as the new superintendent, moving from Virginia to Washington was a major change! Joining Tacoma Water in October, I have spent my first few months working hard to get to know the staff and trying to understand the most pressing issues here. In many ways it is striking how similar utilities are across the country. One thing I have noted is the depth of talented staff at Tacoma Water and how hard they work every day to ensure that our customers have reliable, safe, clean drinking water. It is my pleasure to share with you now the major accomplishments of 2017 and provide a glimpse into where we are moving in 2018!

One of the major tasks this year was to update the Water System Plan (WSP). Our primary regulatory agency, the Washington Department of Health (WDOH), requires the WSP be updated every 10 years. This was an update to the plan submitted in July 2007. It involved a complete review of the entire water system from source to treatment to transmission and distribution to all of our customers. As part of the process, the sub systems that make up the distribution system were analyzed in depth to ensure compliance with WDOH regulations and to verify that the system is properly planned to accommodate growth and other needs.

Coupled with the Water System Plan update was the development of an Integrated Resource Plan (IRP). Tacoma Water has robust and diversified sources of supply from the Green River to high production groundwater wells. One of the outputs of the IRP is a model that will allow Tacoma Water to know how best to use each of these sources year-to-year and season-to-season based on environmental conditions. A more detailed discussion of the IRP process is provided in the Water Supply section.

Finally, another key initiative that you will read about in more detail is what has been termed "planning and scheduling." It sounds like a simple concept, but it is truly a paradigm shift into how water utility assets have been managed and cared for in the past. Best practice Strategic Maintenance Management Programs utilize planning and scheduling concepts to ensure overall system reliability, improve safety and environmental compliance, reduce perceived emergencies, improve coordination between operations, maintenance, engineering and the warehouse, and ultimately increase productivity, quality and consistency of operation and maintenance activities. The Strategic Maintenance Management Program (SMMP) ensures Tacoma Water is doing the right thing, the right way at the right time. You will see this topic mentioned in a few different sections in the following paragraphs as each section is implementing this based upon the types of assets they manage.

So I hope you will enjoy a summary of what each of our operating sections has accomplished in 2017.

### **ASSET & INFORMATION MANAGEMENT**

#### Strategy Management

2017 marked the fifth year of Tacoma Water using a Balanced Scorecard approach to manage strategic work. Each year the strategy map is updated to identify the strategic objectives that will

be addressed in that year. Through strategy management efforts Tacoma Water has worked to ensure that the strategic work is prioritized, adequately resourced, actions are planned, progress measured, and issues resolved.

A total of 9 initiatives were completed in 2017, reflecting significant strategic progress Tacoma Water is making while continuing to provide a high level of reliable, safe, clean water at affordable rates to our customers. Our growing strategy management maturity helped ensure alignment, progress, and continuity during a year of uncertainty and leadership change.

An example of one of the initiatives completed is Si140 - Develop and promote a forum for sharing information about employee development opportunities. Through this initiative, a cross-functional team from across the organization developed a centralized, standardized platform that all employees can access and understand. This effort demonstrates our shared commitment to support, encourage and value employees and foster a culture of continuous employee development. It allows employees to take ownership of their development and facilitates improved discussions with supervisors. This initiative was employee-driven, and it highlights the value of pulling together cross-functional teams at Tacoma Water.

A final note, in 2017 Tacoma Water hired a dedicated Strategy Manager to oversee and facilitate the Strategy Management and Strategic Planning process. For the last several years, these responsibilities have been shared amongst several employees, and the filling of this role should allow those employees to better focus on their primary roles as well as bring more maturity and focus to the Strategy Management program.

### Asset Management

Tacoma Water went through some major transitions and endured several personnel changes in 2017 that made meaningful progress on planned Asset Management work challenging.

A large focus on the year was around gaining alignment between Operating Sections and seeking to move together as a cohesive team with respect to implementation of our Strategic Maintenance Management Program. With the forthcoming arrival of a long awaited mobile work management platform on the horizon, much focus was put on trying to better understand our entire work management process and assist sections in documenting both current state and future state processes.

### Strategic Maintenance Management Program (SMMP)

- A Planning and Scheduling Steering Team was created to ensure consistency with respect to the implementation of planning and scheduling concepts within each of the operating sections at Tacoma Water by providing the framework and necessary support for this effort.
- Following plans laid in 2016, we finalized a vendor contract to provide coaching, technical documentation and training related to our SMMP and work management efforts for 2017 and 2018.
- Working with the vendor, we documented current business state in a “brown paper” exercise with Distribution Operations.
- Asset Management developed a strawman work management business process diagram that can be used by operating sections as a framework for our desired future state.

## Treatment and Monitoring Strategic Asset Management Plan (SAMP)

- In 2017, Asset Management teamed up with the Water Quality section to update the Treatment and Monitoring SAMP. The report now covers the Green River Filtration Facility (GRFF) and the Hood Street groundwater treatment system to our system.
- A large focus on this effort was to document the high level maintenance plan strategies for these facilities, complete a criticality review of the GRFF systems (to aid in work prioritization) and to develop actionable recommendations for future SAMP related work.

## Other

- Asset Management supported lead gooseneck planning and coordination including a plan to identify and replace remaining goosenecks and development of a tracking tool. Additionally, over 250 specific services were identified for immediate replacement based on criteria such as street type, coordination with the City and ensuring equitable distribution of the work across our service area.
- Staff developed and completed the Day Island Pressure Release Valve Business Case to identify the best option going forward to deal with a corroded PRV, which if followed will result in a savings of over \$100,000 when compared to our historically preferred option.
- A standard repair plan was developed to successfully retrofit 6 Air Valves on Pipeline 1 to protect against possible cross contamination. Staff worked with crews, planners and warehouse to run the work management through SAP using future state business process.
- Tacoma Water received the PNWS AWWA Excellence in Engineering Award (Planning Category) for our Economic Model.

## Information Management

The first Tacoma Water interactive public map is now available on mytptu.org to display hydrant flushing status. It allows our customers to view a map via the internet of the areas we are working in during our annual flushing program.

The Economic Model application was enhanced with new functionality and directly integrated to our asset systems of record.

An emergency GIS map application was developed that allows our staff to view our service area and related assets; disconnected from the internet; during emergency response operations.

A new mobile application was created for capturing system fire flows and storing results on SharePoint.

Tacoma Water's GIS, BlueWave, was updated with 49 construction projects including 3,142 services and 52,567 LF of main and much more.

## **WATER QUALITY**

### Lead and Corrosion Control Evaluation

Following the Lead Response in 2016, the Water Quality Section proceeded with bringing in a consulting team of nationally recognized experts to evaluate Tacoma's corrosion control

treatment. Staff constructed 5 experimental pipe loop rigs that allowed for extensive testing of water through a variety of plumbing materials (lead, copper, and brass) harvested from water system customer connections. Weekly samples were collected by staff for 7 months, with all of the data provided to the consulting team. Although the recommendation report won't be finalized until Q1 of 2018, preliminary results indicate that Tacoma Water's current corrosion control treatment approaches (where provided) are successfully reducing the risk of lead being absorbed from customer plumbing fixtures. The final recommendation report will be submitted to the Department of Health, and pending their approval will establish optimized corrosion control treatment requirements for all of Tacoma Water's sources.

In addition to the ongoing work related to the evaluation of the corrosion control treatment process, Water Quality staff continued to process samples and results from the Customer Lead Sampling program. Through the end of 2017, 1,143 lead sample kits were requested by customers, and 570 samples were returned. Of these results, only 2 sample results were above the Action Level of 15 parts per billion (ppb) for Lead, and 89% of the results were below 1 ppb. Water Quality staff followed up with the 2 customers with high results, and follow up sampling results were well below the Lead Action Level for both of these homes.

#### Green River Filtration Facility (GRFF) Optimization and Filter Surveillance

An engineering consultant was selected through a competitive bid process to help with process optimization and to guide testing for biological activity monitoring. A 2-day workshop was held in September that covered filter evaluation, biological filtration/monitoring, settled turbidity optimization and seasonal manganese control. A schedule was drafted for sample frequency in 2018 and will analyze various water quality parameters and biological activity in order to establish baseline conditions. Core samples of filter media for each season will be collected and analyzed for 2 selected filters evaluating bed expansion percentage, media depth and creating a backwash turbidity profile and solids retention profile. This will allow calibration of the backwash sequence for an optimal duration and flowrate for summer and winter operations.

#### Green River Filtration Facility (GRFF) Performance Based Training (PBT)

Tacoma Water was invited to participate in the PBT program hosted by the Washington Department of Health along with other major utilities in the state including: Seattle, Everett, City of Bellingham, Pasco, City of Richland, Skagit PUD, City of Anacortes and Yakima. This program is a 15 month commitment designed to create a collaborative group that other operators can gain knowledge and valuable experience on lessons learned and best practices. Three employees from the Green River Filtration Facility were selected to represent Tacoma Water at each of the 3-day workshops, but everyone at the plant is participating in the continued effort to implement changes to further optimize the operations of the GRFF. Tacoma hosted the last session in October of 2017 and the group will be travelling to Skagit PUD the first week in February before wrapping up in June of 2018.

#### Sawmill Creek Fire

On September 4, a wildfire started in the Sawmill Creek area, near the abandoned town of Lester – part of the Green River Watershed. Tacoma Water activated its Incident Command System (ICS) with Watershed Manager Bryan King serving as the primary Incident Commander. Tacoma Water's ICS was incorporated into a larger Unified Command with Tacoma supporting and coordinating with the Washington Department of Natural Resources by providing access, helping set up camp, assisting with navigation of the watershed, and helping patrol and enforce the closed

area of the fire response. In addition, Water Quality engineering and GRFF operations staff researched the potential wildfire impacts to water quality, evaluated contingency plans if the fire spread rapidly, and developed and implemented a Water Quality Sampling Plan. The fire spread to an approximate 1,061 acres, and was eventually contained to its final boundary as fall rains began. The fire was eventually allowed to burn out until extinguished by winter rains and snows. Tacoma's ICS activation was closed out on October 4.

### Watershed Management Plan Update

As part of the Water System Plan update, Water Quality staff were heavily involved in the update of the Watershed Management Plan (part of the Water System Plan). Staff guided the development of the detailed Scope of Work, and provided significant input and review in the drafting of this plan update.

### Emergency Response Drills

The Watershed Management group led a planning effort and exercise in coordination with the Burlington Northern-Santa Fe (BNSF) railroad, and the US Army Corps of Engineers (USACOE), simulating a locomotive derailment and oil spill. We now have a cooperative "Spill Response Plan" with BNSF and USACOE, and this drill involved the deployment of absorptive booms in the vicinity of Tacoma Water's intake on the Green River. We believe this to be an important risk issue, and this coordinated response is a strong step forward in preparedness in this area.

### Property Management

The Environmental Stewardship Group of Water Quality was involved in a number of significant property sales in 2017, including a portion of the property adjacent to the McMillin Reservoir, Hyada, and the Wapato Triangle sites. We have evaluated all of our property holdings and determined which ones are no longer needed for system growth and are divesting those based on market conditions.

### Water System Flushing

Water Quality continued implementation of the revised unidirectional flushing program with assistance from Distribution Operations. We are continuing to collect and evaluate data from the crew work and are developing metrics which can be used to monitor the effectiveness and guide us in decisions related to additional program improvements. Working with Water GIS, we developed and deployed a public facing flushing map that allows our customers to see where our flush crews are and help them plan accordingly to minimize impacts from stirred up sediments in the mains. We also began developing a new flushing app for the crews that will improve how we collect data while minimizing the time impact on the crews in collecting the data. We anticipate rolling out the new app along with other program improvements in 2018.

## **WATER SUPPLY**

### Integrated Resource Plan

The Integrated Resource Plan (IRP) will ensure Tacoma Water has sufficient water resources, and provide an effective platform to communicate that capability. The utility primarily relies on its Green River surface water source, which is constrained at times by environmental commitments (such as guaranteed minimum instream flows) and natural weather phenomena. Groundwater is



an important supplemental source, and is used when needed. There are uncertainties regarding drought, climate change, water law, and growth.

We partnered with an engineering consulting firm to develop an analytical model to support a recommended resource strategy and action plan. Three Public Advisory Committee meetings were held in 2017 to increase awareness, solicit input, and inform policy. A Water Yield Supply and Demand Model is in development for both drought management (seasonal projections that can be applied in any given year) and capacity planning (60 years out). A preliminary version of this model was provided in October 2017. Tacoma Water staff are being trained to update, operate, and maintain the model moving forward.

Technical memoranda have been finalized documenting model selection, groundwater resource availability, and conservation program elements. A component of the groundwater review included evaluating the long-standing contamination at Well 12A, and the impact of that contamination on operating rules in place. This review has triggered Tacoma Water to request enhanced participation in the Final Remedy evaluation by the Environmental Protection Agency for the Time Oil Superfund site.

An ongoing delay in receipt of the latest climate change projections for Green River streamflow from the University of Washington Climate Impacts Group (CIG) has affected progress. The latest project schedule indicates a working draft IRP document without model results will be done early 2018. A complete draft with model results will be available in late May, and then the IRP will be finalized in late June.

#### Water Supply Forum – Resiliency

Building on the Phase I regional work completed in 2016, a Phase II project was initiated in 2017, and remains ongoing. This work builds on several key learnings from Phase I including:

- Development of regional level of service restoration times for water service following design earthquake events (Post earthquake level of service)
- Summarized inventory of key emergency response infrastructure and mutual aid agreements
- Evaluations of peer emergency operating plans
- Enhanced understanding of other key lifeline services affected in a seismic event
- A refined understanding of best practices in pre-event earthquake mitigation strategies
- An analysis of specific stressors that could impact water quality in water systems at a regional scale
- Procedures for restoration of acceptable water quality after a significant event
- Regional workshop on best practices for Climate change modeling

The final reports for these elements will be completed in 2018.

#### Planning & Scheduling

We continue to create and improve Preventive Maintenance (PMs) plans for all maintenance work that we do. This year we focused on updating existing plans with feedback from the supervisors and field staff. This is the first step in our continual improvement process and will be something we work on every year.

In 2017 we created approximately 2,500 discrete work orders tied to specific locations in our system. These work orders connect specific maintenance/repairs to specific pieces of equipment allowing us to better understand the time and cost of ownership for our assets. There remain opportunities to improve and expand the work captured, and we continue to grow this capability.

### Electrical System Improvements

#### Standby power

Tacoma Water owns a total of 27 standby generators to provide power at critical facilities during utility power outages. Some of these generators have been in service for more than 25 years and show increasing signs of degradation. Following analyses of system risks, replacement of two of these generators was initiated. These upgrades to the electrical system will maintain the desired level of service, reduce system complexity and maintenance, and increase reliability and capacity.

#### Groundwater control systems

To provide better operational management of the groundwater system, significant control system upgrades were completed in 2017. The upgrades include replacing the Programmable Logic Controller (PLC), power supplies and communication devices. New Operator Touch Panel otherwise known as the Human Machine Interface (HMI) has also been installed to replace the obsolete paper chart recorders. The new HMI provides graphic local control and status and at the same time stores historical data trends of local operating values that makes up the well pumping process. Control system upgrades were completed for five wells this year; a remaining seven wells will be upgraded in 2018.

### Seismic Evaluation of Essential Facilities

In 2017, Tacoma Water implemented recommendations contained in the 2016 All-Hazards Vulnerability Assessment (VA) to investigate the seismic resiliency of the Hood Street Reservoir, two buildings adjacent to the Hood Street Reservoir (the chlorination building and the pump station/hydro generation station), the South Tacoma Pump Station, and the Water Operations Building. Through VA analysis process, these facilities were identified as essential infrastructure and initial high level evaluations indicated they would not perform well in seismic events.

A consultant was hired to perform a more detailed seismic evaluation of the reservoir and four buildings. The work in 2017 involved the inspection of the reservoir and the existing buildings, the analysis of the performance of the reservoir and the existing buildings in three specific earthquake scenarios, and the identification of mitigation alternatives for the reservoir and those buildings that did not perform well in the specific earthquake scenarios.

The consultant performed geotechnical analysis of the sites and structural analysis of the reservoir and four buildings. Detailed technical memoranda were prepared identifying geotechnical and structural findings.

In 2018, the results from the investigation will be used to develop mitigation options and a final alternative selection workshop will be convened to determine the best seismic hazard mitigation for these facilities. Design work, though not included in this initial contract, may follow the selection of the final seismic hazard mitigation alternatives.

## **FINANCE AND ANALYTICS**

In 2017, the Water Rates & Financial Planning group changed its name to Finance and Analytics, which reflects the group's recent reorganization and expansion into the areas of organizational performance management and analytics. This reorganization, and the hiring of staff dedicated to both "Financial Stewardship" and "Programs & Analytics" functions of this new group, will enable Tacoma Water to advance its analytical capabilities while continuing to improve financial management.

### 2017-2018 Cost of Service Rate Adoption and Implementation

Approval from the Tacoma Public Utility Board and City Council was received early in 2017 for a four percent overall rate increase beginning April 1, 2017. The impact to a typical residential bill was about \$1.50 per month. Approval was also received for an additional four percent increase effective January 1, 2018.

### Project Management

Tacoma Water completed a project management maturity assessment in 2017, which took stock of Tacoma Water's maturity across "Project Management Knowledge Areas" and "Project Management Process Groups" according to Project Management Institute (PMI) standards. Because the organization scored low in a variety of areas, the assessment resulted in a number of recommendations to improve project management maturity over time, to include the development of a common project management lexicon, development and publication of an electronic "PM Notebook," staff training and the deployment of project management tools.

Tacoma Water also completed an initiative to improve capital project reporting through a system of capital reports that are made visible to the entire organization and updated on a quarterly basis.

### Advanced Metering Infrastructure (AMI)

The Public Utility Board approved AMI as a "project of limited duration" in 2017, which provided conceptual support for the project and enabled the hiring of critical project staff to formally begin the project, to include the hiring of an AMI Program Manager. A series of business process workshops were conducted in late 2017 which set the table for procurement of meters and a meter data management system in early 2018.

### Wholesale Market Pricing Development

Water achieved conceptual support from executive leadership to move forward with a holistic evaluation of its fixed fees, system development charge, and wholesale pricing platform, to include associated policy development. Tacoma Water met with its wholesale customers in September to discuss the current state of the regional wholesale market, and some of the concepts that will be considered in the coming year.

## **DISTRIBUTION ENGINEERING**

### Lead Gooseneck Replacement Plan

Distribution Engineering, Distribution Operations and Asset & Information Management collaborated to develop a Lead Gooseneck Replacement Plan. The replacement plan lays out means for removing all of the 1,215 suspected lead goosenecks from the distribution system within the next five years. The project's objectives will complete the work in a geographically equitable manner, provide relevant regular communication to staff and public, and involve a coordinated effort with area partners in an effort to minimize disruptions to staffing levels and planned work. The plan has been implemented and 226 suspected lead gooseneck locations were either removed or verified not to have a gooseneck by Distribution Operations staff in 2017.

### System Acquisition

On November 1, 2017, Tacoma Water took over system operation of the Curran Road Mutual Water Association water system. Tacoma Water and Curran Road staff worked collaboratively to transition more than 620 accounts to Tacoma Water. Design for initial main replacement projects has begun, with main replacement work continuing for the next 8-10 years. Improvements to the acquired water system will be paid for through a customer surcharge for those customers living within the former Curran Road service area.

### Main Replacement Program

Over 7 miles of new distribution main was added to the system and 31 design plans were completed for new developments. Approximately 2 miles of distribution main were replaced in 2017 as prioritized through the distribution mains economic model. Almost 13 miles of distribution mains were added to the system through the acquisition of Curran Road Mutual Water Association.

In 2017, Tacoma Water was the recipient of the PNWS AWWA Award for Engineering Planning Excellence for the development and use of the Distribution Mains Economic Model.

Tacoma Water has worked with the Department of Public Works and Sound Transit to develop final plans for the extension of the Tacoma Link Light Rail system. Due to the location of the proposed tracks, nearly two miles of water main will be replaced to facilitate the construction of the Light Rail extension.

### Decant Facility

Tacoma Power and Tacoma Water collaborated to develop a bid package for a shared decant facility located at Tacoma Power's Southwest Substation. The decant facility is being constructed in response to concerns from the Tacoma Pierce County Health Department regarding how hydro-excavated soil is managed. The new decant facility will comply with requirements for the handling of solid waste, and protect groundwater resources in the South Tacoma Groundwater Protection District. Completion of the decant facility is expected in mid-2018.

## Conservation and Efficiency Programs

Tacoma Water created a new ten-year conservation plan and goal, using valuable feedback from staff, stakeholder groups, and public input. In 2017, our conservation program attended 20 community events, totaling over 1,700 conversations about conservation with our customers. We gave out over 1,400 water-efficient showerheads and over 1,500 faucet aerators. Working with TPU's account executives, we also completed two water conservation rebate projects with Multicare, which are estimated to save over 7 million gallons per year.

## New Services

The Customer Support Group continued to execute at a high level to meet the developer demand for the construction of schools, short plats, shopping centers, restaurants, residential homes and apartments. The workload production statistics match the sentiment around the Puget Sound region regarding economic development for new business and real estate. We saw numbers that are close to the peak economic period boom from a decade ago.

In 2017, we created over 1,000 fixed fee orders, which was near the average from 2004-2008, and is over triple the amount from the low of 297 in 2010. The number of time and material orders remained strong and steady compared to the past 5 years bringing in a record breaking \$2 million for private development work. Pierce County growth was the strongest we've seen since 2010, we issued a record breaking 250 water availability letters for development. It was the second year for the Permit Counter to serve the walk-in customers in the TPU Main Lobby through the Qmatic queuing system serving over 1,000 walk-in customers.

## H2O TO GO – Water Bottle Refill Stations

Tacoma Water partnered with Metro Parks Tacoma to install its first combination water bottle refill station-drinking fountain and water conservation messaging at the STAR Community Center in South Tacoma. The project goal is to communicate the value of Tacoma's water to customers by linking tap water to the Green River, to promote thoughtful and efficient water use and water as a renewable resource. Further installations are planned for 2018 and beyond with additional partners that include the City of Tacoma Public Works Department and Tacoma Pierce County Health Department.

## **DISTRIBUTION OPERATIONS**

### Construction

New water service installations were up from a year ago totaling 1,060, and the number of new meter installations increased significantly for the second year in a row to 1,908. The numbers reflect a steady pattern of growth over the past few years.

### Operations

In 2017, the system experienced 55 main breaks (4.4 breaks/100 miles of pipe/year). Up from last year's 36 main breaks (2.9 breaks/100 miles of pipe/year), this is still well below the industry target of 15 breaks/100 miles of pipe/year and reflects a highly reliable water system.

## Meters

In an effort to target high-use meters, a High Consumption Meter project was started with dedicated staff and planning. The team exchanged 481 meters.

## Flushing

The unidirectional flush teams cleaned 228 miles of main in 2017, approximately 17% of the distribution system. Additionally, 2,045 dead end mains were flushed.

In effort to refine and enhance the outputs of our hydraulic model, Tacoma Water conducted fire hydrant flow tests at approximately 150 locations throughout the water system. These tests will help the utility better understand how water flows through and the pressures in its water mains.

## Planning & Scheduling

In 2017, Distribution Operations completed an initiative to begin implementing planning and scheduling. Organization structure was set up, dedicated staff was hired, and a consultant was brought in to facilitate the completion of strategic milestones. Notable milestones include holding a two day training with Operations Managers, Planners, and Supervisors, multiple brown paper exercises to document current work processes, and established desired future state work processes to align with the capabilities of the mobile project.

A Planning and Scheduling steering committee was stood up to create alignment between the operating groups focusing on organizational structure and communication. Multiple meetings were held to promote and educate staff on the effort.

## Safety

Tacoma Water's recordable injuries continued to trend downward with a 29% reduction from 2016 (61% reduction from 2012). Much of the success can be attributed to the continued effort to raise Safety awareness through increased communication and open dialogue between all employees. Safety centric field audits, monthly trainings, morning supervisor meetings, onsite daily tailgate meetings, as well as manager's attendance at Safety Committee meetings have all increased in regularity and have been refined to promote a heightened regard for Safety.

Emphasis and improvements were applied to the Confined Space and Silica programs which will ensure long lasting and durable mitigations to these specific hazards.

Tacoma Water's success can also be attributed to the increased efforts to promote Safety at the TPU level. An inaugural meeting of all Safety Committee members throughout TPU was held to discuss the promotion of Safety through posters, banners and quarterly magazines. A consultant was hired to review the safety culture at TPU and provide a report and recommendations for action. The review will include interviews with a subset of employees at all levels of the organization, and a survey to all employees.

Scott Dewhirst  
Water Superintendent



The City of Tacoma does not discriminate on the basis of disability in any of its programs, activities, or services. To request this information in an alternative format or to request a reasonable accommodation, please contact the City Clerk's Office at (253) 591-5505. TTY or speech to speech users please dial 711 to connect to Washington Relay Services.