MEMORANDUM

TO: **UTILITIES ADVISORY COMMISSION**

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FROM: **UTILITIES DEPARTMENT**

DATE: **March 2, 2016**

SUBJECT: **Staff Recommendation that the Utilities Advisory Commission Recommend that the City Council Adopt: (1) a Resolution Approving the Fiscal Year 2017 Water Utility Financial Plan; and (2) a Resolution Increasing Water Rates by Amending Rate Schedules W-1 (General Residential Water Service), W-2 (Water Service from Fire Hydrants), W-3 (Fire Service Connections), W-4 (Residential Master-Metered and General Non-Residential Water Service), and W-7 (Non-Residential Irrigation Water Service)**

RECOMMENDATION

Staff requests that the Utilities Advisory Commission (UAC) recommend that the Council:

1. Adopt a resolution (Attachment A) approving the fiscal year (FY) 2017 Water Utility Financial Plan (Attachment B); and
2. Adopt a resolution (Attachment C) increasing water rates by amending Rate Schedules W-1 (General Residential Water Service), W-2 (Water Service from Fire Hydrants), W-3 (Fire Service Connections), W-4 (Residential Master-Metered and General Non-Residential Water Service), and W-7 (Non-Residential Irrigation Water Service).

EXECUTIVE SUMMARY

The FY 2017 Water Utility Financial Plan includes projections of the utility's costs and revenues for FY 2017 through FY 2026. Costs are projected to rise substantially for the next several years due primarily to increasing water supply costs. As a result, staff projects the need for a 6% water rate increase on July 1, 2016 and 9% rate increases in FY 2018 and FY 2019. The 6% increase is needed to recover costs due to an expected 7% increase for the cost of water from the San Francisco Public Utilities Commission (SFPUC) as well as increased local operations costs.

Costs are increasing by 24% from FY 2016 to FY 2026 and these increases are mostly due to water supply costs. Current projections are that water supply costs will increase by 7% in FY 2017, but with the recent continuing drought, the trajectory of future water supply cost increases is uncertain. To keep the Operations Reserve healthy while minimizing the impact to

customers, staff proposes spreading the rate increases required to match projected costs over several years. This is possible with transfers to the Operations Reserve: $4 million from the CIP Reserve in FY 2017 and $4.7 million and $1.87 million from the Rate Stabilization Reserve in FY 2016 and FY 2017, respectively. These actions will reduce the Rate Stabilization Reserve to zero by the end of FY 2017.

BACKGROUND

Every year staff presents the UAC with Financial Plans for its Electric, Gas, Water, and Wastewater Collection Utilities and recommends any rate adjustments required to maintain their financial health. These Financial Plans include a comprehensive overview of the utility's operations, both retrospective and prospective, and are intended to be a reference for UAC and Council members as they review the budget and staff's rate recommendations. Each Financial Plan also contains a set of Reserves Management Practices describing the reserves for each utility and the management practices for those reserves.

The UAC reviewed preliminary financial forecasts at its February 3, 2016 meeting. Staff has revised the preliminary projections presented at that meeting.

DISCUSSION

Staff's annual assessment of the financial position of the City's water utility is completed to ensure adequate revenue to fund operations, in compliance with the cost of service requirements set forth in the California Constitution (Proposition 218). This includes making long-term projections of market conditions, the physical condition of the system, and other factors that could affect utility costs, and setting rates adequate to recover these costs. The current rate proposals are also based on the cost of service methodology described in the 2012 *Palo Alto Water Cost of Service & Rate Study*, the 2015 *Study* update and Drought Rate memorandum completed by Raftelis Financial Consultants.

Proposed Actions for FY 2016

This year's Water Utility Financial Plan includes the following proposed actions for FY 2016:

1. Reduce the $5.5 million transfer from the Rate Stabilization Reserve to the Operations Reserve proposed in the FY 2016 Water Financial Plan to $4.7 million.

Proposed Actions for FY 2017

This year's Water Utility Financial Plan also includes the following proposed actions for FY 2017:

1. Transfer $1.87 million from the Rate Stabilization Reserve to the Operations Reserve.
2. Transfer $4 million from the CIP Reserve to the Operations Reserve

These transfers will enable staff to maintain Operations Reserve levels while spreading the required rate increases for the water utility over several years. These proposed actions are described in more detail in the FY 2017 Water Financial Plan (Attachment B).

In addition, staff proposes to adjust water rates to the levels shown in Tables 1 through 4, below, effective July 1, 2016. These changes are projected to increase the system average

water rate by roughly 6%. These rate changes are included in the proposed amended rate schedules in Attachment D.

Table 1: Water Consumption Charges in $/CCF (Current and Proposed)

	Current (9/1/15)	Proposed (7/1/16)	Change	
			$/CCF	%
W-1 (Residential) Volumetric Rates ($/CCF)				
Tier 1 Rates	5.93	6.30	0.37	6%
Tier 2 Rates	8.38	8.82	0.44	5%
W-2 (Construction) Volumetric Rates ($/CCF)				
Uniform Rate	6.92	7.32	0.40	6%
W-4 (Commercial) Volumetric Rates ($/CCF)				
Uniform Rate	6.92	7.32	0.40	6%
W-7 (Irrigation) Volumetric Rates ($/CCF)				
Uniform Rate	8.29	8.72	0.43	5%

Table 2: Current and Proposed Monthly Service Charge

Meter Size	Monthly Service Charge ($/month based on meter size)		Change	
	Current (9/1/15)	Proposed (7/1/16)	$/mo	%
5/8”	$16.03	$16.77	$0.74	5%
3/4”	$21.50	$22.60	$1.10	5%
1”	$32.45	$34.26	$1.81	6%
1 ½”	$59.83	$63.40	$3.57	6%
2”	$92.67	$98.37	$5.70	6%
3”	$196.70	$209.11	$12.41	6%
4”	$350.00	$372.31	$22.31	6%
6”	$716.82	$762.81	$45.99	6%
8”	$1,319.07	$1,403.94	$84.87	6%
10”	$2,085.57	$2,219.92	$134.35	6%
12”	$2,742.56	$2,919.34	$495.89	6%

Table 3: Current and Proposed Monthly Fire Service Charges

Meter Size	Monthly Service Charge ($/month based on meter size)		Change	
	Current (9/1/15)	Proposed (7/1/16)	$/mo	%
2"	$3.43	$3.79	$0.36	10%
4"	$21.22	$23.42	$2.20	10%
6"	$61.63	$68.03	$6.40	10%
8"	$131.34	$144.97	$13.63	10%
10"	$236.20	$260.70	$24.50	10%
12"	$381.52	$421.11	$39.59	10%

Table 4: Drought Surcharges in $/CCF (Current and Proposed)

	Current (9/1/15)	Proposed (7/1/16)	Change	
			$/CCF	%
10%/15% Reduction				
W-1 Residential (Tier 1)	0.19	0.20	$0.01	5%
W-1 Residential (Tier 2)	0.55	0.58	0.03	5%
W-4 (Non-residential and Master Metered Multi-Family)	0.24	0.26	0.02	8%
W-7 (Irrigation)	0.51	0.53	0.02	4%
20% Reduction				
W-1 Residential (Tier 1)	0.39	0.43	0.04	10%
W-1 Residential (Tier 2)	1.14	1.21	0.07	6%
W-4 (Non-residential and Master Metered Multi-Family)	0.49	0.53	0.04	8%
W-7 (Irrigation)	1.18	1.25	0.07	6%
25% Reduction				
W-1 Residential (Tier 1)	0.59	0.64	0.05	8%
W-1 Residential (Tier 2)	1.76	1.85	0.09	5%
W-4 (Non-residential and Master Metered Multi-Family)	0.72	0.77	0.05	7%
W-7 (Irrigation)	1.93	2.02	0.09	5%

Bill Impact of Proposed Rate Changes

Table 5 shows the impact of the proposed July 1, 2016 rate changes on residential bills. The average increase is roughly 6%, but some customers may see variations due to slight changes in the composition of the utility's costs and how that affects the first tier and fixed charges under the cost of service methodology. The bill comparison also includes continued activation of the drought surcharge at the 20% reduction level.

Table 5: Impact of Proposed Rate Changes on Residential Bills

Usage (CCF/month)	Bill under Existing Rates (9/1/15)	Bill under Proposed Rates (7/1/16)	Change	
			$/mo.	%
4	41.31	43.69	2.38	6%
(Winter median) 7	63.47	67.18	3.71	6%
(Annual median) 9	82.51	87.24	4.73	6%
(Summer median) 14	130.11	137.39	7.28	6%
25	234.83	247.72	12.89	5%

Table 6 shows the impact of the proposed July 1, 2016 rate changes on various representative commercial customer bills. As with residents, this comparison includes the 20% drought surcharge level.

Table 6: Impact of Proposed Rate Changes on Commercial Bills

Usage (CCF/month)	Bill under Current Rates (9/1/15)	Bill under Proposed Rates (7/1/16)	Change	
			$/mo.	%
Commercial (W-4) (5/8" meters)				
(Annual median) 12	104.95	110.97	6.02	6%
(Annual average) 64	490.27	519.17	28.90	6%
Irrigation (W-7) (1 ½" meters)				
(Winter median) 9	145	153	8	6%
(Summer median) 37	410	432	22	5%
(Winter average) 56	590	622	32	5%
(Summer average) 199	1,944	2047	103	5%

FY 2017 Financial Plan's Projected Rate Adjustments for the Next Five Fiscal Years

Table 7 shows the projected rate adjustments over the next five years and their impact on the annual median residential water bill.

Table 7: Projected Rate Adjustments, FY 2016 to FY 2020

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Water Utility	6%	9%	9%	6%	2%
Estimated Bill Impact ($/mo)*	$4.73	$7.85	$8.56	$6.22	$2.20
** estimated impact on median residential water bill, which is currently $82.51.*					

The main driver for the increase in the water utility's costs (and therefore rates) over the next several years is the cost of water. Wholesale water costs are projected to rise 7% in FY 2017, but due to the ongoing drought, future increases are uncertain. What is certain is that the SFPUC's costs to operate the Regional Water System are primarily fixed costs, so the water rate is highly dependent on usage by users of the Regional Water System.

The Water Utility may also see a $1 million increase in operating costs for a capital lease for emergency generators for wells and pump stations. Aside from that, operating and CIP costs are projected to rise roughly 2% to 4% annually over that time. The FY 2017 Water Utility Financial Plan assumes the current drought ends in 2017, but based on CPAU's experience, consumption is not anticipated to return to pre-drought levels.

Last year, staff discussed uncertainty in the forecasts of capital costs for the water utility in coming years. Water main replacement costs have risen substantially in recent years, and it is possible higher CIP expenditures will be required in the future. Staff is in the process of reviewing a recently completed master plan for the water distribution system, and expects better information about future main replacement costs when that plan is completed. The review is expected to be completed during 2016.

Water Bill Comparison with Surrounding Cities

Table 8 compares water bills under current rates as of February 1, 2016 for residential customers to those in surrounding communities. CPAU has the highest monthly bills of the group, although bills for smaller water users are less than in some surrounding communities. It is unclear at this time what water rate changes may be implemented in these communities for FY 2017.

Table 8: Residential Monthly Water Bill Comparison

Usage (CCF/month)	Residential monthly bill comparison ($/month)* As of February 2016					
	Palo Alto	Menlo Park	Mountain View	Hayward	Redwood City	Santa Clara
4	41.31	44.11	31.46	28.68	43.69	16.64
(Winter median) 7	63.47	62.25	48.77	48.42	57.13	29.12
(Annual median) 9	82.51	74.36	60.31	61.58	66.77	37.44
(Summer median) 14	130.11	106.12	89.16	96.24	95.46	58.24
25	234.83	176.80	187.23	181.49	182.14	104.00

Based on the FY 2013 BAWSCA survey, the fraction of SFPUC as the source of potable water supply was 100% for Palo Alto, 95% for Menlo Park, 100% for Redwood City, 87% for Mountain View, 10% for Santa Clara and 100% for Hayward.

Changes from Preliminary Financial Forecast

After presenting the preliminary financial forecast to the UAC on February 3, 2016, SFPUC updated its wholesale water rate increase estimate. The wholesale rate is now forecast to increase from $3.75/per hundred cubic feet (CCF) to $4.05/CCF for FY 2017 instead of the previously projected $4.50/CCF. Therefore, a 6% retail rate increase, rather than the 9% increase in the preliminary financial forecast, is proposed to be effective July 1, 2016. However, SFPUC's wholesale water rates for FY 2017 will not be finalized until June 2016.

Changes from Last Year's Financial Forecast

Staff has projected future water rate increases for several years. Table 9 compares current rate projections to those projected in the last two year's Financial Plans. As shown, the FY 2017 rate projections are somewhat lower than projected last year. In the FY 2015 Financial Plan, the drought was not known to be as long or severe as it has been so the rate increase projections are generally lower than current projections.

Table 9: Projected Water Rate Trajectory for FY 2017 to FY 2026

Projection	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Current (FY 2017 Financial Plan)	6%	9%	9%	6%	2%	2%	2%	3%	5%	3%
Last year (FY 2016 Financial Plan)	8%	8%	8%	3%	1%	2%	3%	N/A	N/A	N/A
Two years ago (FY 2015 Financial Plan)	6%	6%	6%	5%	1%	N/A	N/A	N/A	N/A	N/A

NEXT STEPS

The Finance Committee is scheduled to review the FY 2017 Water Financial Plan on April 19, 2016. Assuming the Finance Committee supports staff's recommendation, notification of the rate increases will be sent to customers as required by Article XIIID of the State Constitution (added by Proposition 218). The Financial Plans and rate schedules will then go to the City Council with the FY 2017 budget for adoption, at which time the public hearing required by Article XIIID of the State Constitution will be held.

RESOURCE IMPACT

Normal year sales revenues for the Water Utility are projected to increase by roughly 6% ($1.9 million) as a result of these rate increases. See the attached FY 2017 Water Financial Plan for a more comprehensive overview of projected cost and revenue changes for the next ten years.

POLICY IMPLICATIONS

The proposed water rate adjustments are consistent with Council-adopted Reserve Management Practices that are part of the Financial Plans, and were developed using a cost of service study and methodology consistent with the cost of service requirements of Proposition 218.

ENVIRONMENTAL REVIEW

The UAC's review and recommendation to Council on the FY 2017 Water Financial Plans and rate adjustments does not meet the California Environmental Quality Act's definition of a project, pursuant to Public Resources Code Section 21065, thus no environmental review is required.

ATTACHMENTS

A. Resolution of the Council of the City of Palo Alto Approving the FY 2017 Water Utility Financial Plan
B. Proposed FY 2017 Water Utility Financial Plan
C. Resolution of the Council of the City of Palo Alto Adopting a Water Rate Increase and Amending Rate Schedules W-1, W-2, W-3, W-4, and W-7
D. Amended Rate Schedules W-1, W-2, W-3, W-4, and W-7

PREPARED BY: cc: **ERIC KENISTON,** Acting Rates Manager
REVIEWED BY: **JANE RATCHYE,** Assistant Director, Resource Management

APPROVED BY:

ED SHIKADA
Interim Director of Utilities

Attachment A

* NOT YET APPROVED *
Resolution No. _____
Resolution of the Council of the City of Palo Alto Approving the
FY 2017 Water Utility Financial Plan

R E C I T A L S

A. Each year the City of Palo Alto ("City") regularly assesses the financial position of its utilities with the goal of ensuring adequate revenue to fund operations. This includes making long-term projections of market conditions, the physical condition of the system, and other factors that could affect utility costs, and setting rates adequate to recover these costs. It does this with the goal of providing safe, reliable, and sustainable utility services at competitive rates. The City adopts Financial Plans to summarize these projections.

B. The City uses reserves to protect against contingencies and to manage other aspects of its operations, and regularly assesses the adequacy of these reserves and the management practices governing their operation. The status of utility reserves and their management practices are included in Reserves Management Practices attached to and made part of the Financial Plans.

The Council of the City of Palo Alto does hereby RESOLVE as follows:

SECTION 1. The Council hereby adopts the FY 2017 Water Utility Financial Plan.

SECTION 2. The Council hereby approves the transfer of $4.7 million in FY 2016 from the Rate Stabilization Reserve to the Operations Reserve, as described in the FY 2017 Water Utility Financial Plan approved via this resolution.

SECTION 3. The Council finds that the adoption of this resolution does not meet the California Environmental Quality Act's (CEQA) definition of a project under Public Resources Code Section 21065, and therefore, no environmental assessment is required.

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

_____ _____

* NOT YET APPROVED *

City Clerk

Mayor

APPROVED AS TO FORM:

APPROVED:

_____

Senior Deputy City Attorney

_____

City Manager

_____

Director of Utilities

_____

Director of Administrative Services

ATTACHMENT B

FY 2017 WATER UTILITY FINANCIAL PLAN

FY 2017 TO FY 2026

FY 2017 WATER UTILITY FINANCIAL PLAN

FY 2017 TO FY 2026

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SECTION 1: DEFINITIONS AND ABBREVIATIONS

BAWSCA Bay Area Water Supply and Conservation Agency
CCF The standard unit of measurement for water delivered to water customers, equal to one hundred cubic feet, or roughly 748 gallons.
CIP Capital Improvement Program
CPAU City of Palo Alto Utilities Department
O&M Operations and Maintenance
RFC Raftelis Financial Consultants, Inc.
SFPUC San Francisco Public Utilities Commission
SFWD San Francisco Water Department
UAC Utilities Advisory Commission
WSIP The SFPUC's Water System Improvement Program to seismically strengthen the transmission lines of the Hetch Hetchy regional water system.

SECTION 2: EXECUTIVE SUMMARY AND RECOMMENDATIONS

This document presents a Financial Plan for the City's Water Utility for the next ten years. This Financial Plan provides revenues to cover the costs of operating the utility safely over that time while adequately investing for the future. It also addresses the financial risks facing the utility over the short term and long term, and includes measures to mitigate and manage those risks.

SECTION 2A: OVERVIEW OF FINANCIAL POSITION

By FY 2026, costs for the Water Utility will increase 24% over FY 2016 levels, as shown in Table 1. Most of increase is related to the cost of water supplied by the San Francisco Public Utilities Commission (SFPUC), which is projected to rise 34% in that time due to the issuance of long term debt to finance major seismic improvements to the Hetch Hetchy transmission system. The cost of replacing the water mains in the City's water distribution system has also increased substantially from the low costs seen during the recent recession, but is projected to remain relatively level during the forecast horizon. Staff projects only inflationary increases to most other costs over the forecast period.

Table 1: Expenses for FY 2015 to FY 2026 (Thousand $'s)

Expenses ($000)	FY 2015 (act.)	FY 2016 (est.)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Water Purchases	15,670	17,645	18,899	19,976	21,177	21,259	21,475	21,697	21,915	22,302	23,652	23,426
Operations	15,826	17,442	17,065	17,509	17,960	18,429	18,863	19,276	19,703	20,135	20,578	21,033
Capital Projects	8,580	11,039	10,216	10,012	10,252	10,555	10,867	11,189	11,519	11,860	12,211	12,572
TOTAL	40,077	46,127	46,180	47,498	49,390	50,243	51,205	52,161	53,137	54,297	56,441	57,031

To cover these increases in costs, revenues (and therefore rates) need to increase over the next several years to balance costs and revenues. The rate trajectory shown in Table 2 assumes that

the drought continues through 2017 and that consumption does not return to its pre-drought levels. Table 2 also compares current rate projections to those projected in last year's Financial Plan.

Table 2: Projected Water Rate Trajectory for FY 2017 to FY 2026

Projection	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Current	6%	9%	9%	6%	2%	2%	2%	3%	5%	3%
Last year	8%	8%	8%	3%	1%	2%	3%	N/A	N/A	N/A

The Water Utility has a Rate Stabilization Reserve that can be used to smooth rate increases over several years. This Financial Plan projects that these reserves will be exhausted by the end of FY 2017. The Water Utility also has a Capital Improvement Program (CIP) Reserve that can be used to offset one-time unanticipated capital costs. This Financial Plan assumes that the CIP Reserve will be used for unanticipated capital expenses or returned to the Operations Reserve by the end of FY 2017. At that point the Emergency Water Supply and Storage Project and the Water System Master Plan will have been completed, so capital costs will be known with more certainty. Table 3 shows the projected reserve transfers over the forecast period.

Table 3: Transfers To/(From) Reserves for FY 2016 to FY 2026 ($000)

Reserve	FY 2016	FY 2017	FY 2018 to FY 2026
Capital Improvement	-	(4,000)	-
Rate Stabilization	(4,700)	(1,867)	-
Operations	4,700	5,867	-

SECTION 2B: SUMMARY OF PROPOSED ACTIONS

Staff proposes the following actions for the Water Utility in FY 2016:

1. Transfer $4.7 million from the Rate Stabilization Reserve to the Operations Reserve. See *Section 3D: Proposed Reserve Transfers* for more details.

Staff proposes the following actions for the Water Utility in FY 2017:

1. Increase rates as shown in Section *3B: Current and Proposed Rates*. These changes are projected to increase the system average rate by roughly 6%.
2. Transfer $1.867 million from the Rate Stabilization Reserve to the Operations Reserve. See *Section 3D: Proposed Reserve Transfers* for more details.
3. Transfer $4 million from the CIP Reserve to the Operations Reserve.

SECTION 3: DETAIL OF FY 2017 RATE AND RESERVES PROPOSALS

SECTION 3A: RATE DESIGN

The Water Utility's rates are evaluated and implemented in compliance with the cost of service requirements and procedural rules set forth in the California Constitution under Article 13 (per Proposition 218). Current rates were structured based on staff's assessment of the financial

position of the Water Utility, and updated using the methodology from the March 2012 *Palo Alto Water Cost of Service & Rate Study* by Raftelis Financial Consultants, Inc., as well as Raftelis' 2015 memoranda updating the 2012 Study and analyzing drought rates (Staff Report 2676). Staff plans to review and update this cost of service study in 2 to 3 years, unless any major changes occur to the utility's operations or customer base that would necessitate an earlier study. Before conducting any new cost of service study, staff will review current rates and the scope of the study with the Utilities Advisory Commission (UAC) and Council to determine the City's policy priorities.

SECTION 3B: CURRENT AND PROPOSED RATES

The current rates and surcharges were effective on September 1, 2015. Rates were re-aligned to the results of an updated cost of service study, performed by Raftelis Financial Consultants, Inc. (RFC), which both developed the drought surcharges and reviewed the City's water rate methodology and structure in light of recent court decisions interpreting the state constitution's cost of service requirements. RFC examined and validated both the City's methodology and rate structure as fundamentally sound, recommending only minor adjustments to ensure that peaking costs were equitably allocated to each customer class and residential rate tier.

CPAU has five rate schedules: one for separately metered residential customers (W-1), one for commercial and master-metered multi-family residential customers (W-4), and specific schedules for irrigation-only services (W-7), services to fire sprinkler systems in buildings and private hydrants (W-3), and for service to fire hydrant rental meters used for construction (W-2). All customers pay a monthly service charge, based on the size of their inlet meter. This charge represents meter reading, billing, and other customer service costs, but also the cost of maintaining the capability to deliver a peak flow for that customer corresponding to their meter size. All customers are also charged for each CCF (one hundred cubic feet) of water used. Separately metered residential customers are charged on a tiered basis, with the first 0.2 CCF per day (6 CCF for a 30 day billing period) charged a base price per CCF, and all additional units charged a higher price per CCF. Commercial customers pay a uniform price for each CCF used, and a higher price for separately metered irrigation service.

Table 4 and Table 6 show the current and proposed monthly service charges for all rate schedules. Staff evaluated grouping the smallest meter sizes (5/8", 3/4" and 1" meters) into one charge category, but confirmed that there is a significant variation in actual demand on the water distribution system among customers using each of these water sizes. As such, staff is not recommending a change to the monthly service charge schedule.

Table 5 shows the consumption charges. Table 7 shows the current and proposed drought surcharge levels. The basis for calculating these charges is staff's annual assessment of the water utility's financial position, as well as the cost of service methodology from the 2012 *Palo Alto Water Cost of Service & Rate Study* and 2015 update, prepared by RFC.

Table 4: Current and Proposed Monthly Service Charges

Meter Size	Monthly Service Charge ($/month based on meter size)		Change	
	Current (9/1/15)	Proposed (7/1/16)	$/mo	%
5/8”	$16.03	$16.77	$0.74	5%
3/4”	$21.50	$22.60	$1.10	5%
1”	$32.45	$34.26	$1.81	6%
1 ½”	$59.83	$63.40	$3.57	6%
2”	$92.67	$98.37	$5.70	6%
3”	$196.70	$209.11	$12.41	6%
4”	$350.00	$372.31	$22.31	6%
6”	$716.82	$762.81	$45.99	6%
8”	$1,319.07	$1,403.94	$84.87	6%
10”	$2,085.57	$2,219.92	$134.35	6%
12”	$2,742.56	$2,919.34	$495.89	6%

Table 5: Current and Proposed Water Consumption Charges

	Current (9/1/15)	Proposed (7/1/16)	Change	
			$/CCF	%
W-1 (Residential) Volumetric Rates ($/CCF)				
Tier 1 Rates	5.93	6.30	0.37	6%
Tier 2 Rates	8.38	8.82	0.44	5%
W-2 (Construction) Volumetric Rates ($/CCF)				
Uniform Rate	6.92	7.32	0.40	6%
W-4 (Commercial) Volumetric Rates ($/CCF)				
Uniform Rate	6.92	7.32	0.40	6%
W-7 (Irrigation) Volumetric Rates ($/CCF)				
Uniform Rate	8.29	8.72	0.43	5%

Table 6: Current and Proposed Monthly Fire Service Charges

Meter Size	Monthly Service Charge ($/month based on meter size)		Change	
	Current (9/1/15)	Proposed (7/1/16)	$/mo	%
2”	$3.43	$3.79	$0.36	10%
4”	$21.22	$23.42	$2.20	10%
6”	$61.63	$68.03	$6.40	10%
8”	$131.34	$144.97	$13.63	10%
10”	$236.20	$260.70	$24.50	10%
12”	$381.52	$421.11	$39.59	10%

Table 7: Current and Proposed Drought Surcharge Charges

	Current (9/1/15)	Proposed (7/1/16)	Change	
			$/CCF	%
10%/15% Reduction ($/CCF)				
W-1 Residential (Tier 1)	0.19	0.20	$0.01	5%
W-1 Residential (Tier 2)	0.55	0.58	0.03	5%
W-4 (Non-residential and Master Metered Multi-Family)	0.24	0.26	0.02	8%
W-7 (Irrigation)	0.51	0.53	0.02	4%
20% Reduction ($/CCF)				
W-1 Residential (Tier 1)	0.39	0.43	0.04	10%
W-1 Residential (Tier 2)	1.14	1.21	0.07	6%
W-4 (Non-residential and Master Metered Multi-Family)	0.49	0.53	0.04	8%
W-7 (Irrigation)	1.18	1.25	0.07	6%
25% Reduction ($/CCF)				
W-1 Residential (Tier 1)	0.59	0.64	0.05	8%
W-1 Residential (Tier 2)	1.76	1.85	0.09	5%
W-4 (Non-residential and Master Metered Multi-Family)	0.72	0.77	0.05	7%
W-7 (Irrigation)	1.93	2.02	0.09	5%

SECTION 3C: BILL IMPACT OF PROPOSED RATE CHANGES

Table 8 shows the impact of the proposed July 1, 2016 rate changes on the median residential bill. The average increase is roughly 6%, but some customers may see slightly higher or lower increases due to slight changes in the composition of the utility's costs. Table 8 is presented assuming continued activation of the drought surcharge at the 20% reduction level.

Table 8: Impact of Proposed Water Rate Changes on Residential Bills

Usage (CCF/month)	Bill under Current Rates (9/15/15)	Bill under Proposed Rates (7/1/16)	Change	
			$/mo.	%
4	$ 41.31	$ 43.69	$ 2.38	6%
(Winter median) 7	63.47	67.18	3.71	6%
(Annual median) 9	82.51	87.24	4.73	6%
(Summer median) 14	130.11	137.39	7.28	6%
25	234.83	247.72	12.89	5%

Table 9 shows the impact of the proposed July 1, 2016 rate changes on various representative commercial customer bills. This comparison includes continuation of the drought surcharge at the 20% reduction level.

Table 9: Impact of Proposed Water Rate Changes on Commercial Bills

Usage (CCF/month)	Bill under Current Rates (9/15/15)	Bill under Proposed Rates (7/1/16)	Change	
			$/mo.	%
Commercial (W-4) (5/8" meters)				
(Annual median) 12	$ 104.95	110.97	6.02	6%
(Annual average) 64	490.27	519.17	28.90	6%
Irrigation (W-7) (1 ½" meters)				
(Winter median) 9	145	153	8	6%
(Summer median) 37	410	432	22	5%
(Winter average) 56	590	622	32	5%
(Summer average) 199	1,944	2,047	103	5%

SECTION 3D: PROPOSED RESERVE TRANSFERS

In the FY 2016 Financial Plan, several transfers between reserves were discussed for FY 2016. CIP related funds were transferred out of the Reappropriations Replacement into the CIP Reserve, and $5.5 million was proposed to be transferred from the Rate Stabilization Reserve into the Operations Reserve.

Due to the long running drought in California, and as lower expenses in FY 2015 resulted in higher ending reserve balances than initially projected, staff recommends reducing the $5.5 million transfer from the Rate Stabilization Reserve in FY 2016 to $4.7 million, and proposes transferring $1.87 million in FY 2017. This transfer will exhaust the Rate Stabilization Reserve, as planned for and discussed in *Section 4E: Reserves Structure*, and is included in the financial projections in this Financial Plan. It will enable CPAU to maintain adequate Operations Reserve levels while moderating the pace of increase in water rates.

A proposed $4 million transfer from the CIP Reserve to the Operations Reserve was also discussed in the FY 2016 Financial Plan. This transfer will help fund the Operations Reserve, as well as bring the CIP Reserve closer to its target reserve level. The impact of these transfers on reserves levels can be seen in *Section 4E: Reserves Structure* and *Appendix A: Water Utility Financial Forecast Detail*.

SECTION 4: UTILITY OVERVIEW

This section provides an overview of the utility and its operations. It is intended as general background information and to help readers better understand the forecasts in *Section 5: Utility Financial Projections* and *Section 6: Details and Assumptions*.

SECTION 4A: WATER UTILITY HISTORY

The Water Utility was established on May 9, 1896, two years after the city was incorporated. Voters of the 750 person community approved a $40,000 bond to buy local, private water companies who operated one or more shallow wells to serve the nearby residents. The city grew and the well system expanded until nine wells were in operation in 1932. Palo Alto began

receiving water from the San Francisco Water Department (SFWD) in 1937 to supplement these sources.

A 1950 engineering report noted, "the capricious alternation of well waters and the San Francisco Water Department water…has made satisfactory service to the average customer practically impossible". By 1950, only eight wells were still in operation. Despite this, groundwater production increased in the 1950's leading to lower groundwater tables and water quality concerns. In 1962, a survey of water softening costs to CPAU customers determined that CPAU should purchase 100% of its water supply needs from the SFWD. A 20-year contract was signed with San Francisco, and CPAU's wells were placed in standby condition. The SFWD later became known as the SFPUC. Since 1962 (except for some very short periods) CPAU's entire supply of potable water has come from the SFPUC.

As the city grew, so did the number of mains in the water system. The system of mains expanded along with the town, while existing sections of the system continued to age. In the mid-1980s, the number of breaks in cast iron mains installed during the 1940s and earlier started to accelerate. In FY 1994, to combat deterioration of older sections of the system, an analysis of cost effective system improvements was performed and the rate of main replacement was increased from one mile per year to three. A plan to replace 75 miles of deficient mains within 25 years was begun.

In 1999, a study of system reliability concluded that major upgrades were needed to the distribution system to provide adequate water supply during a natural disaster. This ultimately resulted in the $40 million Emergency Water Supply and Storage Project, nearly completed, which involved a new underground reservoir in El Camino Park, the siting and construction of several emergency supply wells, and the upgrade of several existing wells and the Mayfield pump station.

At the same time that CPAU was evaluating the reliability of its own system, the SFPUC, in consultation with BAWSCA members, was evaluating the reliability of the Hetch Hetchy water system, which crosses two major fault lines between the Sierras and the Bay Area. That evaluation concluded that major upgrades to the system were required. This planning process culminated in the SFPUC's $4.8 billion Water System Improvement Project (WSIP), which is ongoing.

SECTION 4B: CUSTOMER BASE

CPAU's Water Utility provides water service to the residents and businesses of Palo Alto, plus a handful of residential customers not in Palo Alto (Los Altos Hills, primarily). Nearly 20,300 customers are connected to the water system, approximately 16,500 (81%) of which are separately metered residential customers and 3,800 (19%) of which are commercial, master-metered residential, irrigation and fire service customers.

Judging from seasonal consumption patterns, between 35% and 50% of Palo Alto's water is used for irrigation, and that consumption is heavily weather dependent. It also varies significantly by season. As a result of these two factors, there is significant variability in the amount of water that is demanded from the system month to month and year to year.

SECTION 4C: DISTRIBUTION SYSTEM

To deliver water to its customers, the utility owns roughly 233 miles of mains (which transport the water from the SFPUC meters at the city's borders to the customer's service laterals and meters), eight wells (to be used in emergencies), five water storage reservoirs (also for emergency purposes) and several tanks used to moderate pressure and deal with peaks in flow and demand (due to fire suppression, heavy usage times, etc.). These represent the vast majority of the infrastructure used to distribute water in Palo Alto.

SECTION 4D: COST STRUCTURE AND REVENUE SOURCES

As shown in Figure 1, water purchase costs accounted for roughly 39% of the Water Utility's costs in FY 2015. Operational costs represented roughly 40%, and capital investment was responsible for the remaining 21%. Water purchase costs are projected to rise to roughly 41% of costs by FY 2026.

Figure 1: Cost Structure (FY 2015)

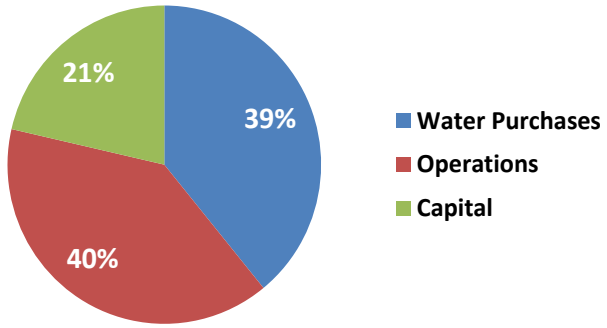
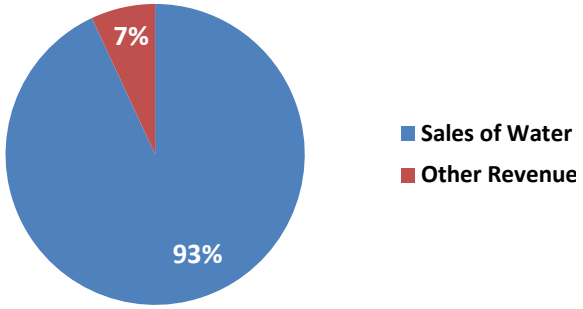


Figure 2: Revenue Structure (FY 2015)



The Water Utility receives 93% of its revenue from sales of water and the remainder from capacity and connection fees, interest on reserves, and other sources. As rates increase over the next several years, the percentage of revenue from sales of water is expected to increase as well. *Appendix A: Water Utility Financial Forecast Detail* shows more detail on the utility's cost and revenue structures. Roughly 15% of the utility's revenues come from fixed service charges, though most of its costs are fixed. This is typical for California water utilities, and conforms to the Best Management Practices (BMPs) of the California Urban Water Conservation Council (CUWCC), a statewide conservation council of environmental groups, state agencies, and water utilities to which the City is a signatory. One of CUWCC's BMPs is that a utility's revenue from fixed service charges constitutes at most 30% of the utility's total revenue from all charges[1].

[1] See http://www.cuwcc.org/Resources/Memorandum-of-Understanding/Exhibit-1-BMP-Definitions-Schedules-and-Requirements/BMP-1-Utility-Operations-Programs

SECTION 4E: RESERVES STRUCTURE

CPAU maintains six reserves for its Water Utility to manage various types of contingencies. These are summarized below, but see *Appendix C: Water Utility Reserves Management Practices* for more detailed definitions and guidelines for reserve management:

- **Reserve for Commitments:** A reserve equal to the utility's outstanding contract liabilities for the current fiscal year. Most City funds, including the General Fund, have a Commitments Reserve.
- **Reserve for Reappropriations:** A reserve for funds dedicated to projects reappropriated by the City Council, nearly all of which are capital projects. Most City funds, including the General Fund, have a Reappropriations Reserve.
- **Capital Improvement Program (CIP) Reserve:** The CIP reserve can be used to accumulate funds for future expenditure on CIP projects and is anticipated to be empty unless a major one-time CIP expenditure is expected in future years. This CIP can also act as a contingency reserve for the CIP. This type of reserve is used in other utility funds (Electric, Gas, and Wastewater Collection) as well.
- **Rate Stabilization Reserve:** This reserve is intended to be empty unless one or more large rate increases are anticipated in the forecast period. In that case, funds can be accumulated to spread the impact of those future rate increases across multiple years. This type of reserve is used in other utility funds (Electric, Gas, and Wastewater Collection) as well.
- **Operations Reserve:** This is the primary contingency reserve for the Water Utility, and is used to manage yearly variances from budget for operational water supply costs. This type of reserve is used in other utility funds (Electric, Gas, and Wastewater Collection) as well.
- **Unassigned Reserve:** This reserve is for any funds not assigned to the other reserves and is normally empty.

SECTION 4F: COMPETITIVENESS

Table 10 shows the current water bills for residential customers compared to what they would be under surrounding communities' rate schedules. CPAU has the highest monthly bills of the group, although bills for smaller water users are less than in some surrounding communities.

Table 10: Residential Monthly Water Bill Comparison

Usage (CCF/month)	Residential monthly bill comparison ($/month)* As of February 2016					
	Palo Alto	Menlo Park	Mountain View	Hayward	Redwood City	Santa Clara
4	41.31	44.11	31.46	28.68	43.69	16.64
(Winter median) 7	63.47	62.25	48.77	48.42	57.13	29.12
(Annual median) 9	82.51	74.36	60.31	61.58	66.77	37.44
(Summer median) 14	130.11	106.12	89.16	96.24	95.46	58.24
25	234.83	176.80	187.23	181.49	182.14	104.00

* All comparisons use the 5/8" meter size.

SECTION 5: UTILITY FINANCIAL PROJECTIONS

SECTION 5A: LOAD FORECAST

Figure 3 shows 40 years of water consumption history. Average water use has trended downward over time even as Palo Alto's population has grown. Significant water use reductions over the 40-year history were in response to requests to reduce water use in the 1976-77 and 1988-92 drought periods. During these periods, customers invested in efficient equipment and modified behavior to achieve the water reduction goals. More recently, water sales decreased substantially during the 2007-2009 recession and during the current drought. Water use is down by similar amounts among both commercial and residential customers. Both summertime and wintertime use have decreased for all customer classes.

Figure 3: Historical Water Consumption

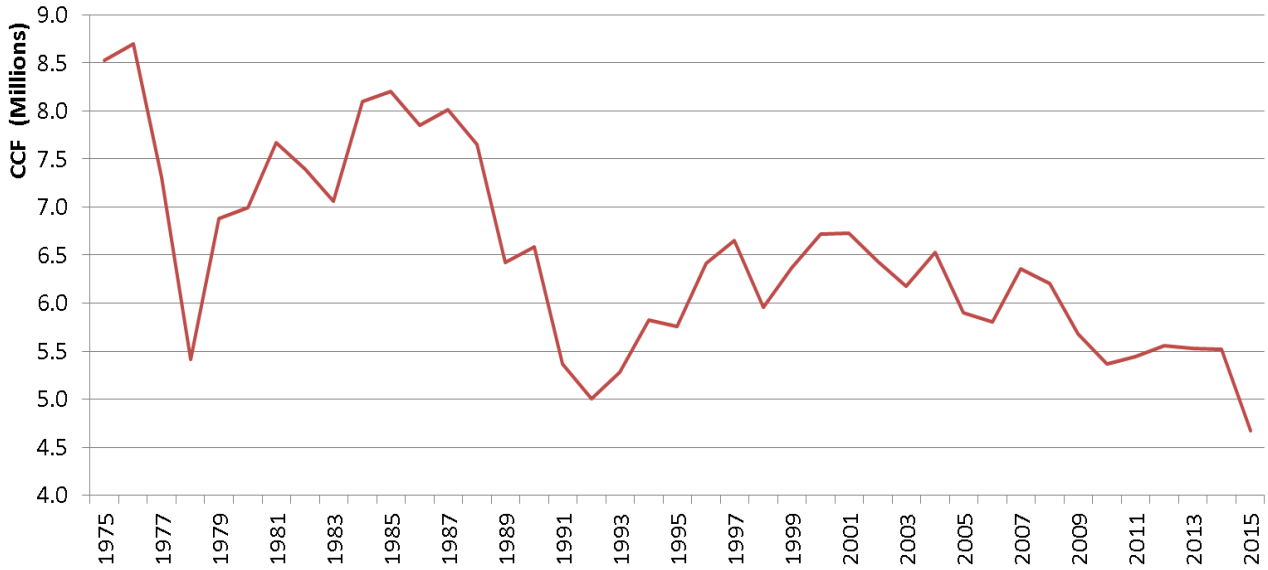


Figure 4 shows the forecast of water consumption through FY 2026, as denoted by the dotted line.

Figure 4: Forecast Water Consumption

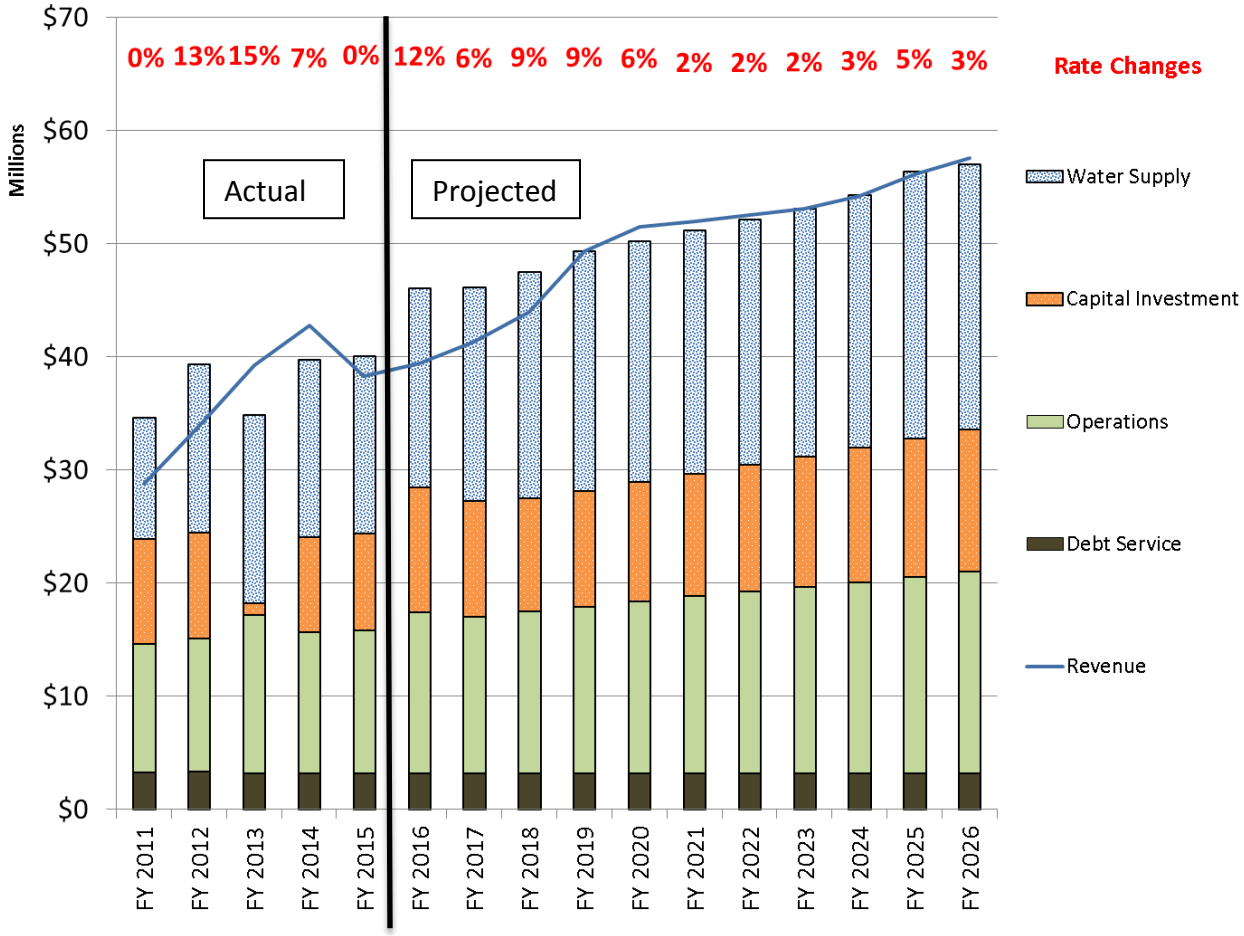
Palo Alto is currently experiencing drought conditions with State mandated 24% water use restrictions in effect. The current forecast assumes current conditions continue through FY 2017, with the drought easing in spring of 2017. It also assumes consumption only returns to 50% of its pre-drought levels, which is consistent with patterns experienced in prior droughts.

SECTION 5B: FY 2011 TO FY 2015 COST AND REVENUE TRENDS

Figure 5 and the tables in *Appendix A: Water Utility Financial Forecast Detail* show how costs have changed during the last five years as well as how they are projected to change over the next decade.

The annual expenses for the water utility rose substantially between 2011 and 2015. The increases were primarily related to water purchase costs, which increased 47% from $10.7 million in FY 2011 to $15.7 million in FY 2014. A more in-depth discussion of water purchase costs will be found in *Section 6A: Water Purchase Costs*. Operations cost increased by about 3% annually, while CIP costs stayed relatively flat, except in FY 2013 when there was a hold on new CIP spending to permit completion of a backlog of projects. This budgetary hold allowed for backlogged water main replacement projects to be started, which consumed surplus capital reserves.

Figure 5: Water Utility Expenses, Revenues, and Rate Changes:
Actual Costs through FY 2015 and Projections through FY 2026



SECTION 5C: FY 2015 RESULTS

In early 2014, when proposing rate adjustments to be effective on July 1, 2014, staff forecast the need for a 4% rate increase. However, higher sales in FY 2014, and projected increased sales in FY 2015 increased reserves such that no rate change was needed for FY 2015. Forecast revenues for FY 2015 were actually $41.2 million instead of the projected revenues of $36.4 million. The largest reason for this was a return of funds related to a return of CIP funds. Connection and capacity fees were, and have continued to be, higher than forecast. Actual expenses for FY 2015 were $40.1 million compared to the projected expenses of $38.7 million. Table 11 summarizes the variances from forecast.

Table 11: FY 2015, Actual Results vs. 2014 Forecast

	Net Cost/ (Benefit)	Type of change
Return of capital project funds	($2,667,000)	Revenue increase
Connection and capacity fees higher than forecast	($1,043,000)	Revenue increase
Water supply costs lower than expected	(700,000)	Cost savings
Other revenues (interest income, etc.) were higher than forecasted	($1,152,000)	Revenue increase
Operations costs lower than expected	(1,300,000)	Cost savings
Capital project costs higher than projected	3,500,000	Cost increase
Net Cost / (Benefit) of Variances	**($3,362,000)**	

SECTION 5D: FY 2016 PROJECTIONS

Several factors have contributed to changes between last year's forecast and this year's projections. Most notably, the ongoing drought has reduced projected FY 2016 sales by around 12%. The activation of a drought rate surcharge in September 2015, however, means that FY 2016 revenues are projected to be only 4.6% lower than forecast. On the cost side, reduced purchases and lower than forecast wholesale supply rates from the SFPUC are expected to result in supply cost decreases of 13.7% for FY 2016. Notable are projected CIP cost increases of $2.3 million, or 26%, mainly due to general cost increases and completing some projects. Table 12 summarizes the changes from last year's forecast.

Table 12: FY 2016 Change in Projected Results, 2016 Forecast vs 2017 Forecast

	Net Cost/ (Benefit)	Type of change
Lower purchase costs	($2,809,000)	Cost savings
Higher misc. revenues (interest income, fees)	($111,000)	Revenue increase
Lower sales revenue	$2,039,000	Revenue decrease
Capital project costs higher than projected	$2,315,000	Cost increase
Higher Operations budgets	$163,000	Cost increase
Net Cost / (Benefit) of Variances	**$1,507,000**	

SECTION 5E: FY 2017 – FY 2026 PROJECTIONS

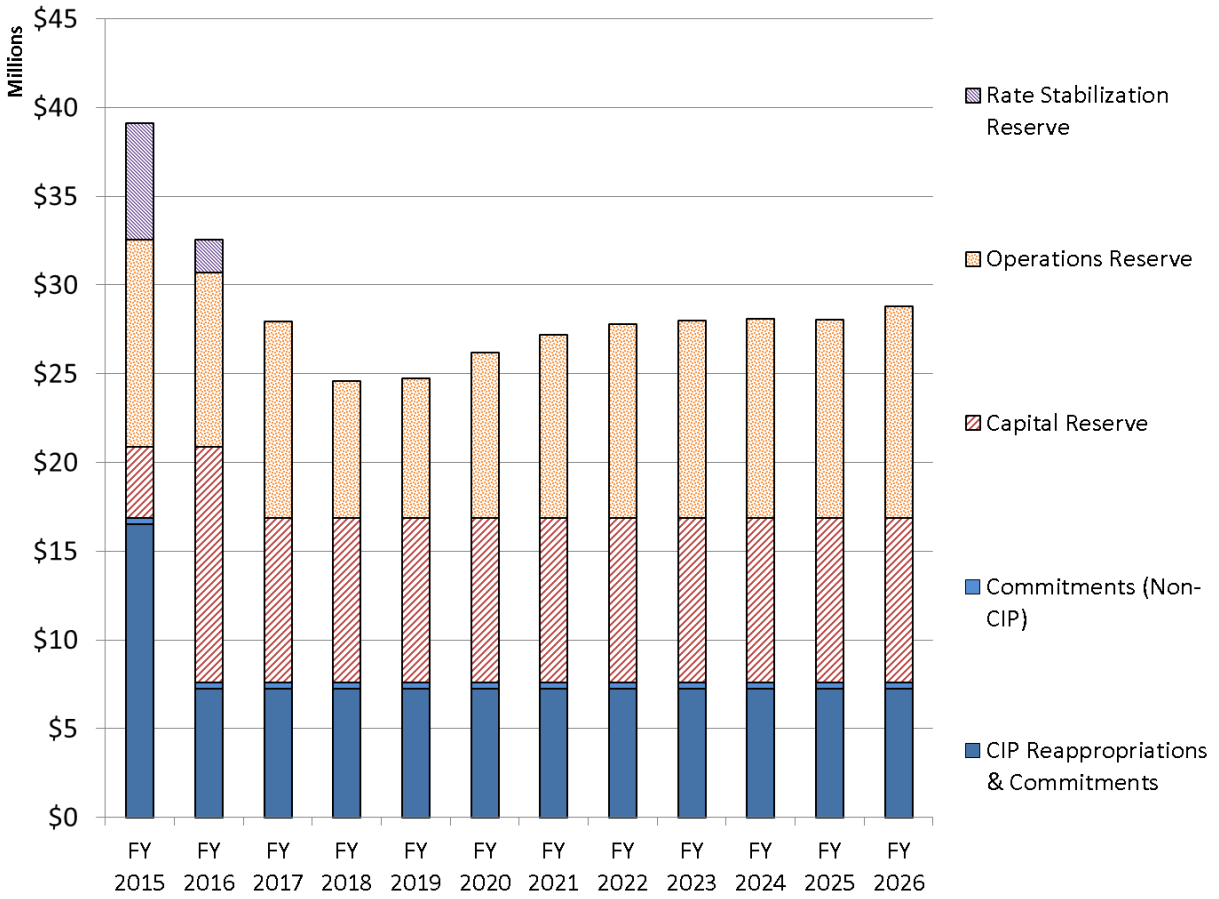
As can be seen in Figure 5 above, costs for the Water Utility are not projected to change significantly between FY 2016 and FY 2017. However, as discussed earlier, water supply costs are the main reason for the cost increases. Water supply costs are projected to increase by 7% in FY 2017 and grow steadily over the coming years. Operations costs include will increase by $1 million in FY 2017 for emergency generator leasing and maintenance, but will otherwise roughly match inflation through the forecast period. Capital investment costs are also expected to increase at the same rate of inflation used in the City's long-term financial plans (2.5 to 3%/year), though there is still uncertainty with regard to the utility's future costs for main replacement. See *Section 6: Details and Assumptions* for more detail on the costs that make up these projections, as well as the various assumptions underlying the projections.

Revenues are below expenses and will require annual rate increases between 6% and 9% through FY 2020 to keep up with these cost increases even with the use of the Rate Stabilization Reserve to spread the increases over multiple years. Costs have already increased substantially over the last few years, and revenues have not kept pace. Sales revenues were adequate in FY 2014 due to lower than average CIP expenditures in that year, but starting in FY 2015 deficits are forecast. To help close this gap, revenues were increased by 12% in FY 2016.

Reserves trends based on these revenue projections are shown in Figure 6 below. The Rate Stabilization Reserve is projected to have a zero balance by the end of FY 2017, and the CIP Reserve is projected to decrease by $4 million by the end of FY 2017. Assuming these increases in revenue, the Operations Reserve, the main contingency reserve, is expected to remain above the minimum reserve level and will be adequate to meet all identified risks, as discussed in *Section 5F: Risk Assessment and Reserves Adequacy*.

These projections assume that drought restrictions end in FY 2017, and that the request for water usage reductions remains at 24%. If the drought worsens or continues longer than projected, the level of the drought surcharge currently in place may need to be reviewed. The forecast also assumes that water main replacement project costs do not increase by more than inflation. This is a major uncertainty as staff awaits the results of the Water Master Plan study to determine the advisable water main replacement strategy.

Figure 6: Water Utility Reserves
Actual Reserve Levels for FY 2015 and Projections through FY 2026



SECTION 5F: RISK ASSESSMENT AND RESERVES ADEQUACY

The Water Utility currently has one contingency reserve, the Operations Reserve, and this Financial Plan maintains reserves within the approved reserve maximum and minimum guidelines throughout the forecast period, as shown in Figure 7. Reserve levels also exceed the short term risk assessment for the utility. Note that while the Operations Reserve is above the target level in FY 2017, it falls to below the target (but above the minimum) in FY 2018 through FY 2020.

Figure 7: Operations Reserve Adequacy

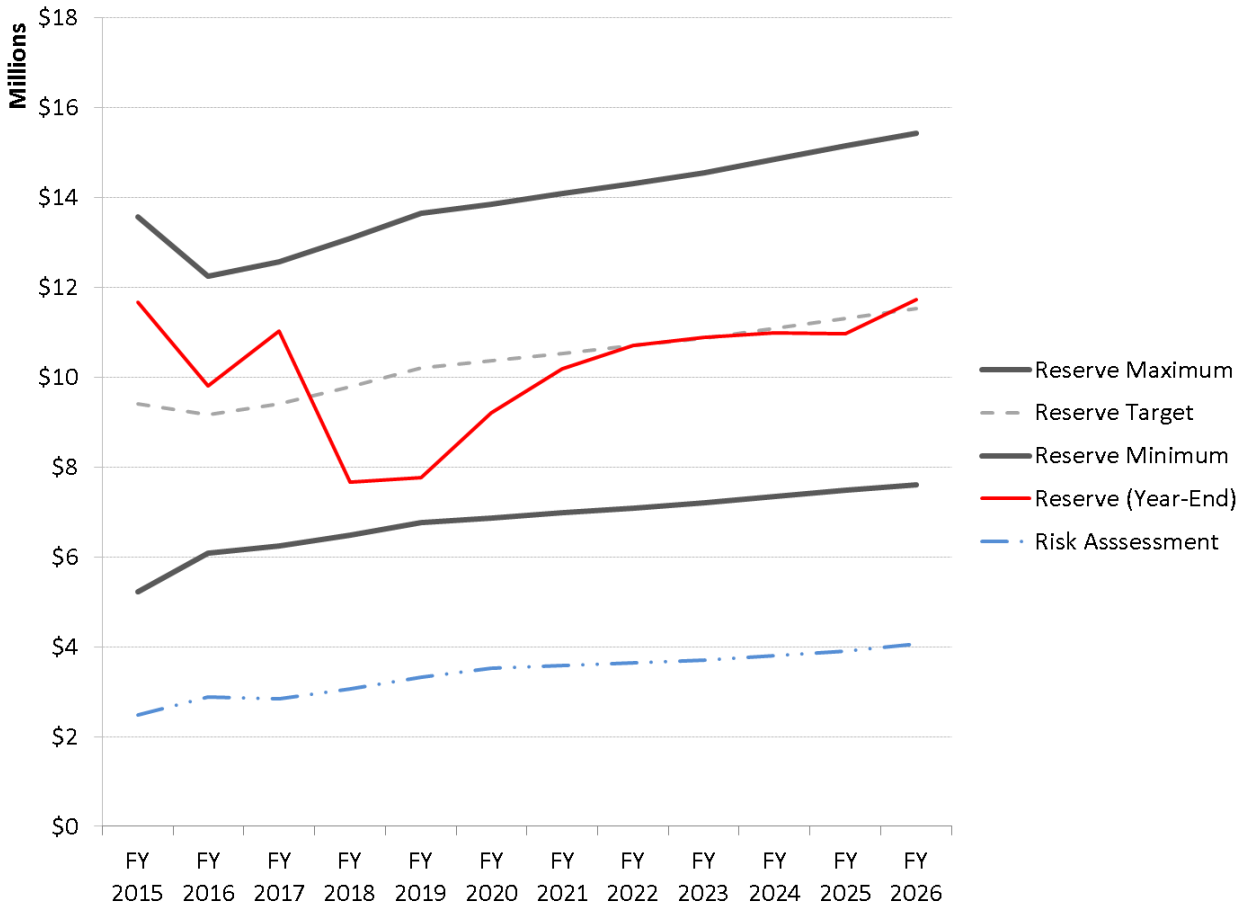


Table 13 summarizes the risk assessment calculation for the Water Utility through FY 2021. The same methodology is used for FY 2022 through FY 2026 as well. The risk assessment includes the revenue shortfall that could accrue due to:

1. Lower than forecasted sales revenue; and
2. An increase of 10% of planned system improvement CIP expenditures for the budget year.

Table 13: Water Risk Assessment ($000)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total non-commodity revenue	$18,406	$20,744	$23,233	$24,976	$25,226
Max. revenue variance, previous ten years	13%	13%	13%	13%	13%
Risk of revenue loss	$1,819	$2,050	$2,296	$2,468	$2,492
CIP Budget	$10,216	$10,012	$10,252	$10,555	$10,867
CIP Contingency @10%	$1,022	$1,001	$1,025	$1,056	$1,087
Total Risk Assessment value	$2,840	$3,051	$3,321	$3,523	$3,579

SECTION 5G: ALTERNATE SCENARIOS

At the UAC's February 2016 meeting, it was suggested that staff prepare two alternate scenarios for rate increases. The first ("Target") scenario keeps the Operations Reserve at or near the Target level throughout the forecast period as shown in Figure 8 below. The second ("Minimum") has no rate change in FY 2017 and lets the Operations Reserve stay at minimum for five years as shown in Figure 9 below. Both options as well as the proposed rate adjustments are shown in Table 14.

Table 14: Projected Water Rate Trajectory for FY 2017 to FY 2026

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Proposed	6%	9%	9%	6%	2%	2%	2%	3%	5%	3%
Target	3%	20%	3%	2%	3%	3%	2%	4%	2%	4%
Minimum	0%	18%	7%	3%	3%	4%	3%	4%	3%	4%

The Target scenario requires a 3% rate increase (smaller than the proposed 6% increase) in FY 2017, but requires a very large rate increase (20%) in FY 2018 to make up for another year with a significant deficit with revenues not covering costs. The level of the Operations Reserve in the target scenario is shown in Figure 8 below.

The Minimum scenario also requires a significant rate increase (18%) in FY 2018 if no rate change is implemented in FY 2017 with a large (7%) rate increase required for FY 2019. The level of the Operations Reserve in the target scenario is shown in Figure 9 below.

Staff recommends a 6% water rate increase in FY 2017 to moderate the rate increases that are projected in FY 2018 while keeping the Water Operations Reserve at healthy levels.

Figure 8: Operations Reserve at Target Level

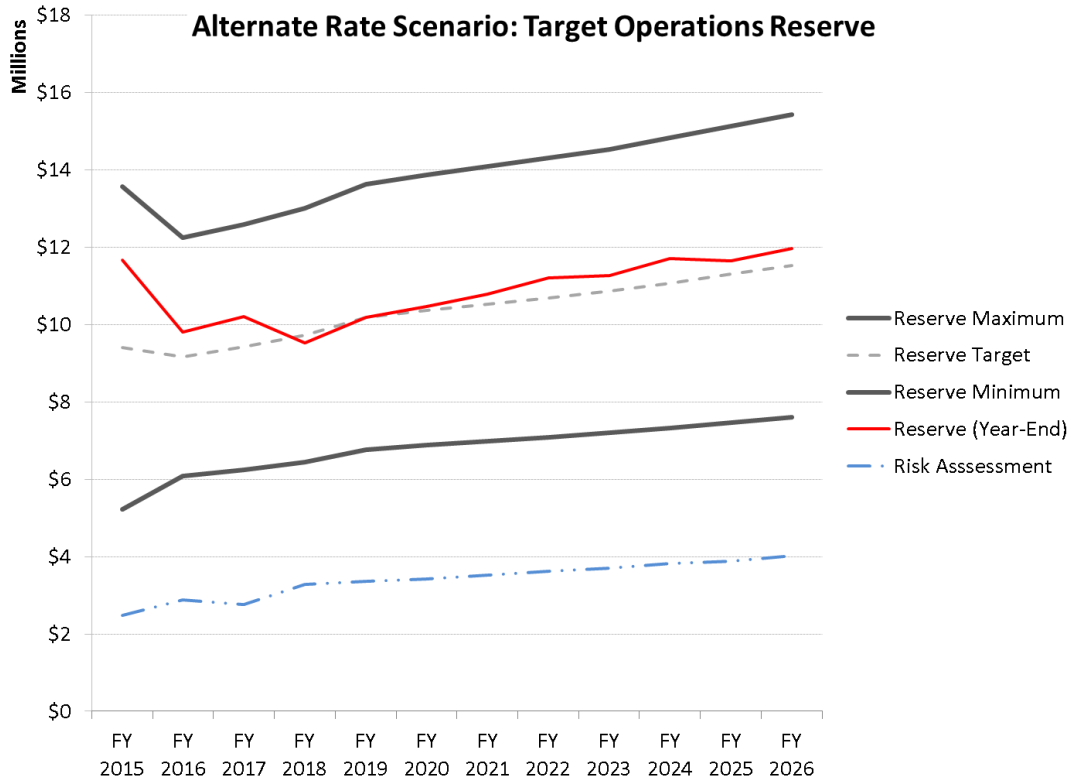
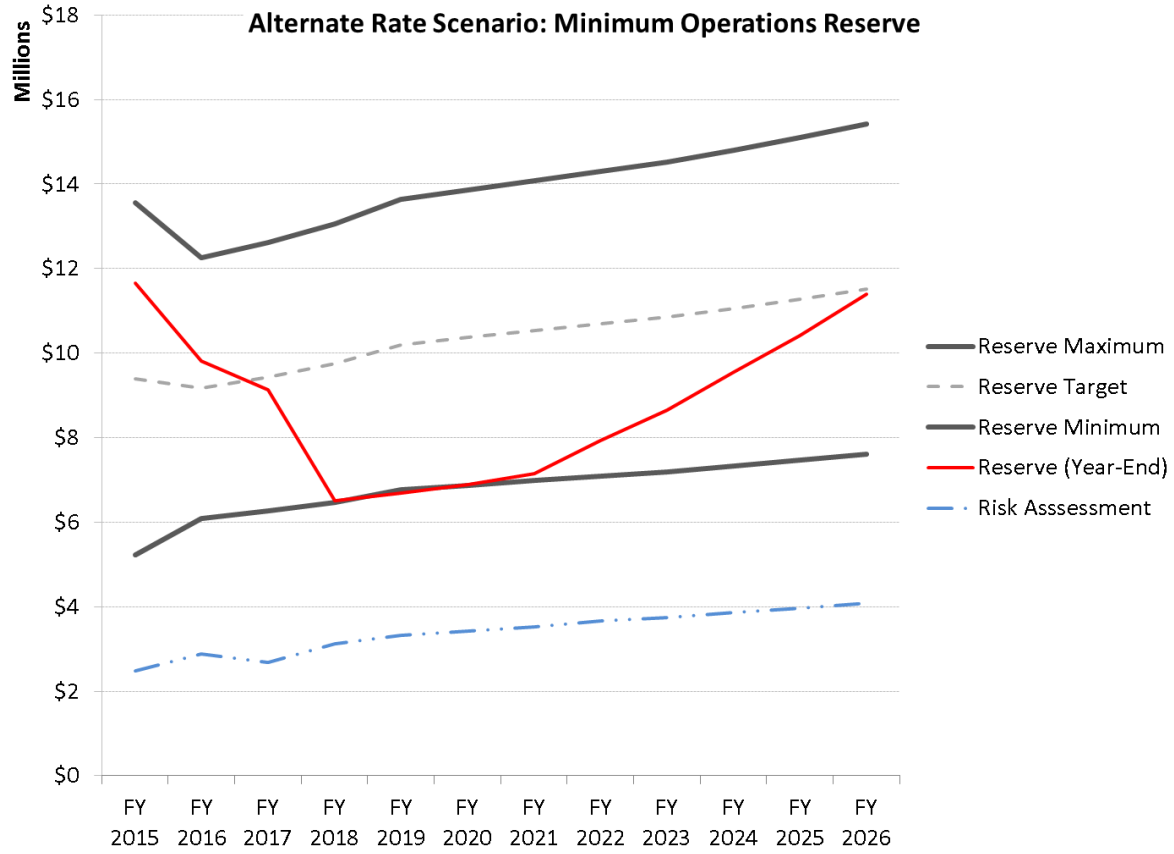


Figure 9: Operations Reserve at Minimum for FY 2018 through FY 2021



SECTION 5H: LONG-TERM OUTLOOK

CPAU has put its Water Utility on strong footing by investing in its distribution system infrastructure and emergency water facilities over the last 20 years. The Water System Master Plan, currently under review, will give CPAU a better picture of the long-term outlook for its infrastructure and will result in a plan for an appropriate schedule for infrastructure replacement and upgrades. In addition, CPAU's water supplier, the SFPUC, has replaced and seismically strengthened its water transmission infrastructure, which will benefit Palo Alto and all Hetch Hetchy customers over the long term.

The opportunities for CPAU's Water Utility over the long term may be in alternative water supplies such as recycled water, groundwater, and water from the Santa Clara Valley Water District. These alternatives have been analyzed in the past, and will be analyzed again in an upcoming update to the Water Integrated Resource Plan. Some of these alternatives may provide cost savings or increased drought protection.

Climate change may begin to present challenges for the Water Utility over the next 20 to 40 years. Availability of water from SFPUC's Regional Water System may change with changing seasonal precipitation patterns. Water consumption patterns may change. Consumption could increase due to drier weather or decrease as customers become even more focused on water conservation. Droughts may become more frequent. The risk of wildfire in the foothills could increase, possibly threatening utility infrastructure or placing greater demands on it. Sea level rise could result in greater exposure of utility infrastructure to saltwater intrusion or the need to protect infrastructure from inundation, possibly resulting in higher maintenance and replacement costs. It could also affect the groundwater aquifer that the utility relies on in emergencies. Any of these could result in increases to the costs of operating the Water Utility. As part of the Sustainability/Climate Action Plan, CPAU is currently working on a Climate Change Adaptation Roadmap that will begin to assess some of these risks.

SECTION 6: DETAILS AND ASSUMPTIONS

SECTION 6A: WATER PURCHASE COSTS

CPAU purchases all of the potable water supplies from the SFPUC, which owns and operates the Hetch Hetchy Regional Water System. CPAU is one of several agencies that purchase water from the SFPUC, all of whom are members of the Bay Area Water Supply and Conservation Agency (BAWSCA). Palo Alto uses roughly 7% of the water delivered by the SFPUC to BAWSCA member agencies.

The Hetch Hetchy Regional Water System system begins with a system of reservoirs and tunnels in the high Sierra in Yosemite County and is transported by a gravity-fed pipeline to the Bay Area. Currently, the SFPUC is in the midst of a $4.8 billion bond-financed capital improvement program (the Water System Improvement Program, or WSIP) to seismically retrofit the facilities that transport water to the Bay Area. This has resulted in large increases in the annual debt service costs assigned to wholesale customers like Palo Alto. The wholesale customer debt service share of the WSIP is increasing from $53 million in FY 2010 to over $200

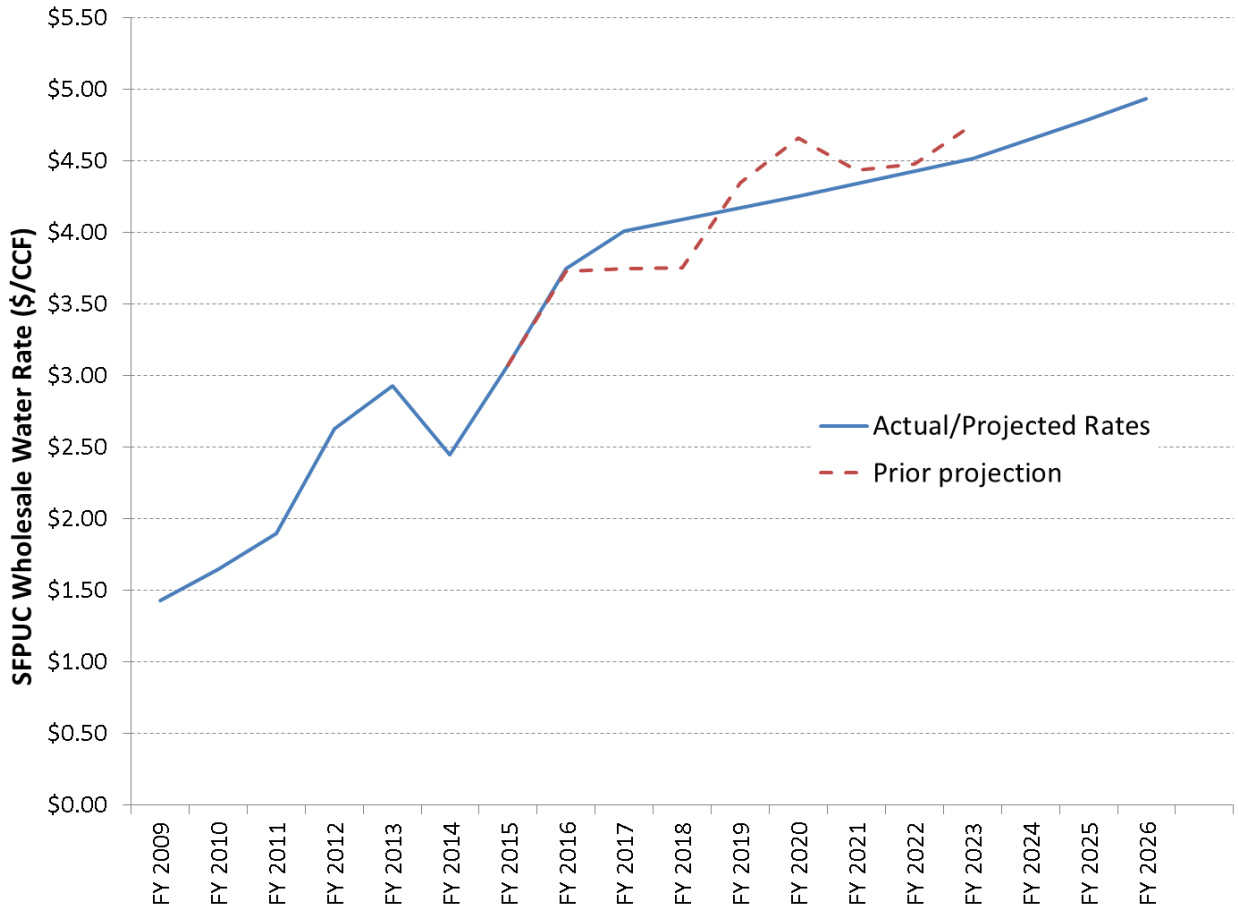
million in FY 2020. As a result, the SFPUC's wholesale water rate has already increased from $1.43 per CCF in FY 2009 to $3.75 per CCF in FY 2016, and is forecasted to increase to over $5.00 per CCF by FY 2025. Figure 10 shows the SFPUC's actual wholesale water rate since FY 2009 and a projection through FY 2026. Note that the wholesale water rate decreased in FY 2014, but the apparent rate decrease is due to a part of the debt being directly paid by the BAWSCA agencies. This cost is paid in addition to the wholesale water rate and add about $0.35 to $0.45 per CCF to the wholesale rate.

The SFPUC's water rate projections show a less steeply increasing rate trajectory after all of the debt for the WSIP has been issued. Parts of SFPUC's system not included in the WSIP also may need rehabilitation. Some of these projects are already included in the SFPUC's rate projections, but the SFPUC is conducting condition assessments of other "up-country" facilities, located in the Sierras in the coming years. If the these assessments identify other facilities that need replacement, it may result in additional rate increases beyond FY 2020 as new debt is issued to finance the projects.

In January 2016, the SFPUC provided a range for FY 2017 wholesale water rates of between $4 and $5 per CCF. In February, the SFPUC updated its estimate for FY 2017 to $4.05/CCF, but there is much uncertainty surrounding the length of the drought and water usage by the BAWSCA agencies. Since the State has mandated water use reductions for most BAWSCA agencies by 20% or more, SFPUC's rates will invariably need to increase since its costs are almost entirely fixed with no relation to the quantity of water that delivered by the system.

As shown in Figure 10, this year's projection of SFPUC wholesale rates has increased from the previous year's projection. If the drought ends in FY 2017 and sales increase (or at least don't decline further), then rate projections may level out. However, if snow and rain do not materialize, current calls for restricted usage may continue or even be increased.

Figure 10: Historical and Projected SFPUC Wholesale Water Rate



SECTION 6B: OPERATIONS

CPAU's Water Utility operations include the following activities:

- Administration, a category that includes charges allocated to the Water Utility for administrative services provided by the General Fund and for Utilities Department administration, as well as debt service and other transfers. Additional detail on Water Utility debt service is provided in *Section 6D: Debt Service*
- Customer Service
- Engineering work for maintenance activities (as opposed to capital activities)
- Operations and Maintenance of the distribution system; and
- Resource Management

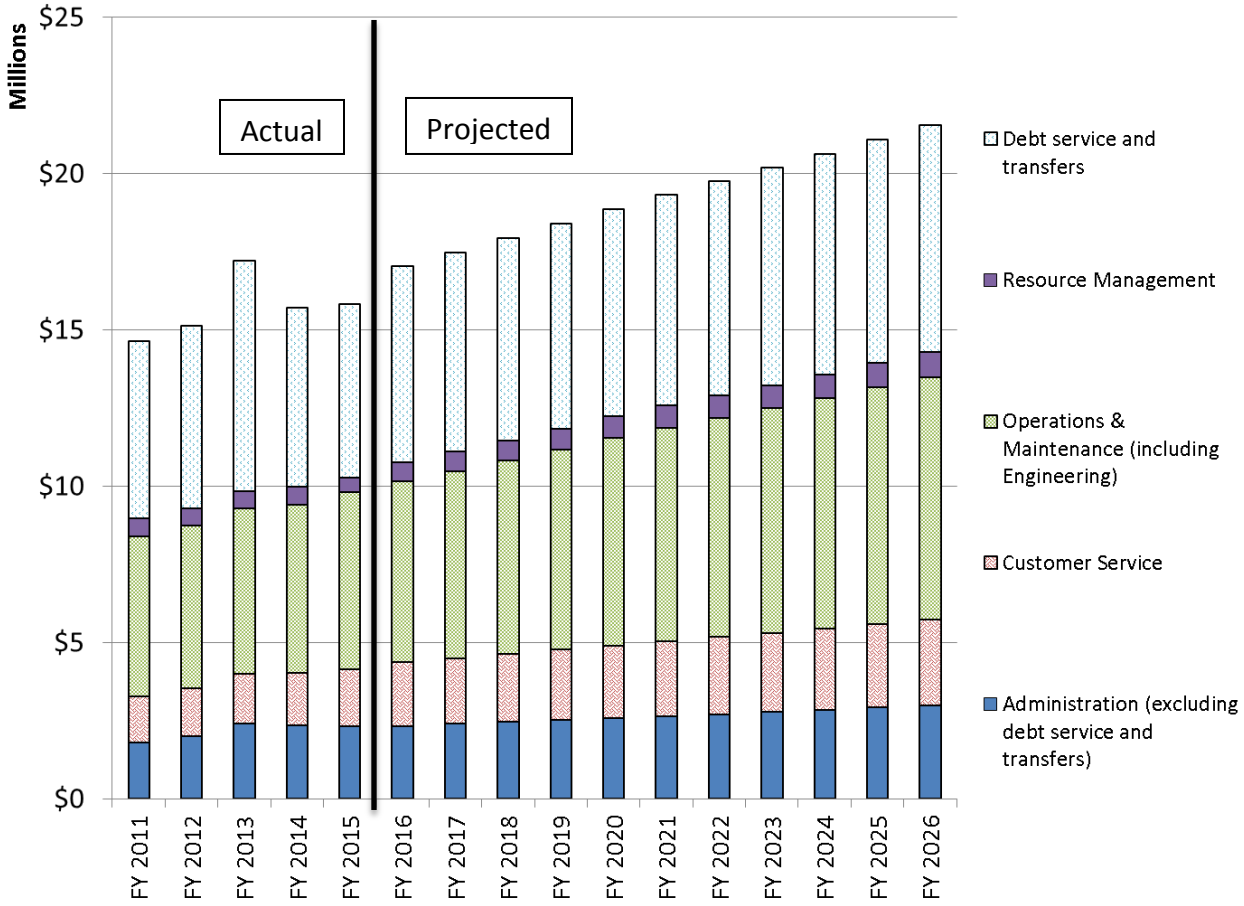
Appendix D: Description of Water Utility Operational Activities includes detailed descriptions of the work associated with each of these activities.

From FY 2011 to FY 2015 Operations costs (excluding debt service, rent, and transfers) increased 3.5% per year on average (see Figure 11). The increases were driven by allocated charges, which increased by 7% per year on average and increases in other Operations costs, which increased by roughly 4% per year. Debt service costs increased by $2.4 million per year as a result of a bond issued to finance the Emergency Water Supply and Storage Project. Transfers

have varied from year to year, but are expected to remain relatively low and stable through the forecast period.

In FY 2017 Operations costs are projected to increase by $1 million for a capital lease of emergency generators for various wells and pump stations. This is a new ongoing cost. Aside from that, only inflationary increases are projected for Operations costs. Underlying these projections are assumptions for salary and benefit costs, consumer price index, and other cost projections that match the City's long-range financial forecast.

Figure 11: Historical and Projected Operational Costs



SECTION 6C: CAPITAL IMPROVEMENT PROGRAM (CIP)

The Water Utility's CIP consists of the following types of projects:

- Customer connections, which represents the cost when the Water Utility installs new services or upgrades existing services at a customer's request in response to development or redevelopment. CPAU charges a fee to these customers to cover the cost of these projects.
- Ongoing projects, which represent the cost of replacing aging and under-recording meters and degraded boxes and covers, minor replacements of various types of distribution system equipment, and the cost of capitalized tools and equipment.

- One time projects, or large, non-recurring replacement of system assets (such as reservoir rehabilitation)
- Water main replacement, which represents the ongoing replacement of aging water mains, and sometimes the services associated with those mains.

Table 15 shows the FY 2016 adopted budget, with actual spending and remaining budget as of December 31, 2015. Also included is the five year CIP spending plan, although these figures are preliminary pending budget discussions starting in May. The 'committed' column represents funds committed to contracts for which work has not yet been completed or invoices paid.

Table 15: Budgeted Water Utility CIP Spending ($000)

Project Category	Current Budget*	Spending, Curr. Yr	Remain. Budget**	Committed	FY 2017	FY 2018	FY 2019	FY 2021
One Time Projects	10,686	(1,035)	9,651	6,115	200	-	-	-
Water Main Replacement	11,380	(3,706)	7,674	236	6,266	6,454	6,647	6,847
Ongoing Projects	1,687	(524)	1,163	333	2,359	1,924	1,925	1,982
Customer Connections	463	(443)	20	43	690	711	732	754
TOTAL	24,216	(5,708)	18,508	6,726	9,515	9,088	9,305	9,582

*Includes unspent funds from previous years carried forward or reappropriated into the current fiscal year

**Equal to Reserve for Reappropriations + Reserve for Commitments.

The water main replacement program funds the replacement of deteriorating water mains. The water system consists of over 236 miles of mains, approximately 2000 fire hydrants, and over 20,000 metered service connections spanning 9 pressure zones over a 26 square mile service area. CPAU utilizes an asset management database in conjunction with hydraulic modeling software to prioritize capital improvements. Mains are selected by researching the maintenance history of the system and identifying those that are undersized, corroded, and subject to recurring breaks. CPAU uses a scoring system based on criticality in order to prioritize which mains to replace first, and coordinates with the Public Works street maintenance program to avoid cutting into newly repaved streets. CPAU replaces approximately 3 miles of main per year, or 1.3% of the system.

Costs for the water main replacement program are increasing for a variety of reasons:

- Fire Code regulations now mandate fire sprinklers for new residential units. To accommodate increased fire flows, new main replacement projects require larger diameter pipe.
- CPAU has switched to high-density polyethylene (HDPE) for its mains. Installation costs for this material are slightly higher, though lifecycle costs are lower, and the material performs better. Joints in distribution mains are the most likely place for failure, and sections of HDPE pipe can be fused together rather than connected with fittings. In the long run, this will reduce losses and maintenance costs.
- To take full advantage of HDPE's fusibility, CPAU is now replacing the services along with the water mains with new HDPE services. In the past, the existing services were reconnected, regardless of the material. This new practice costs more in the short run, but will provide long term benefits.
- Lastly, costs have escalated after the recession.

These factors have created some uncertainty in future water main replacement costs. If the cost of water main replacement continues at its current levels, water main replacement budgets will need to be increased by $1M to $2M per year to keep up the current pace of main replacement. However, CPAU is nearing the end of a long term water main replacement program initiated in 1993 to replace the oldest and most degraded parts of the system. Roughly 25% of the system has been replaced, and the rate of water leaks has decreased 50%. This makes it a good time to re-evaluate the program. CPAU initiated a master planning process in FY 2015 to evaluate the current state of the distribution system and determine the necessary rate of main replacement in future years. Currently the utility replaces about 1.3% of the system each year, which is an 80-year replacement cycle. The master planning process may reveal a need for a higher main replacement rate, or may reveal that pipes are currently in good condition and a lower rate of replacement is sufficient. Results are being reviewed and follow up questions prepared.

If this study determines that a lower rate of main replacement is acceptable, increases to water main replacement project budgets may not be necessary. Likewise, if the per-mile costs of main replacement come down, that would also reduce or eliminate the need to increase main replacement budgets. A combination of reduced costs and a reduced rate of main replacement could even allow CPAU to reduce those budgets. However, if per-mile main replacement costs stay at their current levels and the study reveals the need to maintain the same rate of main replacement (or a higher rate), CPAU's CIP costs would rise.

One project not included in this forecast is the seismic strengthening of a large water transmission line in the foothills. Staff has engaged a consultant to investigate alternatives for this project. The consultant is analyzing an alternative that involves installing a valve and hose system that could be used to bypass breaks in the line while they are repaired after an earthquake. This is a relatively low cost alternative that would not substantially affect the financial forecast. The study is not finalized yet, however, and if it is determined that the entire pipeline needs to be replaced, it could cost between $15 million and $20 million, which would likely require bond financing and would substantially affect the financial forecast. The final report with recommendations is expected to be available in 2016.

Ongoing Projects and Customer Connections are projected to cost approximately $1.9 million in FY 2016 and increase by 3.5% per year through the end of the forecast period. Actual expenses for these projects fluctuate annually depending on how many defective meters are discovered and replaced during routine maintenance, as well as how much development and redevelopment is going on that prompts the replacement or upgrade of water services. It is worth noting that property owners pay a fee for water service replacement or expansion during redevelopment, so when the number of projects go up (meaning higher costs for this activity), so does fee revenue.

Aside from customer connections, the CIP plan for FY 2016 to FY 2020 is funded by utility rates and capacity fees. The details of the plan are shown in *Appendix B: Water Utility Capital Improvement Program (CIP) Detail*.

SECTION 6D: DEBT SERVICE

The Water Utility's annual debt service is roughly $3.2 million per year. This is related to two bond issuances, one requiring payments through 2026, the other through 2035. CPAU is in compliance with all covenants on both bonds.

The first bond is the 2009 Water Revenue Bond, Series A, issued for $35 million to finance construction of the Emergency Water Supply and Storage project (the El Camino Reservoir, new wells, rehabilitation of existing wells and tanks, etc.) and to be retired by 2035. As part of the 'Build America' bond program, there is an interest payment subsidy from the Federal Government of 35%. There is always the possibility that the federal government will choose to stop payment on this subsidy. The automatic federal spending cuts under the Budget Control Act (BCA) of 2011 have already reduced the subsidy by $50,000 per year, and if planned cuts through 2021 proceed without amendment, staff estimates that the subsidy would be reduced by over $200,000 per year by 2021. The Bipartisan Budget Act of 2013, which relieved some of the discretionary spending cuts in the 2011 BCA, did not affect automatic cuts to the subsidy, and actually extended the automatic cuts through 2023.

The second bond issuance is the 2011 Utility Revenue Refunding Bond, Series A, which is to be retired in 2026. This $17.2 million issuance refinanced an earlier Water and Gas Utility bond issuance, the 2002 Utility Revenue Bonds, Series A, which was issued to finance various capital improvements for both systems. The Water Utility's share of the issuance was roughly $7.8 million.

The cost of debt service for the Water Utility's share of these bond issuances for the financial forecast period is shown in Table 16:

Table 16: Water Utility Debt Service ($000)

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
2009 Water Revenue Bonds, Series A (net of grants)	2,002	2,012	2,031	2,046	2,064	2,079	2,101	2,151
2011 Utility Revenue Bonds, Series A	657	657	656	654	656	657	657	657

Both the 2009 and 2011 Bonds include the following covenants: 1) net revenues plus Available Reserves shall at least equal 125% of the maximum annual debt service, and 2) Available Reserves shall be at least 5 times the maximum annual debt service. Note that "Available Reserves," as defined for both bonds, include the reserves for the Gas and Electric systems, not just the Water system. This Financial Plan maintains compliance with these covenants throughout the forecast period, as shown in *Appendix A: Water Utility Financial Forecast Detail*.

The net revenues (but not the reserves) of the Water Utility are also pledged for one other bond as shown in Table 17 below, even though the Water Utility is not responsible for the debt service payments. The Water Utility's reserves or net revenues would only be called upon if the responsible utilities are unable to make their debt service payments. Staff does not currently foresee this occurring. Requirements of the California Constitution require that any amounts advanced from one utility to pay debt service for another utility must be repaid by the borrowing fund.

Table 17: Other Issuances Secured by the Water Utility's Revenues or Reserves

Bond Issuance	Responsible Utilities	Annual Debt Service ($000)	Secured by Water Utility's:	
			Net Revenues	Reserves
1995 Series A Utility Revenue Bonds	Storm Drain	$680	Yes	No

SECTION 6E: OTHER REVENUES

The Water Utility receives most of its revenues from sales of water, but about 7% comes from other sources. The largest revenue source in FY 2015 was a one-time return of previously budgeted CIP dollars (36%). The next largest source is connection and capacity fees, which in FY 2015 represented 29% of revenue from sources other than water sales. The remainder consisted of a variety of miscellaneous charges and transfers.

Revenues from connection and capacity fees have more than doubled since FY 2009. Connection fees are charged to new developments that need new or replacement service connections, while capacity fees are charged to development that put additional demands on the water distribution system. Revenue from these sources decreased slightly during the recession, but has increased substantially since then. Staff is forecasting lower revenue from these sources in subsequent years, but has increased connection fees that are expected to offset these reductions to some extent.

Other revenue sources are projected to stay stable through the forecast period, though interest income always fluctuates depending on changes in interest rates. Some uncertainty also exists related to the Federal government's commitment to continuing to pay the interest subsidy on the Build America Bonds.

SECTION 6F: SALES REVENUES

Sales revenue projections are based on the load forecast in *Section 5A: Load Forecast* and the projected rate changes shown in Figure 5. Except where stated otherwise, these load forecasts are based on normal precipitation. Precipitation can vary substantially, however, even in non-drought years, and this can affect revenues substantially. In dry years customers use more water, increasing revenues, and in wet years they use less. These variations happen in the winter, since summers have virtually no local precipitation regardless of whether it is a dry or wet year. The variations are most likely related to winter irrigation demand.

SECTION 7: COMMUNICATIONS PLAN

In FY 2017, communications will continue to focus on water utility rate increases, including the reasons why and how rates may change contingent upon continued drought conditions. The City will also communicate how infrastructure costs and rising rates from our wholesale water supplier, the San Francisco Public Utilities Commission, increases CPAU costs and must be recovered through rate increases. Rates communications will include a substantial update to information on a webpage dedicated to Utilities rates, "breaking news" on the Utility home webpage, discussion in the Proposition 218 rate adjustment notice, bill inserts, print ads, videos

for web and television, social media posts and frequent educational updates to internal and external stakeholders (customer service, marketing, City Manager's Office, UAC, City Council, business and residential customers). Other communications vehicles will include financial plans, presentations to UAC, Finance Committee, City Council and any media coverage as a result of the rate increases. CPAU will continue its outreach about drought conditions and importance of water use efficiency, tying in the message that although rates are increasing, efficient usage should mean that a customer should not see a significant increase in water utility costs on their bills.

Water conservation outreach will include bill inserts, web updates, email blasts, videos for the web and television, presentations to customer groups and the use of social media. To keep customers apprised of the status and accomplishments of CIP projects, a network of project web pages are maintained. Traffic is driven to the website via ads in publications, newspaper inserts, and through the comprehensive portfolio of outreach strategies as outlined above. Safety topics are also emphasized year-round. For all utility outreach, while print materials and website pages still feature prominently, CPAU is placing more emphasis on digital advertising content, direct mail, community safety/emergency preparation events and presentations.

APPENDICES

Appendix A: Water Utility Financial Forecast Detail

Appendix B: Water Utility Capital Improvement Program (CIP) Detail

Appendix C: Water Utility Reserves Management Practices

Appendix D: Description of Water Utility Operational Activities

Appendix E: Sample of Water Utility Outreach Communications

APPENDIX A: WATER UTILITY FINANCIAL FORECAST DETAIL

FISCAL YEAR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
WATER SUPPLY																
Purchases	5,416,220	5,538,305	5,532,947	5,507,153	4,671,433	4,127,085	4,172,372	4,353,850	4,556,414	4,486,307	4,448,095	4,410,865	4,372,643	4,328,601	4,285,924	4,231,873
Sales	4,992,473	5,062,873	5,097,392	5,047,148	4,433,016	3,858,825	3,859,444	4,027,311	4,214,683	4,149,834	4,114,488	4,080,051	4,044,695	4,003,956	3,964,480	3,914,482
						(530,686)	-12.1%									
BILL AND RATE CHANGES																
Variable Charge (Supply)	15%	38%	11%	-16%	25%	22%	7%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Variable Charge (Distribution)	-7%	-12%	17%	30%	-16%	10%	5%	15%	14%	9%	2%	2%	2%	3%	3%	6%
Change in System Average Rate	0%	12%	22%	8%	0%	11%	6%	9%	9%	6%	2%	2%	2%	3%	3%	5%
STARTING RESERVES																
Reappropriations (Non-CIP)	54,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commitments (Non-CIP)	40,000	765,000	714,000	2,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000
Restricted for Debt Service	3,348,000	3,348,000	3,225,000	3,225,000	3,331,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000
Emergency Plant Replacement	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Capital Reserve	-	-	-	-	-	4,000,000	13,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000
Rate Stabilization Reserve	17,037,000	10,639,000	7,996,000	17,272,000	20,133,000	6,567,000	1,867,000	-	-	-	-	-	-	-	-	-
Operations Reserve	-	-	-	-	-	11,663,836	9,807,734	11,017,309	7,655,292	7,759,702	9,208,904	10,185,947	10,710,850	10,890,498	10,976,735	10,969,473
Unassigned	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL STARTING RESERVES	21,479,000	15,772,000	12,935,000	21,499,000	24,811,000	25,893,836	28,593,734	23,936,309	20,574,292	20,678,702	22,127,904	23,104,947	23,629,850	23,809,498	23,895,735	23,888,473
REVENUES																
Net Sales	26,133,998	30,673,882	36,647,924	39,029,262	33,654,549	36,263,267	38,159,141	40,715,075	46,016,043	48,155,815	48,584,946	49,023,735	49,587,825	50,566,700	51,576,926	53,401,555
Other Revenues and Transfers In	2,812,063	5,892,133	6,811,461	4,053,920	7,504,848	3,307,155	3,363,253	3,420,419	3,478,285	3,536,762	3,597,449	3,662,424	3,728,765	3,816,351	3,906,270	3,998,583
TOTAL REVENUES	28,946,061	36,566,015	43,459,385	43,083,182	41,159,397	39,570,422	41,522,394	44,135,494	49,494,328	51,692,577	52,182,395	52,686,158	53,316,590	54,383,051	55,483,196	57,400,138
EXPENSES						26.4%										
Water Purchases	10,677,914	14,889,399	16,605,351	15,705,288	15,669,935	17,644,669	18,899,310	19,976,217	21,177,479	21,259,327	21,475,294	21,696,607	21,914,567	22,302,108	22,701,664	23,050,946
Operating Expenses																
Administration																
Allocated Charges	*1,798,630*	*2,003,116*	*2,422,880*	*2,366,077*	*2,342,985*	*2,343,499*	*2,402,461*	*2,462,917*	*2,524,882*	*2,588,411*	*2,653,298*	*2,719,668*	*2,787,709*	*2,857,466*	*2,928,969*	*3,002,261*
Rent	*2,122,405*	*2,156,887*	*1,911,963*	*2,192,454*	*2,249,457*	*2,677,106*	*2,757,419*	*2,840,142*	*2,925,346*	*3,013,106*	*3,103,500*	*3,196,605*	*3,292,503*	*3,391,278*	*3,493,016*	*3,597,807*
Debt Service	*3,341,781*	*3,385,986*	*3,219,165*	*3,220,208*	*3,218,869*	*3,222,606*	*3,219,316*	*3,222,669*	*3,220,858*	*3,220,638*	*3,222,843*	*3,223,563*	*3,224,553*	*3,224,553*	*3,224,553*	*3,224,553*
Transfers and Other Adjustments	*200,286*	*301,963*	*2,241,793*	*335,808*	*63,612*	*376,108*	*383,630*	*391,302*	*399,129*	*407,111*	*415,253*	*423,558*	*432,030*	*432,030*	*432,030*	*432,030*
Subtotal, Administration	7,463,102	7,847,952	9,795,801	8,114,546	7,874,923	8,619,319	8,762,826	8,917,030	9,070,214	9,229,266	9,394,893	9,563,393	9,736,794	9,905,326	10,078,567	10,256,650
Resource Management	575,834	552,972	557,910	570,040	488,331	601,238	621,475	642,529	664,121	686,511	706,216	724,410	743,231	762,742	782,766	803,316
Operations and Mtc	4,885,428	4,900,606	4,944,064	4,986,274	5,283,426	5,345,288	5,529,766	5,721,935	5,919,070	6,123,705	6,301,710	6,464,531	6,633,106	6,808,061	6,987,630	7,171,936
Engineering (Operating)	247,488	301,278	338,659	381,502	358,128	447,404	463,096	479,457	496,243	513,680	528,735	542,422	556,602	571,328	586,444	601,959
Customer Service	1,476,175	1,544,608	1,584,759	1,677,926	1,821,447	2,027,659	2,098,960	2,173,305	2,249,589	2,328,837	2,397,182	2,459,257	2,523,568	2,590,368	2,658,935	2,729,318
Allowance for Unspent Budget	-	-	-	-	-	401,476	(411,505)	(424,995)	(438,832)	(453,167)	(465,976)	(477,939)	(490,301)	(503,100)	(516,234)	(529,711)
Subtotal, Operating Expenses	14,648,027	15,147,415	17,221,192	15,730,288	15,826,254	17,442,384	17,064,620	17,509,261	17,960,405	18,428,832	18,862,761	19,276,075	19,702,999	20,134,724	20,578,108	21,033,467
Capital Program Contribution	9,327,120	9,366,201	1,068,841	8,335,605	8,580,372	11,039,470	10,215,889	10,012,033	10,252,034	10,555,216	10,867,297	11,188,574	11,519,375	11,859,984	12,210,686	12,571,782
TOTAL EXPENSES	34,653,061	39,403,015	34,895,385	39,771,182	40,076,561	46,126,524	46,179,819	47,497,511	49,389,918	50,243,375	51,205,352	52,161,256	53,136,941	54,296,815	55,490,458	56,656,195
ENDING RESERVES																
Reappropriations (Non-CIP)	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commitments (Non-CIP)	765,000	714,000	2,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000
Restricted for Debt Service	3,348,000	3,225,000	3,225,000	3,331,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000	3,316,000
Emergency Plant Replacement	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-	-	-	-	-	-	-	-	-	-
Capital Reserve	-	-	-	-	4,000,000	13,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000	9,256,000
Rate Stabilization Reserve	10,639,000	7,996,000	17,272,000	20,133,000	6,567,000	1,867,000	-	-	-	-	-	-	-	-	-	-
Operations Reserve	-	-	-	-	11,663,836	9,807,734	11,017,309	7,655,292	7,759,702	9,208,904	10,185,947	10,710,850	10,890,498	10,976,735	10,969,473	11,713,415
Unassigned	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL ENDING RESERVES	15,772,000	12,935,000	21,499,000	24,811,000	25,893,836	28,593,734	23,936,309	20,574,292	20,678,702	22,127,904	23,104,947	23,629,850	23,809,498	23,895,735	23,888,473	24,632,415
OPERATIONS RESERVE																
Min (60 days of non-capital expenses)	-	-	-	-	5,230,611	6,082,017	6,232,446	6,488,975	6,767,143	6,864,270	6,977,906	7,089,168	7,202,255	7,336,928	7,475,494	7,607,764
Target (90 days of non-capital expenses)	-	-	-	-	9,395,240	9,166,903	9,395,593	9,783,548	10,204,079	10,353,171	10,527,111	10,697,594	10,870,947	11,085,459	11,306,122	11,517,661
Max (120 days of non-capital expenses)	-	-	-	-	13,559,870	12,251,790	12,558,739	13,078,120	13,641,014	13,842,072	14,076,317	14,306,020	14,539,639	14,833,990	15,136,750	15,427,559
Risk Assessment Value					2,481,768	2,873,181	2,840,361	3,050,960	3,320,931	3,523,428	3,579,316	3,636,369	3,704,694	3,794,916	3,892,600	4,062,286

Appendix A (continued)

FISCAL YEAR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
REVENUES																
Net Sales	90%	84%	84%	91%	82%	92%	92%	92%	93%	93%	93%	93%	93%	93%	93%	93%
Other Revenues and Transfers In	10%	16%	16%	9%	18%	8%	8%	8%	7%	7%	7%	7%	7%	7%	7%	7%
TOTAL REVENUES	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
EXPENSES																
Water Purchases	31%	38%	48%	39%	39%	38%	41%	42%	43%	42%	42%	42%	41%	41%	41%	41%
Operating Expenses																
Administration																
Allocated Charges	*5%*	*5%*	*7%*	*6%*	*6%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*
Rent	*6%*	*5%*	*5%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*
Debt Service	*10%*	*9%*	*9%*	*8%*	*8%*	*7%*	*7%*	*7%*	*7%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*
Transfers and Other Adjustments	*1%*	*1%*	*6%*	*1%*	*0%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
Subtotal, Administration	22%	20%	28%	20%	20%	19%	19%	19%	18%	18%	18%	18%	18%	18%	18%	18%
Resource Management	2%	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Operations and Mtc	14%	12%	14%	13%	13%	12%	12%	12%	12%	12%	12%	12%	12%	13%	13%	13%
Engineering (Operating)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Customer Service	4%	4%	5%	4%	5%	4%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Allowance for Unspent Budget	0%	0%	0%	0%	0%	1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Subtotal, Operating Expenses	42%	38%	49%	40%	39%	38%	37%	37%	36%	37%	37%	37%	37%	37%	37%	37%
Capital Program Contribution	27%	24%	3%	21%	21%	24%	22%	21%	21%	21%	21%	21%	22%	22%	22%	22%
TOTAL EXPENSES	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RISK ASSESSMENT DETAIL																
Distribution Revenue Variance					1,623,731	1,769,234	1,818,772	2,049,757	2,295,727	2,467,907	2,492,586	2,517,512	2,552,757	2,608,918	2,671,532	2,805,108
10% CIP Program Contingency					858,037	1,103,947	1,021,589	1,001,203	1,025,203	1,055,522	1,086,730	1,118,857	1,151,938	1,185,998	1,221,069	1,257,178
Total Risk Asssessment Value					2,481,768	2,873,181	2,840,361	3,050,960	3,320,931	3,523,428	3,579,316	3,636,369	3,704,694	3,794,916	3,892,600	4,062,286
Projected Operations Reserve					11,663,836	9,807,734	11,017,309	7,655,292	7,759,702	9,208,904	10,185,947	10,710,850	10,890,498	10,976,735	10,969,473	11,713,415
Operations Reserve, % of Risk Value					470%	341%	388%	251%	234%	261%	285%	295%	294%	289%	282%	288%
OPERATIONS RESERVE																
Min (60 days of non-capital expenses)	-	-	-	-	5,230,611	6,082,017	6,232,446	6,488,975	6,767,143	6,864,270	6,977,906	7,089,168	7,202,255	7,336,928	7,475,494	7,607,764
Target (90 days of non-capital expenses)	-	-	-	-	9,395,240	9,166,903	9,395,593	9,783,548	10,204,079	10,353,171	10,527,111	10,697,594	10,870,947	11,085,459	11,306,122	11,517,661
Max (120 days of non-capital expenses)	-	-	-	-	13,559,870	12,251,790	12,558,739	13,078,120	13,641,014	13,842,072	14,076,317	14,306,020	14,539,639	14,833,990	15,136,750	15,427,559
Risk Assessment Value					2,481,768	2,873,181	2,840,361	3,050,960	3,320,931	3,523,428	3,579,316	3,636,369	3,704,694	3,794,916	3,892,600	4,062,286
DEBT SERVICE COVERAGE RATIO																
Net Revenues (125% of Debt Service)	658%	787%	951%	876%	878%	989%	1017%	1063%	1115%	1132%	1152%	1171%	1191%	1216%	1242%	1267%
Available Reserves (5x Debt Service)*	3.5	2.7	5.7	6.6	6.9	7.7	6.3	5.2	5.3	5.7	6.0	6.2	6.2	6.3	6.3	6.5

APPENDIX B: WATER UTILITY CAPITAL IMPROVEMENT PROGRAM (CIP) DETAIL

Project #	Project Name	Remaining in CIP Reserve Fund	Commitments	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
ONE TIME PROJECTS								
WS-07000	Regulation Station Imp.	929,920	-	-	-	-	-	
WS-07001	Water Recycling Facilities	200,601	2,291	-	-	-	-	
WS-08001	Water Reservoir Coating	2,475,603	-	-	-	-	-	
WS-09000	Seismic Water System	4,850,291	-	-	-	-	-	
WS-11001	Vacuum Excavation Equip.	-	-	-	-	-	-	
WS-13003	GPS Equipment Upgrade	200,000	-	-	-	-	-	
WS-13004	Asset Mgmt. Mobile Sys.	91,522	-	-	-	-	-	
WS-13006	Meter Shop Renovations	46,892	-	-	-	-	-	
WS-15004	Water System Master Plan	244,814	78,666					
WS-08002	Emergency Water Supply	703,817	448,739	-	-	-	-	
Subtotal, One-time Projects		**9,743,460**	**529,696**	**-**	**-**	**-**	**-**	**-**
WATER MAIN REPLACEMENT PROGRAM								
WS-xxxx	WMR - Project 32	-	-	-	-	-	-	658,543
WS-09001	WMR - Project 23	-	-	-	-	-	-	
WS-10001	WMR-Project 24	-	-	-	-	-	-	
WS-11000	WMR-Project 25	1,181,868	193,000	-	-	-	-	
WS-12001	WMR- Project 26	5,924,570	-	-	-	-	-	
WS-13001	WMR - Project 27	568,065	42,500	5,680,651	-	-	-	-
WS-14001	WMR - Project 28	-	-	585,107	5,851,070	-	-	-
WS-15002	WMR - Project 29	-	-	-	602,660	6,026,602	-	-
WS-16001	WMR - Project 30	-	-	-	-	620,740	6,207,400	-
WS-19001	WMR - Project 31	-	-	-	-	-	639,362	6,396,000
Subtotal, Water Main Replacement Prog.		**7,674,503**	**235,500**	**6,265,758**	**6,453,730**	**6,647,342**	**6,846,762**	**7,054,543**

Appendix B: Water Utility Capital Improvement Program (CIP) Detail (Continued)

Project #	Project Name	Remaining in CIP Reserve Fund	Commitments	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
ONGOING PROJECTS								
WS-80014	Services/Hydrants	194,863	-	400,000	412,000	424,360	437,091	450,204
WS-80015	Water Meters	402,888	110,905	565,000	565,000	500,000	515,000	530,450
WS-02014	W-G-W Utility GIS Data	285,257	183,069	366,025	402,628	442,890	456,177	469,862
WX-xxxx	Annual Survey			40,000	41,200	42,436	43,709	45,020
WS-13002	Equipment/Tools	50,000	-	50,000	50,000	50,000	50,000	50,000
WS-11003	Dist. Sys. Improvements	155,803	3,000	739,000	247,000	254,000	261,620	269,469
WS-11004	Supply Sys. Improvements	106,524	35,614	239,000	247,000	254,000	261,620	269,469
Subtotal, Ongoing Projects		1,195,335	332,588	2,399,025	1,964,828	1,967,686	2,025,217	2,084,473
CUSTOMER CONNECTIONS (FEE FUNDED)								
WS-80013	Water System Extensions	50,496	42,880	690,000	710,700	732,021	753,982	776,601
Subtotal, Customer Connections		**50,496**	**42,880**	**690,000**	**710,700**	**732,021**	**753,982**	**776,601**
GRAND TOTAL		**18,663,794**	**1,140,664**	**9,354,783**	**9,129,258**	**9,347,049**	**9,625,961**	**9,915,617**
Funding Sources								
Connection/Capacity Fees				690,000	710,700	732,021	753,982	
Other Utility Funds (Asset Mgmt, GIS Systems)				244,017	268,418	295,260	304,118	
Utility Rates				9,354,783	9,129,258	9,347,049	9,625,961	9,915,617

CIP-RELATED RESERVES DETAIL	9/30/2015
Reappropriations (excl. Bond Funded)	17,523,130
Commitments (excl. Bond Funded)	1,140,664

APPENDIX C: WATER UTILITY RESERVES MANAGEMENT PRACTICES

The following reserves management practices shall be used when developing the Water Utility Financial Plan:

Section 1. Definitions

a) "Financial Planning Period" – The Financial Planning Period is the range of future fiscal years covered by the Financial Plan. For example, for the Water Utility Financial Plan delivered in conjunction with the FY 2015 budget, FY 2015 to FY 2021 is the Financial Planning Period.
b) "Fund Balance" – As used in these Reserves Management Practices, Fund Balance refers to the Utility's Unrestricted Net Assets.
c) "Net Assets" - The Government Accounting Standards Board defines a Utility's Net Assets as the difference between its assets and liabilities.
d) "Unrestricted Net Assets" - The portion of the Utility's Net Assets not invested in capital assets (net of related debt) or restricted for debt service or other restricted purposes.

Section 2. Reserves

The Water Utility's Fund Balance is reserved for the following purposes:

a) For existing contracts, as described in Section 3 (Reserve for Commitments)
b) For operating and capital budgets re-appropriated from previous years, as described in Section 4 (Reserve for Re-appropriations)
c) For cash flow management and contingencies related to the Water Utility's Capital Improvement Program (CIP), as described in Section 5 (CIP Reserve)
d) For rate stabilization, as described in Section 6 (Rate Stabilization Reserve)
e) For operating contingencies, as described in Section 7 (Operations Reserve)
f) Any funds not included in the other reserves will be considered Unassigned Reserves and shall be returned to ratepayers or assigned a specific purpose as described in Section 8 (Unassigned Reserves).

Section 3. Reserve for Commitments

At the end of each fiscal year the Reserve for Commitments will be set to an amount equal to the total remaining spending authority for all contracts in force for the Water Utility at that time.

Section 4. Reserve for Re-appropriations

At the end of each fiscal year the Reserve for Re-appropriations will be set to an amount equal to the amount of all remaining capital and non-capital budgets, if any, that will be re-appropriated to the following fiscal year in accordance with Palo Alto Municipal Code Section 2.28.090.

Section 5. CIP Reserve

The CIP Reserve is used to manage cash flow for capital projects and acts as a reserve for capital contingencies. Staff will manage the CIP Reserve according to the following practices:

a) The following guideline levels are set forth for the CIP Reserve. These guideline levels are calculated for each fiscal year of the Financial Planning Period based on the levels of CIP expense budgeted for that year.

Minimum Level	12 months of budgeted CIP expense
Maximum Level	24 months of budgeted CIP expense

b) Changes in Reserves: Staff is authorized to transfer funds between the CIP Reserve and the Reserve for Commitments when funds are added or removed from to that reserve as a result of a change in contractual commitments related to CIP projects. Any other additions to or withdrawals from the CIP reserve require Council action.

c) Minimum Level:
   i) Funds held in the Reserve for Commitments may be counted as part of the CIP Reserve for the purpose of determining compliance with the CIP Reserve minimum guideline level.
   ii) If, at the end of any fiscal year, the minimum guideline is not met, staff shall present a plan to the City Council to replenish the reserve. The plan shall be delivered by the end of the following fiscal year, and shall, at a minimum, result in the reserve reaching its minimum level by the end of the next fiscal year. For example, if the CIP Reserve is below its minimum level at the end of FY 2017, staff must present a plan by June 30, 2018 to return the reserve to its minimum level by June 30, 2019. In addition, staff may present, and the Council may adopt, an alternative plan that takes longer than one year to replenish the reserve, or that does so in a shorter period of time.

d) Maximum Level: If, at any time, the CIP Reserve reaches its maximum level, no funds may be added to this reserve. If there are funds in this reserve in excess of the maximum level staff must propose to transfer these funds to another reserve or return them to ratepayers in the next Financial Plan. Staff may also seek City Council to approve holding funds in this reserve in excess of the maximum level if they are held for a specific future purpose related to the CIP.

Section 6. Rate Stabilization Reserve

Funds may be added to the Rate Stabilization Reserve by action of the City Council and held to manage the trajectory of future year rate increases. Withdrawal of funds from the Rate Stabilization Reserve requires Council action. If there are funds in the Rate Stabilization Reserve at the end of any fiscal year, any subsequent Water Utility Financial Plan must result in the withdrawal of all funds from this Reserve by the end of the next Financial Planning Period.

Section 7. Operations Reserve

The Operations Reserve is used to manage normal variations in costs and as a reserve for contingencies. Any portion of the Water Utility's Fund Balance not included in the reserves described in Section 3-Section 6 above will be included in the Operations Reserve unless this reserve has reached its maximum level as set forth in Section 7(d) below. Staff will manage the Operations Reserve according to the following practices:

a) The following guideline levels are set forth for the Operations Reserve. These guideline levels are calculated for each fiscal year of the Financial Planning Period based on the levels of Operations and Maintenance (O&M) and commodity expense forecasted for that year in the Financial Plan.

Minimum Level	60 days of O&M and commodity expense
Target Level	90 days of O&M and commodity expense
Maximum Level	120 days of O&M and commodity expense

b) Minimum Level: If, at the end of any fiscal year, the funds remaining in the Operations Reserve are lower than the minimum level set forth above, staff shall present a plan to the City Council to replenish the reserve. The plan shall be delivered within six months of the end of the fiscal year, and shall, at a minimum, result in the reserve reaching its minimum level by the end of the following fiscal year. For example, if the Operations Reserve is below its minimum level at the end of FY 2014, staff must present a plan by December 31, 2014 to return the reserve to its minimum level by June 30, 2015. In addition, staff may present, and the Council may adopt, an alternative plan that takes longer than one year to replenish the reserve.

c) Target Level: If, at the end of any fiscal year, the Operations Reserve is higher or lower than the target level, any Financial Plan created for the Water Utility shall be designed to return the Operations Reserve to its target level within four years.

d) Maximum Level: If, at any time, the Operations Reserve reaches its maximum level, no funds may be added to this reserve. Any further increase in the Water Utility's Fund Balance shall be automatically included in the Unassigned Reserve described in Section 8, below.

Section 8. Unassigned Reserve

If the Operations Reserve reaches its maximum level, any further additions to the Water Utility's Fund Balance will be held in the Unassigned Reserve. If there are any funds in the Unassigned Reserve at the end of any fiscal year, the next Financial Plan presented to the City Council must include a plan to assign them to a specific purpose or return them to the Water Utility ratepayers by the end of the first fiscal year of the next Financial Planning Period. For example, if there were funds in the Unassigned Reserves at the end of FY 2015, and the next Financial Planning Period is FY 2016 through FY 2021, the Financial Plan shall include a plan to return or assign any funds in the Unassigned Reserve by the end of FY 2016. Staff may present an alternative plan that retains these funds or returns them over a longer period of time.

APPENDIX D: DESCRIPTION OF WATER UTILITY OPERATIONAL ACTIVITIES

This appendix describes the activities associated with the various operational activities referred to in *Section 6B: Operations* of this Financial Plan.

Administration: Accounting, purchasing, legal, and other administrative functions provided by the City's General Fund staff, as well as shared communications services, CPAU administrative overhead, and billing system maintenance costs. This category also includes Water Utility debt service and rent paid to the General Fund for the land associated with reservoirs and various other facilities.

Customer Service: This category includes the Water Utility's share of the call center, meter reading, collections, and billing support functions. Billing support encompasses staff time associated with bill investigations and quality control on certain aspects of the billing process. It does not include maintenance of the billing system itself, which is included in Administration. This category also includes CPAU's key account representatives, who work with large commercial customers who have more complex requirements for their water services.

Engineering (Operating): The Water Utility's engineers focus primarily on the CIP, but a small portion of their time is spent assisting with distribution system maintenance.

Operations and Maintenance: This category includes the costs of a variety of distribution system maintenance activities, including:

- investigating reports of damaged mains or services and performing emergency repairs;
- testing and operating valves;
- monitoring water quality and reservoir levels;
- monitoring the status of the different pressure zones;
- flushing water at hydrants and other closed end points of the system;
- building and replacing water services for new or redeveloped buildings; and
- testing and replacing meters to ensure accurate sales metering.

This category also includes a variety of functions the utility shares with other City utilities, including:

- the Field Services team (which does field research of various customer service issues);
- the Cathodic Protection team (which monitors and maintains the systems that prevent corrosion in metal tanks and reservoirs); and
- the General Services team (which manages and maintains equipment, paves and restores streets after gas, water, or sewer main replacements, and provides welding services)

Resource Management: This category includes water procurement, contract management, water resource planning, interaction with BAWSCA, the SFPUC, and the SCVWD, and tracking of legislation and regulation related to the water industry.

HELP MAKE EVERY PRECIOUS DROP COUNT!

California is in a drought and outdoor potable water use regulations are in effect. The City of Palo Alto is asking everyone to do their part to help us reduce water use by 10% or more. **We're here to help!** Take advantage of free water saving services and apply for rebates—now the highest they've ever been, but for a limited time only! Find out how easy it is to reduce your water use.

What You Can Do to Reduce 10% or More

LEAKS—check toilets, faucets, hoses etc. for leaks—small leaks can waste a lot of water and cost BIG money.

IRRIGATE—before 10 am or after 6 pm and only as needed. Don't forget to water your trees during the drought! Visit the Trees and Water resource page at **Canopy.org** for tips on proper care.

LANDSCAPE—replace lawn, upgrade irrigation hardware & reuse graywater. Now offering the highest rebates ever!*

SURVEY—schedule a free survey of your property for water saving tips.

UPGRADE—replace old toilets and clothes washers with high-efficiency models for rebates.

CHECK—water use regulations, supply updates and resources at **www.cityofpaloalto.org/water** or call (650) 329-2161.

Programs offered in partnership with the Santa Clara Valley Water District.

**For a limited time only, while funding lasts.*

CITY OF PALO ALTO UTILITIES
Inspired by a brighter tomorrow.

More on the drought and efficiency resources:
www.cityofpaloalto.org/water
(650) 329-2161

* NOT YET APPROVED *

Resolution No. _____

Resolution of the Council of the City of Palo Alto Increasing Water Rates by Amending Rate Schedules W-1 (General Residential Water Service), W-2 (Water Service from Fire Hydrants), W-3 (Fire Service Connections), W-4 (Residential Master-Metered and General Non-Residential Water Service), and W-7 (Non-Residential Irrigation Water Service)

R E C I T A L S

A. Pursuant to Chapter 12.20.010 of the Palo Alto Municipal Code, the Council of the City of Palo Alto may by resolution adopt rules and regulations governing utility services, fees and charges.

B. On ____, 2016, the City Council held a full and fair public hearing regarding the proposed rate increase and considered all protests against the proposals.

C. As required by Article XIII D, Section 6 of the California Constitution and applicable law, notice of the _____ 2016 public hearing was mailed to all City of Palo Alto Utilities water customers by _____, 2016.

D. The City Clerk has tabulated the total number of written protests presented by the close of the public hearing, and determined that it was less than fifty percent (50%) of the total number of customers and property owners subject to the proposed water rate amendments, therefore a majority protest does not exist against the proposal.

The Council of the City of Palo Alto does hereby RESOLVE as follows:

SECTION 1. Pursuant to Section 12.20.010 of the Palo Alto Municipal Code, Utility Rate Schedule W-1 (General Residential Water Service) is hereby amended to read as attached and incorporated. Utility Rate Schedule W-1, as amended, shall become effective July 1, 2016.

SECTION 2. Pursuant to Section 12.20.010 of the Palo Alto Municipal Code, Utility Rate Schedule W-2 (Water Service from Fire Hydrants) is hereby amended to read as attached and incorporated. Utility Rate Schedule W-2, as amended, shall become effective July 1, 2016.

SECTION 3. Pursuant to Section 12.20.010 of the Palo Alto Municipal Code, Utility Rate Schedule W-3 (Fire Service Connections) is hereby amended to read as attached and incorporated. Utility Rate Schedule W-3, as amended, shall become effective July 1, 2016.

SECTION 4. Pursuant to Section 12.20.010 of the Palo Alto Municipal Code, Utility Rate Schedule W-4 (Residential Master-Metered and General Non-Residential Water Service) is hereby amended to read as attached and incorporated. Utility Rate Schedule W-4, as amended, shall become effective July 1, 2016.

* NOT YET APPROVED *

SECTION 5. Pursuant to Section 12.20.010 of the Palo Alto Municipal Code, Utility Rate Schedule W-7 (Non-Residential Irrigation Water Service) is hereby amended to read as attached and incorporated. Utility Rate Schedule W-7, as amended, shall become effective July 1, 2016.

SECTION 6. The City Council finds as follows:

a. Revenues derived from the water rates approved by this resolution do not exceed the funds required to provide water service.

b. Revenues derived from the water rates approved by this resolution shall not be used for any purpose other than providing water service, and the purposes set forth in Article VII, Section 2, of the Charter of the City of Palo Alto.

c. The amount of the water rates imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the water service attributable to the parcel.

SECTION 7. The Council finds that the fees and charges adopted by this resolution are charges imposed for a specific government service or product provided directly to the payor that are not provided to those not charged, and do not exceed the reasonable costs to the City of providing the service or product.

SECTION 8. Each of the rate schedules adopted by this resolution includes a structure of drought surcharges that correspond to different levels of water use reduction in the City. In order to charge the lowest drought surcharge possible, each rate schedule includes not only the surcharge required to meet the 25% reduction level, but also surcharges reflecting two lower levels of water use reduction. At any time, no more than one of these three surcharges will be applicable. On August 17, 2015, Council adopted Resolution 9542 which established that the Level 2 (20%) drought surcharges set forth on the City's schedule of water rates will be collected on all City of Palo Alto Utilities water customer bills as of September 1, 2015 and declared that the surcharge shall remain in effect until rescinded or modified by the City Council.

SECTION 9. The Council finds that the adoption of this resolution changing water rates to meet operating expenses, purchase supplies and materials, meet financial reserve needs and obtain funds for capital improvements necessary to maintain service is not subject to the California Environmental Quality Act (CEQA), pursuant to California Public Resources Code Sec. 21080(b)(8) and Title 14 of the California Code of Regulations Sec. 15273(a). After reviewing the staff report and all attachments presented to Council, the Council incorporates these documents herein and finds that sufficient evidence has been presented setting forth with specificity the basis for this claim of CEQA exemption.

Attachment C

* NOT YET APPROVED *

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

_____
City Clerk

_____
Mayor

APPROVED AS TO FORM:

_____
Senior Deputy City Attorney

APPROVED:

_____
City Manager

_____
Director of Utilities

_____
Director of Administrative Services

GENERAL RESIDENTIAL WATER SERVICE

UTILITY RATE SCHEDULE W-1

A. APPLICABILITY:

This schedule applies to all separately metered single family residential water services.

B. TERRITORY:

This schedule applies everywhere the City of Palo Alto provides water services.

C. RATES:

Monthly Service Charge:	Per Meter Per Month
For 5/8-inch meter	$ 16.77~~03~~
For 3/4 inch meter	~~21~~22.60~~50~~
For 1 inch meter	~~32~~34.26~~45~~
For 1 1/2 inch meter	~~59~~63.40~~83~~
For 2-inch meter	~~92~~98.37~~67~~
For 3-inch meter	~~196~~209.11~~70~~
For 4-inch meter	~~350~~372.31~~00~~
For 6-inch meter	~~716~~762.81~~82~~
For 8-inch meter	~~1,319~~1,403.94~~07~~
For 10-inch meter	~~2,085~~2,219.92~~57~~
For 12-inch meter	~~2,742~~2,919.34~~56~~

Commodity Rate: (To be added to Service Charge and applicable to all pressure zones.)

Per Hundred Cubic Feet (ccf) Per Month	All Pressure Zones
Tier 1 usage	$~~56~~.30~~93~~
Tier 2 usage (All usage over 100% of Tier 1)	8.82~~38~~

Drought Surcharges:

A drought surcharge will be added to the Customer's applicable Commodity Rate for Tier 1 and Tier 2 water usage when the City Council has determined that a water reduction level is in effect for the City as described in Section D.3. The drought surcharges in the table below are measured in dollars per hundred cubic feet (ccf).

Water Usage Reduction level	**Level 1 (10/15%)**	**Level 2 (20%)**	**Level 3 (25%)**
Tier 1	0.20~~19~~	0.43~~39~~	0.64~~59~~
Tier 2	0.58~~55~~	1.21~~14~~	1.85~~76~~

Temporary unmetered service to residential subdivision developers, per connection $6.00

D. SPECIAL NOTES:

1. Calculation of Cost Components

The actual bill amount is calculated based on the applicable rates in Section C above and adjusted for any applicable discounts, surcharges and/or taxes. On a customer's bill statement, the bill amount may be broken down into appropriate components as calculated under Section C.

2. Calculation of Usage Tiers

Tier 1 water usage shall be calculated and billed based upon a level of 0.2 ccf per day rounded to the nearest whole ccf, based on meter reading days of service. As an example, for a 30 day bill, the Tier 1 level would be 0 through 6 ccf. For further discussion of bill calculation and proration, refer to Rule and Regulation 11.

3. Drought Surcharge

During period of water shortage or restrictions on local water use, the City Council may, by resolution, declare the need for citywide water conservation at the 10/15%, 20% or 25% level. While such a resolution is in effect, a drought surcharge will apply. The purpose of the Drought Surcharge is to recover revenues lost as a result of reduced consumption.

{End}

WATER SERVICE FROM FIRE HYDRANTS

UTILITY RATE SCHEDULE W-2

A. APPLICABILITY:

This schedule applies to all water taken from fire hydrants for construction, maintenance, and other uses in conformance with provisions of a Hydrant Meter Permit.

B. TERRITORY:

This schedule applies everywhere the City of Palo Alto provides water services.

C. RATES:

1. Monthly Service Charge.

   METER SIZE

   5/8 inch 50.00
   3 inch 125.00

2. Commodity Rate: (per hundred cubic feet) ..... $~~6~~7.32~~92~~

3. Drought Surcharges:

   A drought surcharge will be added to the Customer's applicable Commodity Rate when the City Council has determined that a water reduction level is in effect for the City as described in Section D.5. The drought surcharges in the table below are measured in dollars per hundred cubic feet (ccf).

Water Usage Reduction level	**Level 1 (10/15%)**	**Level 2 (20%)**	**Level 3 (25%)**
Surcharge	0.26~~24~~	0.53~~49~~	0.77~~72~~

D. SPECIAL NOTES:

1. Monthly charges shall include the applicable monthly service charge in addition to usage billed at the commodity rate.

2. Any applicant using a hydrant without obtaining a Hydrant Meter Permit or any permittee using a hydrant without a Hydrant Meter Permit shall pay a fee of $50.00 for each day of such use in

addition to all other costs and fees provided in this schedule. A hydrant permit may be denied or revoked for failure to pay such fee.

3. A meter deposit of $750.00 may be charged any applicant for a Hydrant Meter Permit as a prerequisite to the issuance of a permit and meter(s). A charge of $50.00 per day will be added for delinquent return of hydrant meters. A fee will be charged for any meter returned with missing or damaged parts.

4. Any person or company using a fire hydrant improperly or without a permit, or who draws water from a hydrant without a meter installed and properly recording usage shall, in addition to all other applicable charges be subject to criminal prosecution pursuant to the Palo Alto Municipal Code.

5. During period of water shortage or restrictions on local water use, the City Council may, by resolution, declare the need for citywide water conservation at the 10/15%, 20% or 25% level. While such a resolution is in effect, a drought surcharge will apply. The purpose of the Drought Surcharge is to recover revenues lost as a result of reduced consumption.

{End}

WATER SERVICE FROM FIRE HYDRANTS

UTILITY RATE SCHEDULE W-2

A. APPLICABILITY:

This schedule applies to all water taken from fire hydrants for construction, maintenance, and other uses in conformance with provisions of a Hydrant Meter Permit.

B. TERRITORY:

This schedule applies everywhere the City of Palo Alto provides water services.

C. RATES:

1. Monthly Service Charge.

   METER SIZE

   5/8 inch 50.00
   3 inch 125.00

2. Commodity Rate: (per hundred cubic feet) ..... $~~6~~7.32~~92~~

3. Drought Surcharges:

   A drought surcharge will be added to the Customer's applicable Commodity Rate when the City Council has determined that a water reduction level is in effect for the City as described in Section D.5. The drought surcharges in the table below are measured in dollars per hundred cubic feet (ccf).

Water Usage Reduction level	**Level 1 (10/15%)**	**Level 2 (20%)**	**Level 3 (25%)**
Surcharge	0.26~~24~~	0.53~~49~~	0.77~~72~~

D. SPECIAL NOTES:

1. Monthly charges shall include the applicable monthly service charge in addition to usage billed at the commodity rate.

2. Any applicant using a hydrant without obtaining a Hydrant Meter Permit or any permittee using a hydrant without a Hydrant Meter Permit shall pay a fee of $50.00 for each day of such use in

addition to all other costs and fees provided in this schedule. A hydrant permit may be denied or revoked for failure to pay such fee.

3. A meter deposit of $750.00 may be charged any applicant for a Hydrant Meter Permit as a prerequisite to the issuance of a permit and meter(s). A charge of $50.00 per day will be added for delinquent return of hydrant meters. A fee will be charged for any meter returned with missing or damaged parts.

4. Any person or company using a fire hydrant improperly or without a permit, or who draws water from a hydrant without a meter installed and properly recording usage shall, in addition to all other applicable charges be subject to criminal prosecution pursuant to the Palo Alto Municipal Code.

5. During period of water shortage or restrictions on local water use, the City Council may, by resolution, declare the need for citywide water conservation at the 10/15%, 20% or 25% level. While such a resolution is in effect, a drought surcharge will apply. The purpose of the Drought Surcharge is to recover revenues lost as a result of reduced consumption.

{End}

FIRE SERVICE CONNECTIONS

UTILITY RATE SCHEDULE W-3

A. APPLICABILITY:

This schedule applies to all public fire hydrants and private fire service connections.

B. TERRITORY:

This schedule applies everywhere the City of Palo Alto provides water services.

C. RATES:

1. Monthly Service Charges

Public Fire Hydrant	$5.00

Private Fire Service:

2-inch connection	$3.7943
4-inch connection	2123.4222
6-inch connection	6168.0363
8-inch connection	131144.9734
10-inch connection	236260.7020
12-inch connection	381421.1152

2. Commodity (To be added to Service Charge unless water is used for fire extinguishing or testing purposes.)

	Per Hundred Cubic Feet
All water usage	$10.00

D. SPECIAL NOTES:

1. Service under this schedule may be discontinued if water is used for any purpose other than fire extinguishing or testing and repairing the fire extinguishing facilities. Using hydrants and fire services for other purposes is illegal and will be subject to the commodity charge as noted above, fines, and criminal prosecution pursuant to the Palo Alto Municipal Code.

2. For a combination water and fire service, the general water service schedule shall apply.

3. Utilities Rule and Regulation No. 21 provides additional information on Automatic Fire Services.

4. Repairs and testing of fire extinguishing facilities are not considered unauthorized use of water if records and documentation are supplied by the customer.

{End}

RESIDENTIAL MASTER-METERED AND GENERAL NON-RESIDENTIAL WATER SERVICE

UTILITY RATE SCHEDULE W-4

A. APPLICABILITY:

This schedule applies to non-residential water service in the City of Palo Alto and its distribution area. This schedule is also applicable to multi-family residential customers served through a master meter.

B. TERRITORY:

This schedule applies everywhere the City of Palo Alto provides water services.

C. RATES:

Monthly Service Charge	Per Meter Per Month
For 5/8-inch meter	$ 16.77~~03~~
For 3/4-inch meter	~~21~~22.60~~50~~
For 1-inch meter	~~32~~34.26~~45~~
For 1 ½-inch meter	~~59~~63.40~~83~~
For 2-inch meter	~~92~~98.37~~67~~
For 3-inch meter	~~196~~209.11~~70~~
For 4-inch meter	~~350~~372.31~~00~~
For 6-inch meter	~~716~~762.81~~82~~
For 8-inch meter	1,~~319~~403.94~~07~~
For 10-inch meter	2,~~085~~219.92~~57~~
For 12-inch meter	2,~~742~~919.34~~56~~

Commodity Rates: (to be added to Service Charge)

Per Hundred Cubic Feet (ccf) Per Month	All Pressure Zones
Per ccf	$ ~~67~~.32~~92~~

Drought Surcharges:

A drought surcharge will be added to the Customer's applicable Commodity Rate when the City Council has determined that a water reduction level is in effect for the City as described in Section D.2. The drought surcharges in the table below are measured in dollars per hundred cubic feet (ccf).

Water Usage Reduction level	**Level 1 (10/15%)**	**Level 2 (20%)**	**Level 3 (25%)**
Surcharge	0.2624	0.4953	0.7772

D. SPECIAL NOTES:

1. Calculation of Cost Components

The actual bill amount is calculated based on the applicable rates in Section C above and adjusted for any applicable discounts, surcharges and/or taxes. On a customer's bill statement, the bill amount may be broken down into appropriate components as calculated under Section C.

2. Drought Surcharge

During period of water shortage or restrictions on local water use, the City Council may, by resolution, declare the need for citywide water conservation at the 10/15%, 20% or 25% level. While such a resolution is in effect, a drought surcharge will apply. The purpose of the Drought Surcharge is to recover revenues lost as a result of reduced consumption.

{End}

NON-RESIDENTIAL IRRIGATION WATER SERVICE

UTILITY RATE SCHEDULE W-7

A. APPLICABILITY:

This schedule applies to non-residential water service supplying dedicated irrigation meters in the City of Palo Alto and its distribution area.

B. TERRITORY:

This schedule applies everywhere the City of Palo Alto provides water services.

C. RATES:

Monthly Service Charge	Per Meter Per Month
For 5/8-inch meter	$ 16.77~~03~~
For 3/4-inch meter	~~21~~22.60~~50~~
For 1-inch meter	~~32~~34.26~~45~~
For 1 1/2 inch meter	~~59~~63.40~~83~~
For 2-inch meter	~~92~~98.37~~67~~
For 3-inch meter	~~196~~209.11~~70~~
For 4-inch meter	~~350~~372.31~~00~~
For 6-inch meter	~~716~~762.81~~82~~
For 8-inch meter	1,~~319~~403.94~~07~~
For 10-inch meter	2,~~085~~219.92~~57~~
For 12-inch meter	2,~~742~~919.34~~56~~

Commodity Rates: (to be added to Service Charge)

Per Hundred Cubic Feet (ccf) Per Month	All Pressure Zones
Per ccf	$ 8.72~~29~~

Drought Surcharges:

A drought surcharge will be added to the Customer's applicable Commodity Rate when the City Council has determined that a water reduction level is in effect for the City as described in Section D.2. The drought surcharges in the table below are measured in dollars per hundred cubic feet (ccf).

Water Usage Reduction level	**Level 1 (10/15%)**	**Level 2 (20%)**	**Level 3 (25%)**
Surcharge	0.5351	1.2518	12.0293

D. SPECIAL NOTES:

1. Calculation of Cost Components

The actual bill amount is calculated based on the applicable rates in Section C above and adjusted for any applicable discounts, surcharges and/or taxes. On a customer's bill statement, the bill amount may be broken down into appropriate components as calculated under Section C.

2. Drought Surcharge

During period of water shortage or restrictions on local water use, the City Council may, by resolution, declare the need for citywide water conservation at the 10/15%, 20% or 25% level. While such a resolution is in effect, a drought surcharge will apply. The purpose of the Drought Surcharge is to recover revenues lost as a result of reduced consumption.

{End}