

**BEFORE THE
CALIFORNIA PUBLIC UTILITIES COMMISSION**

PREPARED DIRECT TESTIMONY

OF

**JAMES P. LYNCH
SAN JOSE WATER COMPANY**

COST OF DEBT AND CAPITAL STRUCTURE

April 2017

DIRECT TESTIMONY OF JAMES P. LYNCH

COST OF DEBT AND CAPITAL STRUCTURE

Introduction

This testimony establishes the forecasted cost of debt and the long term debt ratio and capital structure for San Jose Water Company ("SJWC") for the 2018 through 2020 period. This testimony also explains certain company-specific risks facing SJWC that are relevant to the determination of an appropriate capital structure for the company.

Financial Requirements

SJWC forecasted its financing needs based on its expected earnings, capital expenditures and dividend payments for the years 2018 through 2020.

Schedule 1 illustrates the Company's financing requirements for the years 2016 through 2020. For the sake of simplicity, SJWC estimates that its financing requirement for 2021 is the same as in 2020. During the three years 2018 through 2020, SJWC expects to disburse approximately \$360 million for capital projects, retire assets at a cost of \$13 million, repay advances and fund CIAC taxes totaling more than \$4 million, and make dividend payments of \$58 million.

SJWC will utilize internally generated funds and will issue new equity as necessary to finance approximately 76% of its forecasted financing needs. The remaining balance will be satisfied by new long-term debt borrowings.

Schedule 2 details the actual common shareholder equity for 2016 and forecasted common shareholder equity for the years 2017 through 2020. Projected common shareholder equity includes total capital infusions of \$25 million during the forecasted three year period 2018 through 2020.

Company Specific Risks

Many California water utilities share similar risks and uncertainties associated with the uncertain economic conditions, environmental restrictions, ever more stringent water quality regulations, extreme water sales fluctuations due to climate change and customer water consumption changes, restrictions on long term water supply availability, and all the operational challenges associated with the delivery of safe and reliable water service to customers. However, SJWC is faced with additional unique challenges.

In recent years, SJWC has experienced a steep decline in water sales. This has created significant variability and instability in the Company's revenue recovery. The demand destruction has been caused by a multitude of factors, such as water use restrictions caused by California's ongoing and historic drought, environmental concerns over pumping water from the Sacramento Delta, and persistent conservation messages communicated to water customers. Because SJWC operates a large urban water system contained within a single ratemaking district, which has undiversified geographical and political concentration risks, SJWC experiences a higher variability in its sales associated with consumption restrictions and conservation messaging. SJWC's high average beta (0.81 from PMA-7) in comparison with its proxy group (range of 0.63 to 0.83 from PMA-7) is a reflection of the financial market's recognition of this higher variability.

SJWC's capital expenditure program is intended to systematically replace aging infrastructure and provide new infrastructure to address changing conditions within our service territory. For example, in 2013, the Commission approved SJWC's application to upgrade its Montevina Water Treatment Plant to comply with the increasingly stringent Federal and state water quality requirements. Set to come on line in 2017, this upgrade represents an investment of approximately \$62 million.¹ Water treated by the Montevina

¹ By Decision 13-07-028, the Commission authorized SJWC to proceed with construction of the Montevina upgrade project and to make annual advice letter filings for inclusion of properly recorded project costs in rate base up to a construction cost estimate of \$62 million, which would be treated as an advice letter cap for ratemaking purposes. *Id.*, Ordering Paragraph 3. SJWC's Advice Letter No. 506, filed February 17, 2017, is the most recent annual filing pursuant to that authorization.

Plant is surface water, SJWC's lowest cost supply, which on average comprises about 6% of total annual water production. Planned 2018-2020 capital budgets include new infrastructure to further develop a reclaimed water program to secure a new long term drought proof water supply source. SJWC's capital expenditure budget for the 2018-2020 will be approximately \$360 million. The risk associated with operating a single fully integrated urban water system, securing long term sources of water, and managing a multi-year capital budget of greater than \$360 million are significant.

Factors that impact the long term water supply risk and revenue recovery uncertainty for SJWC include the complexity of environmental regulations that restrict water use allocation to urban users, unpredictable climatic conditions and changes to traditional water consumption patterns, rapid technological change, and sluggish economic growth. An example of such risks, further complicated by regulatory lag, is the 2014 implementation of a 20% water use reduction program mandated by SJWC's wholesaler, Santa Clara Valley Water District ("SCVWD"). SJWC sought Commission approval to establish a temporary Mandatory Conservation Revenue Adjustment Memorandum Account ("MCRAMA") to track the impact of mandated conservation on SJWC's revenue, which was granted only after SJWC agreed to a 20 basis point reduction to its authorized ROE. SJWC's subsequent request to recover the accumulated MCRAMA balance was ultimately denied under the established account but allowed under an alternative mechanism, a temporary Water Conservation Memorandum Account ("WCMA"). This occurred only after a lengthy regulatory review during which SJWC had to dedicate considerable time and resources to the protracted process.² The allowed recovery amount under the WCMA was significantly lower than what was requested under the MCRAMA.

The crisis-level drought conditions in 2014 became more severe in 2015 leading to unanticipated and extraordinary regulatory actions by the Governor, the State Water Resources Control Board ("SWRCB") and the Commission. In April of 2015, Governor Jerry Brown issued an executive order imposing restrictions to achieve a statewide 25%

² Advice Letter No. 468, filed March 26, 2015; see also CPUC Resolution W-5071 issued December 3, 2010.

reduction in potable urban water use. This occurred shortly after the SWRCB adopted expanded emergency regulations and the SCVWD increased their conservation target from 20% to 30%. Despite the fact that the state-mandated standards were replaced in late 2015 by a supply-based conservation standard calculated on an individual water supplier-basis, SJWC remained subject to the SCVWD's more stringent 30% reduction conservation mandate through the middle of 2016, and remains subject to a 20% reduction conservation mandate today. For its part, the Commission issued and adopted numerous complex resolutions to address the need for voluntary and mandatory conservation measures to generate necessary reductions in consumption during circumstances of prolonged or severe drought. SJWC is pleased that, through its compliance with these regulatory actions and efforts, SJWC was able to achieve 28% and 29% water use reductions in its service area in 2015 and 2016, respectively. However, the regulatory (and consumer) response to the drought highlights the risk SJWC faces due to climatic changes and the regulatory process.

During 2013, for the first time in more than 25 years, SJW Corp., the parent of San Jose Water Company, needed to infuse equity capital into SJWC due to the significant cash flow requirements associated with SJWC's infrastructure replacement programs, compounded by its then weakened earnings. This further underscores the increased financial and regulatory risks faced by SJWC. SJWC has not been granted a Water Revenue Adjustment Mechanism ("WRAM") or a Modified Cost Balancing Account ("MCBA") by the Commission. SJWC currently only has in place the previously mentioned temporary WCMA as authorized by the Commission. In addition, the Company has a "Monterey-style WRAM," which functions as a rate adjustment mechanism that tracks the difference between the revenue SJWC receives for actual metered sales through its tiered volume rates and the revenue SJWC would have received through a uniform, single quantity rate, had such a rate been in effect. This price-based mechanism does not decouple revenue from sales, as does a "full" WRAM/MCBA." In each of its last two general rate case applications, SJWC has requested Commission approval to implement a

“full” water revenue decoupling mechanism similar to what the Commission has approved for five other Class A water utilities,³ but the Company has had those requests rejected.⁴

Absent the temporary WCMA, SJWC is fully exposed to the demand destruction described above and therefore faces a higher level of business risk, a risk that the Commission previously quantified as 20 basis points in SJWC’s 2009 MCRAMA proceeding.

Cost of Capital Adjustment Mechanism

As an element of SJWC’s last cost of capital decision, D.10-10-035, the Commission adopted a cost of capital adjustment mechanism that provides for an automatic up or down adjustment in the “adjustment years” (the second and third years of a three-year cost of capital period). The adjustment mechanism has only been triggered once in the years since its adoption (a downward adjustment), but SJWC agrees with the Commission that, in principle, an adjustment mechanism that is “based on changes in actual interest rates is superior to using out-of-date forecasts of debt costs.”⁵ Accordingly, SJWC recommends that its cost of capital adjustment mechanism be retained.

Issuance of Common Equity

The financial and credit markets have recovered post-recession; however, turbulence associated with policies of the new Administration in Washington and the Federal Reserve as well as recent changes in economic indicators suggest there will be future market instability. This creates uncertainty surrounding SJWC’s ability to access long-term financing.

³ D.08-02-036 adopted a WRAM/MCBA for California Water Service Company and Park Water Company, D.08-08-030 adopted a WRAM/MCBA for Golden State Water Company, D.10-12-029 adopted a WRAM/MCBA for Valencia Water Company, and D.12-09-004 adopted a WRAM/MCBA for Apple Valley Ranchos Water Company.

⁴ D.14-08-006 at 117-118; D.16-06-004, at 15-16.

⁵ D.10-10-035 at 65 and 73, Conclusion of Law No. 11.

In light of the recovery of the financial and credit markets in 2011 and 2012, SJWC issued new common equity in 2013 in order to satisfy a portion of its future long-term financing needs. SJWC expects to make an additional issuance of new common equity in 2018, as market conditions permit. SJWC expects that proceeds from the common equity issuance will help to maintain its existing bond credit rating, and reduce future financial risk and leverage.

Long-Term Debt Ratio

SJWC expects to borrow a total of \$80 million during the forecasted three year period 2018 through 2020. In addition, SJWC expects to infuse \$25 million in new equity. As a result of its forecasted earnings, equity infusion and increased borrowings, SJWC's common equity ratio is projected to range from 52.76% to 53.67%, for an average of 53.28%. SJWC's long-term debt ratio will range from 46.33% to 47.24%, for an average of 46.72% (Schedule 2).

Cost of Long-Term Debt

SJWC estimated its cost of future long-term debt using the *Blue Chip Financial Forecast* (March 1, 2017). The second quarter forecasted interest rate for corporate Aaa bonds in the Blue Chip Financial Forecast is 5.3%. In December 2016, Standard and Poor's Bond Rating Service classified SJWC as an A rated water utility. The Company adjusted the corporate Aaa bond rating by 0.19% to reflect the yield spread between Aaa rated corporate debt and A rated utility bonds. The Company adjusted the yield spread by an additional 0.08% to reflect the credit profile (size and business risk) of the Company compared to its proxy group of utility companies as described in Schedule 5.1. In addition, the Company estimates the cost of issuance will add 0.05%. The Company therefore estimates the interest cost of its future planned long-term debt to be 5.62%. In December 2016, SJWC entered into a loan agreement with the California Pollution Control Authority ("CPCFA"). The CPCFA simultaneously entered into an indenture with a trustee pursuant to which the CPCFA issued \$70 million of tax-exempt fixed rate revenue bonds carrying

an annual interest rate of 4.75%. However, the Company's forecasted cost of long term debt includes the use of taxable debt rather than tax exempt bonds as the tax pricing benefits of using tax exempt debt are expected to diminish with the changes to the tax code currently being discussed by the new Administration in Washington. In addition, the pricing of tax exempt debt tends to be more volatile than taxable debt, and the availability of tax exempt borrowings is uncertain during the period in which the funds will be needed.

In order to minimize issuance cost, SJWC issued its most recent senior note of \$50 million in 2014 in a single offering. Larger offerings typically attract more bidders, and therefore the borrowing rate is more competitive. In addition, the issuance fee for one large offering is more cost effective than two or more smaller, separate offerings.

Long-Term debt issuance costs for SJWC have been relatively low historically because SJWC has issued long-term debt principally through private placements. Administrative costs and rating agency fees are reduced by the private placement of debt. SJWC has incurred issuance costs between 36 basis and 197 basis points of the principal amount for its privately placed long-term debt. As SJWC does not anticipate issuing tax free debt in 2018, it has included an estimated issuance cost for privately placed debt in its cost of long-term debt calculation.

Total estimated cost of future issuances of long-term debt, including cost of issuance, is 5.62% (Schedule 5.1).

Weighted Average Cost of Debt

The weighted average cost of long-term debt consists of interest and issuance costs. Issuance costs are amortized over the lives of the related debt instruments.

Using the 5.62% forecasted cost of debt for future financing, SJWC estimated its cost of long-term debt for the years 2018 through 2020 (Schedules 5 and 6). SJWC then computed its weighted average cost of debt for the years 2018 through 2020 by averaging the beginning of the year cost of debt with the end of the year cost of debt. Schedule 4 illustrates the Weighted Average Cost of Long-Term Debt for the years 2017 through 2020.

Recommendation

As detailed in Schedule 4, SJWC's estimated weighted average cost of debt begins at 6.25% in 2018, decreasing to 6.16% by the end of 2020. The average cost of debt is 6.21% for the three years.

SJWC recommends the adoption of the following cost of debt ratio for long-term debt and capital structure:

<u>Years</u>	<u>Weighted Average Cost of Debt</u>	<u>Long-Term Debt Ratio</u>	<u>Equity Ratio</u>
2018-2020	6.21%	46.72%	53.28%

SAN JOSE WATER COMPANY
(U 168 W)
FINANCIAL REQUIREMENTS
(DOLLARS IN THOUSANDS)
2016-2020

Schedule 1

	Actual 2016	2017	Forecasted 2018	2019	2020	TOTAL
Funds Required:						
Company financed additions to utility plant	\$124,521	138,390	129,770	112,930	116,310	621,921
Cost of Retirements	3,320	4,034	4,155	4,280	4,408	20,197
Changes in current assets and liabilities	(1,326)	(43,931)	(1,061)	11,408	(314)	(35,224)
Change in regulatory assets	(19,297)	13,000	(8,000)	(8,000)	0	(22,297)
Refunds on Advance including gross-up	2,522	2,121	1,338	1,378	1,420	8,779
CIAC additions	11,237	5,000	5,000	5,000	5,000	31,237
Intercompany borrowings with affiliates	7,137	616	0	0	0	7,753
Taxes on Contributions and Advances & CIAC	1,010	1,000	1,000	1,000	1,000	5,010
Dividends	16,000	18,000	19,000	19,000	20,000	92,000
Total funds required	145,124	138,230	151,202	146,996	147,824	729,376
Funds Provided:						
Funds from Operations:						
Retained earnings Schedule 7	43,960	33,904	44,332	49,875	52,764	224,835
Depreciation	42,726	45,317	49,798	53,611	57,535	248,987
Other	20,627	0	0	0	0	20,627
Refund of income taxes from JCA 2010						0
Normalization of income taxes	7,468	17,395	11,070	3,660	(7,621)	31,972
Total funds provided prior to financing	114,781	96,616	105,200	107,146	102,678	526,421
Financing required before working cash	\$30,343	41,614	46,002	39,850	45,146	202,954
BOY working cash	\$3,479	24,710	1,175	2,885	4,104	3,479
Financing required	26,864	16,903	44,827	36,965	41,042	166,602
Short-term financing 12/31/XX	53,608	16,482	20,800	4,000	46,000	140,890
Repayment of short-term financing	(81,108)	0	0	(44,900)	0	(126,008)
Long-term financing 12/31/XX	70,000	0	0	79,846	0	149,846
Repayment of long-term financing	(1,748)	(147)	(150)	0	(158)	(2,203)
Receipt of advances and CIAC	10,965	1,743	2,062	2,123	2,187	19,080
Other	(143)	0	0	0	0	(143)
Equity Infusion	0	0	25,000	0	0	25,000
Total financing requirement	51,574	18,078	47,712	41,069	48,029	206,462
EOY Working Cash	24,710	1,175	2,885	4,104	6,987	6,987
% of construction funds generated internally	76%	70%	65%	65%	61%	67%

Schedule 2

SAN JOSE WATER COMPANY
(U 168 W)
COMMON SHAREHOLDER EQUITY
2016 - 2020

	----- Forecasted -----					
Actual	2016 (1)	2017 (2)	2018 (2)	2019 (2)	2020 (2)	TOTAL
BALANCE, BEGINNING OF YEAR Schedule 7	\$ 357,404,000	\$ 386,027,000	\$ 403,165,209	\$ 454,409,145	\$ 486,223,871	\$ 357,404,000
EARNINGS Schedule 7	\$ 61,698,000	\$ 56,538,483	\$ 66,966,210	\$ 74,774,367	\$ 79,929,338	\$ 339,906,397
DIVIDENDS Schedule 7	\$ (16,000,000)	\$ (18,000,000)	\$ (19,000,000)	\$ (19,000,000)	\$ (20,000,000)	\$ (92,000,000)
Capital Infusion Schedule 7	\$ -	\$ -	\$ 25,000,000	\$ -	\$ -	\$ 25,000,000
OTHER ADJUSTMENT Schedule 7	\$ (17,075,000)	\$ (21,400,274)	\$ (21,722,274)	\$ (23,959,641)	\$ (26,200,007)	\$ (110,357,195)
BALANCE, END OF YEAR Schedule 7	\$ 386,027,000	\$ 403,165,209	\$ 454,409,145	\$ 486,223,871	\$ 519,953,202	\$ 519,953,202
Weighted Average		\$ 394,596,105	\$ 428,787,177	\$ 470,316,508	\$ 503,088,536	
COMMON EQUITY RATIO Schedule 3	51.35%	51.60%	53.67%	53.41%	52.76%	
LONG-TERM DEBT RATIO Schedule 3	48.65%	48.40%	46.33%	46.59%	47.24%	
PAYOUT RATIO	25.93%	31.84%	28.37%	25.41%	25.02%	27.07%

Assumptions:

1. 2016 earnings and dividends per Company Actual for Regulated Company
2. 2017 - 2020 earnings based on Schedule 7

Schedule 3

**SAN JOSE WATER COMPANY
(U-168-W)**

**PROPOSED RATE OF RETURN
(2016 - 2020)**

	Capital Ratio	Effective Rate %	Rate of Return
<u>2016</u>			
Long-term Debt	48.65%	6.42%	3.12%
Common Equity	<u>51.35%</u>	9.43%	<u>4.84%</u>
	<u>100.00%</u>		<u>7.96%</u>
<u>2017</u>			
Long-term Debt	48.40%	6.25%	3.03%
Common Equity	<u>51.60%</u>	9.43%	<u>4.87%</u>
	<u>100.00%</u>		<u>7.90%</u>
<u>2018</u>			
Long-term Debt	46.33%	6.25%	2.90%
Common Equity	<u>53.67%</u>	10.75%	<u>5.77%</u>
	<u>100.00%</u>		<u>8.67%</u>
<u>2019</u>			
Long-term Debt	46.59%	6.21%	2.89%
Common Equity	<u>53.41%</u>	10.75%	<u>5.74%</u>
	<u>100.00%</u>		<u>8.63%</u>
<u>2020</u>			
Long-term Debt	47.24%	6.16%	2.91%
Common Equity	<u>52.76%</u>	10.75%	<u>5.67%</u>
	<u>100.00%</u>		<u>8.58%</u>
<u>Average 2018-2020</u>			
Long-term Debt	46.72%	6.21%	2.90%
Common Equity	<u>53.28%</u>	10.75%	<u>5.73%</u>
	<u>100.00%</u>		<u>8.63%</u>

SAN JOSE WATER COMPANY
(U-168-W)

WEIGHTED AVERAGE LONG-TERM DEBT
(2015 - 2020)

<u>Long -Term Debt</u>	Par Value	Net Proceeds	Annual Charge	Effective Rate	Weighted Average (Beg+End)/2
Balance 12/31/15	\$300,000,000	\$292,991,593	\$19,277,850	6.58%	
Private Activity Bond 2016	\$70,000,000	\$69,057,295	\$3,356,423	4.86%	6.42%
Balance 12/31/16	\$370,000,000	\$362,048,888	\$22,634,274	6.25%	6.25%
Balance 12/31/17	\$370,000,000	\$362,048,888	\$22,634,274	6.25%	6.25%
Balance 12/31/18	\$370,000,000	\$362,048,888	\$22,634,274	6.25%	6.21%
Issuance of Series M Senior Note	\$80,000,000	\$78,879,000	\$4,530,733	5.74%	6.21%
Balance 12/31/19	\$450,000,000	\$440,927,888	\$27,165,007	6.16%	6.16%
Balance 12/31/20	\$450,000,000	\$440,927,888	\$27,165,007	6.16%	
Average 2018 to 2020	\$471,666,667	\$461,829,870	\$28,672,019	6.21%	6.21%

Schedule 5

SAN JOSE WATER COMPANY
(U-168-W)

INTEREST EXPENSE
(2015 - 2020)

		Balance		Transition	Test Year	Escalation	Escalation
		2015	2016	2017	2018	2019	2020
Long Term Debt:							
Series A	8.58%	\$20,000,000	\$1,716,000	\$1,716,000	\$1,716,000	\$1,716,000	\$1,716,000
Series B	7.37%	\$30,000,000	\$2,211,000	\$2,211,000	\$2,211,000	\$2,211,000	\$2,211,000
Series C	9.45%	\$10,000,000	\$945,000	\$945,000	\$945,000	\$945,000	\$945,000
Series D	7.15%	\$15,000,000	\$1,072,500	\$1,072,500	\$1,072,500	\$1,072,500	\$1,072,500
Series E	6.81%	\$15,000,000	\$1,021,500	\$1,021,500	\$1,021,500	\$1,021,500	\$1,021,500
Series F	7.20%	\$20,000,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000
Series G	5.93%	\$20,000,000	\$1,186,000	\$1,186,000	\$1,186,000	\$1,186,000	\$1,186,000
Series H	5.71%	\$20,000,000	\$1,142,000	\$1,142,000	\$1,142,000	\$1,142,000	\$1,142,000
Series I	5.93%	\$20,000,000	\$1,186,000	\$1,186,000	\$1,186,000	\$1,186,000	\$1,186,000
Series J	6.54%	\$10,000,000	\$654,000	\$654,000	\$654,000	\$654,000	\$654,000
Series K	6.75%	\$20,000,000	\$1,350,000	\$1,350,000	\$1,350,000	\$1,350,000	\$1,350,000
Private Activity Bond	5.10%	\$50,000,000	\$2,550,000	\$2,550,000	\$2,550,000	\$2,550,000	\$2,550,000
Series L	5.14%	\$50,000,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000
Private Activity Bond	4.75%	\$70,000,000	\$2,777,083	\$3,325,000	\$3,325,000	\$3,325,000	\$3,325,000
Series M	5.62%	\$80,000,000	\$0	\$0	\$0	\$2,246,683	\$4,493,367
		\$19,044,000	\$19,321,083	\$22,369,000	\$22,369,000	\$24,615,683	\$26,862,367

Amortization of Bond Expense (from Schedule 6)

	\$233,850	\$236,469	\$265,274	\$265,274	\$283,957	\$302,641
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Total Long Term Interest Expense

	\$19,277,850	\$19,557,552	\$22,634,274	\$22,634,274	\$24,899,641	\$27,165,007
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	\$19,277,850	\$19,557,552	\$22,634,274	\$22,634,274	\$24,899,641	\$27,165,007
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Schedule 5.1**SAN JOSE WATER COMPANY****(U 168 W)****ESTIMATED INTEREST COST OF LONG-TERM DEBT
FOR PROJECTED FINANCINGS****(2015 - 2020)**

Blue Chip Financial

Forecast - March 1, 2017 Issue:

Estimated forecast rate for second Qtr of 2019

30 years Corporate Aaa Bonds

5.30%

Estimate spread to be paid from Corporate Aaa Bonds

0.19%Adjusted Prospective Yield on A Rated Public Utility
Bonds

5.49%

Adjustment to Reflect Bond Rating Differences
of Proxy Group0.08%

Adjusted Prospective Bond Yield

5.57%

Estimated issuance cost based upon a \$80,000,000 issue
with a life of 30 years and costs of \$1,121,0000.05%Estimated cost to San Jose Water Company
for new bond issues in 2016-20195.62%**Future Issuance Cost Calculation**

Amount Borrowed

80,000,000

Brokers fee

800,000 (100 basis point per Senior Note L)

CPUC fee

81,000 (approximately \$1,000 per every million dollar)

Attorney fee

240,000 (0.3% of proceeds - see below)

Estimated total cost

1,121,000

Estimated cost% to principal

1.4%

SAN JOSE WATER COMPANY
(U-168-W)

AMORTIZATION OF BOND EXPENSE
(2015 - 2020)

	Balance 12/31/2016		Transition Test Year					Escalation		
			2015	2016	2017	2018	2019	2020		
Long Term Debt:										
Series A	\$20,000,000	8.580%	\$9,220	\$9,220	\$9,220	\$9,220	\$9,220	\$9,220	\$9,220	\$9,220
Series B	\$30,000,000	7.370%	\$16,794	\$16,794	\$16,794	\$16,794	\$16,794	\$16,794	\$16,794	\$16,794
Series C	\$10,000,000	9.450%	\$6,580	\$6,580	\$6,580	\$6,580	\$6,580	\$6,580	\$6,580	\$6,580
Series D	\$15,000,000	7.150%	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154	\$6,154
Series E	\$15,000,000	6.810%	\$6,951	\$6,951	\$6,951	\$6,951	\$6,951	\$6,951	\$6,951	\$6,951
Series F	\$20,000,000	7.200%	\$3,376	\$3,376	\$3,376	\$3,376	\$3,376	\$3,376	\$3,376	\$3,376
Series G	\$20,000,000	5.930%	\$3,997	\$3,997	\$3,997	\$3,997	\$3,997	\$3,997	\$3,997	\$3,997
Series H	\$20,000,000	5.710%	\$6,610	\$6,610	\$6,610	\$6,610	\$6,610	\$6,610	\$6,610	\$6,610
Series I	\$20,000,000	5.930%	\$4,439	\$4,439	\$4,439	\$4,439	\$4,439	\$4,439	\$4,439	\$4,439
Series J	\$10,000,000	6.540%	\$1,430	\$1,430	\$1,430	\$1,430	\$1,430	\$1,430	\$1,430	\$1,430
Series K	\$20,000,000	6.750%	\$3,108	\$3,108	\$3,108	\$3,108	\$3,108	\$3,108	\$3,108	\$3,108
Private Activity Bond 2010	\$50,000,000	5.100%	\$28,530	\$28,530	\$28,530	\$28,530	\$28,530	\$28,530	\$28,530	\$28,530
Series L	\$50,000,000	5.140%	\$21,128	\$21,128	\$21,128	\$21,128	\$21,128	\$21,128	\$21,128	\$21,128
Private Activity Bond 2016	\$70,000,000	4.750%	\$0	\$2,619	\$31,423	\$31,423	\$31,423	\$31,423	\$31,423	\$31,423
Series M	\$80,000,000	5.617%	\$0	\$0	\$0	\$0	\$0	\$18,683	\$37,367	\$37,367
Amortization			\$118,316	\$120,935	\$149,740	\$149,740	\$149,740	\$168,423	\$187,107	
Amortization of Early Redemption Premium			\$115,534	\$115,534	\$115,534	\$115,534	\$115,534	\$115,534	\$115,534	\$115,534
(to Schedule 5)			\$233,850	\$236,469	\$265,274	\$265,274	\$265,274	\$283,957	\$302,641	

(1) Estimated cost of issuance 20 basis point of loan principal

Schedule 6.1

SAN JOSE WATER COMPANY
(U-168-W)

AMORTIZATION OF BOND EXPENSE-1
(2015 - 2020)

	<u>Principal</u>	<u>Total exp</u>	<u>%</u>	<u>Amortized %</u>	<u>Attorney fee</u>	<u>Attorney fee %</u>
Series A	\$20,000,000	\$ 276,588	1.38%	0.05%	92,148	0.5%
Series B	\$30,000,000	\$ 484,576	1.62%	0.06%	62,374	0.2%
Series C	\$10,000,000	\$ 197,409	1.97%	0.07%	20,791	0.2%
Series D	\$15,000,000	\$ 184,617	1.23%	0.04%	55,461	0.4%
Series E	\$15,000,000	\$ 208,543	1.39%	0.05%	53,403	0.4%
Series F	\$20,000,000	\$ 101,294	0.51%	0.02%	47,315	0.2%
Series G	\$20,000,000	\$ 119,904	0.60%	0.02%	56,372	0.3%
Series H	\$20,000,000	\$ 198,310	0.99%	0.03%	47,716	0.2%
Series I	\$20,000,000	\$ 133,156	0.67%	0.02%	70,394	0.4%
Series J	\$10,000,000	\$ 35,760	0.36%	0.01%	35,760	0.4%
Series K	\$20,000,000	\$ 93,233	0.47%	0.02%	42,233	0.2%
Private Activity Bond 2010	\$50,000,000	\$ 855,908	1.71%	0.06%	162,518	0.3%
Series L	\$50,000,000	\$ 633,834	1.27%	0.04%	45,803	0.1%
Private Activity Bond 2016	\$70,000,000	\$ 942,705	1.35%	0.00%	233,528	0.3%
Series M	\$80,000,000	\$ 1,121,000	1.40%	0.00%	240,000	0.3%
Subtotal	\$450,000,000	\$ 5,586,837		0.03%		0.3%
Series Q-Z Redemption Prem	\$0	\$ 3,485,275		0.00%		0.0%
	\$450,000,000	\$ 9,072,112		0.03%		0.3%

<u>PAB Issuance Costs</u>	<u>Senior Note Issuance Costs</u>
\$ 1,798,613	\$ 3,788,224 (Excludes Premium on Series B Notes)
\$120,000,000	\$330,000,000
1.50%	1.15%

SAN JOSE WATER COMPANY
(U-168-W)

FINANCIAL REQUIREMENTS
ESTIMATED COMMON EQUITY
EARNINGS BASED ON PRIOR YEAR RATIOS
(2016 - 2020)

		Actual	Test Year	Test Year	Test Year	Test Year
		2016	2017	2018	2019	2020
<u>Earnings</u>						
Auth Rate Base (1)	Decision 14-08-006	\$658,981,000	\$715,677,000	\$772,389,960	\$866,446,890	\$931,577,370
Rate of Return	From Schedule 3	7.96%	7.90%	8.67%	8.63%	8.58%
	(2)	\$52,454,888	\$56,538,483	\$66,966,210	\$74,774,367	\$79,929,338

Common Equity

Balance 12/31/2015 (4)		\$357,404,000				
Earnings 2016		\$61,698,000				
Interest & other adjustment		(\$17,075,000)				
Dividends 2016		(\$16,000,000)				
Balance 12/31/2016		<u>\$386,027,000</u>	\$386,027,000			
Earnings 2017			\$56,538,483			
Interest (From Schedule 5)			(\$22,634,274)			
Other adjustment (3)			\$1,234,000			
Dividends 2017 (3)			(\$18,000,000)			
Balance 12/31/17			<u>\$403,165,209</u>	\$403,165,209		
Earnings 2018				\$66,966,210		
Interest (From Schedule 5)				(\$22,634,274)		
Capital infusion (3)				\$25,000,000		
Other adjustment (3)				\$912,000		
Dividends 2018 (3)				(\$19,000,000)		
Balance 12/31/18				<u>\$454,409,145</u>	\$454,409,145	
Earnings 2019					\$74,774,367	
Interest (From Schedule 5)					(\$24,899,641)	
Other adjustment (3)					\$940,000	
Dividends 2019 (3)					(\$19,000,000)	
Balance 12/31/19					<u>\$486,223,871</u>	\$486,223,871
Earnings 2020						\$79,929,338
Interest (From Schedule 5)						(\$27,165,007)
Other adjustment (3)						\$965,000
Dividends 2020 (3)						(\$20,000,000)
Balance 12/31/20						<u>\$519,953,202</u>

SAN JOSE WATER COMPANY
(U-168-W)
Average weighted Capital Calculation
2015-2020

		Weighted Average Amount	Ratio	Effective Rate	ROR
As of 12/31/15					
Long-term Debt	(from Schedule 4)	\$300,000,000	46.25%	6.58%	3.04%
Common Equity		<u>\$348,686,000</u>	<u>53.75%</u>	<u>9.43%</u>	<u>5.07%</u>
		<u>\$648,686,000</u>	<u>100.00%</u>		<u>8.11%</u>
As of 12/31/16:					
Long-term Debt	(from Schedule 4)	\$335,000,000	47.40%	6.42%	3.04%
Common Equity	(from Schedule 7)	<u>\$371,715,500</u>	<u>52.60%</u>	<u>9.43%</u>	<u>4.96%</u>
		<u>\$706,715,500</u>	<u>100.00%</u>		<u>8.00%</u>
Estimated 12/31/17:					
Long-term Debt	(from Schedule 4)	\$370,000,000	48.39%	6.25%	3.02%
Common Equity	(from Schedule 7)	<u>\$394,596,105</u>	<u>51.61%</u>	<u>9.43%</u>	<u>4.87%</u>
		<u>\$764,596,105</u>	<u>100.00%</u>		<u>7.89%</u>
Estimated 12/31/18:					
Long-term Debt	(from Schedule 4)	\$370,000,000	46.32%	6.25%	2.90%
Common Equity	(from Schedule 7)	<u>\$428,787,177</u>	<u>53.68%</u>	<u>10.75%</u>	<u>5.77%</u>
		<u>\$798,787,177</u>	<u>100.00%</u>		<u>8.67%</u>
Estimated 12/31/19:					
Long-term Debt	(from Schedule 4)	\$410,000,000	46.57%	6.21%	2.89%
Common Equity	(from Schedule 7)	<u>\$470,316,508</u>	<u>53.43%</u>	<u>10.75%</u>	<u>5.74%</u>
		<u>\$880,316,508</u>	<u>100.00%</u>		<u>8.63%</u>
Estimated 12/31/20:					
Long-term Debt	(from Schedule 4)	\$450,000,000	47.21%	6.16%	2.91%
Common Equity	(from Schedule 7)	<u>\$503,088,536</u>	<u>52.79%</u>	<u>10.75%</u>	<u>5.68%</u>
		<u>\$953,088,536</u>	<u>100.00%</u>		<u>8.59%</u>
Average 2020-2018					
Long-term Debt		\$410,000,000	46.73%	6.21%	2.90%
Common Equity		<u>\$467,397,407</u>	<u>53.27%</u>	<u>10.75%</u>	<u>5.73%</u>
		<u>\$877,397,407</u>	<u>100.00%</u>		<u>8.63%</u>