



LOS ANGELES DEPARTMENT OF WATER AND
POWER

WATER SYSTEM RATE ACTION REPORT

Chapter 6: Revised Proposed Rate Plan

December 2015



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REVISED PROPOSED WATER RATE ACTION PLAN

6.1 SUMMARY

The Los Angeles Department of Water and Power (LADWP or the Department) is the nation's largest municipal utility and supplies water to nearly four million citizens of Los Angeles through the operation of over 7,200 miles of water transmission and distribution mains. In July 2015, LADWP published its rate action report based on the initial financial plan developed from the November 2014 version of the Department's budget. Subsequently, a FY 2015-16 budget was approved by the Board of Water and Power Commissioners (Board) and City Council (Council). In addition, LADWP has actively pursued discussions with the Ratepayer Advocate and other stakeholders. A revised financial plan¹ has now been developed to reflect the approved budget and other changes made in response to stakeholder input. This updated financial plan, provided in Appendix A, underlies the Department's revised proposed rate action plan.

The purpose of this chapter is to discuss the Department's revised proposed water service rate action plan and explain the changes between the revised proposed rates and the initial proposed rates² outlined in Chapter 5. This chapter will also provide detailed new rates for applicable customer classes. In developing the revised proposed rates, the Department has solicited feedback from the public, the Ratepayer Advocate, and other external stakeholders, and revised the rate design where applicable.

The new rates are proposed to take effect beginning April 1, 2016. To account for the delay from the start of the current fiscal year, any shortfall will be recovered through the revenue decoupling mechanism in the Base Rate Revenue Target Adjustment (BRRTA) factor over a 2-year period (January 1, 2017 – December 31, 2018).

6.1.1 Major Changes between the Initial and Revised Rate Design

The revised financial plan resulted in several major changes between the initial and revised proposed rates. Figure 1 provides a high-level summary of those changes. In developing this revised proposal, LADWP continues to strike a balance between meeting regulatory requirements, providing reliable service, planning for a sustainable and secure water supply, and maintaining reasonable rates.

¹ Financial Plan Case No. 94.

² The initial proposed rates are based on Financial Plan Case No.33 and Case No. 77a, where applicable.

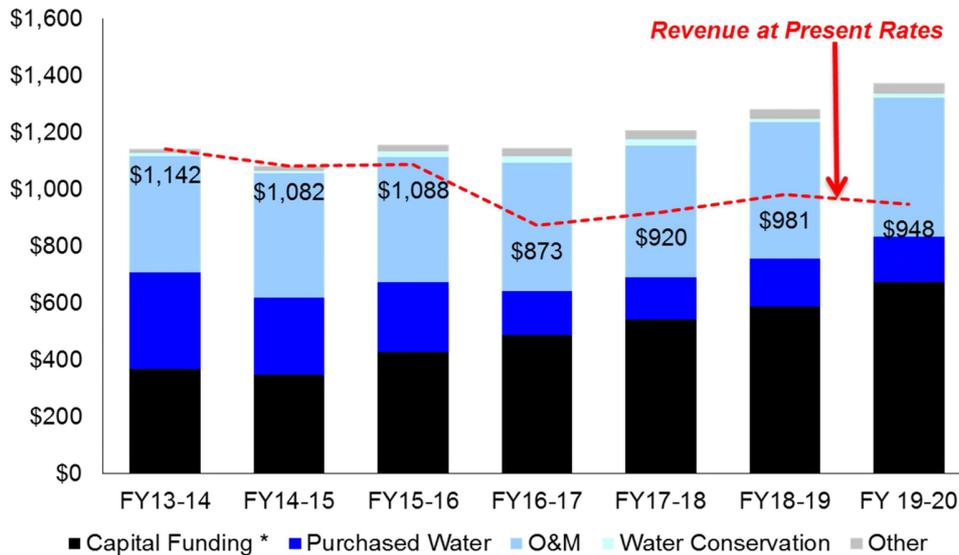
Figure 1: Major Changes Reflected in the Revised Proposed Rate Design

Change	Description
Delayed Rate Action Effective Date	The revised proposed rates will now be effective April 1, 2016.
Approved FY 2015-16 Water System Budget	The Board approved Water System budget is now the basis for the proposed financial plan.
Owens Lake Dust Mitigation Program	The Eastern Sierra regulatory compliance and Owens Lake dust mitigation capital and O&M budgets have been updated to include Phases 9 and 10 of the Owens Lake Dust Mitigation Program and also reflect additional estimated interest rate costs expected to be incurred as a result of delayed implementation of securitization.
Reduced Consumption Forecast	Customer demand has fallen in alignment with Mayoral Executive Directive No. 5. The new rates reflect a revised estimated decrease in overall water consumption across Single-Dwelling Unit and Multi-Dwelling Unit Residential customer classes.
Securitization	Implementation of securitization has been delayed from July 1, 2015 to July 1, 2016, requiring the Department to finance some projects through more expensive debt.
Updated FY 2014-15 Financial Results	Actual financial results for FY 2014-15 have been revised as of June 30, 2015.
Proposed Rates	Rates for the five-year rate action are developed to recover the revenue requirement associated with providing service to each customer class and tier while recognizing the increasing cost of water supply at higher levels of usage. The methodology for calculating the rates has not changed, however the assumptions and numbers used to calculate the revised rates reflect the underlying assumptions of the revised financial plan.

6.1.2 Revised Five-Year Revenue Requirement

This chapter discusses the impact of the financial plan modifications on the five-year revenue requirement. The core cost drivers have not changed, although in the revised proposed rate design, the rates for recovering some of those costs have been updated. Figure 2 illustrates the revised potential shortfall the Department expects with no rate increase over the proposed rate period.

Figure 2: Revenue Shortfall Based on Revised Financial Plan (Given No Rate Increase, Including Purchased Water)



Overall, the total revenue requirement for the five years has increased by \$100 million with a total average revenue requirement increase of \$20 million per year over the average annual initial rate increase presented to the Board in July 2015. The revised average annual rate increase is 5.26%. Figure 3 and Figure 4 illustrate the initial and revised proposed system average revenue and rate changes by major cost category. The revised presentation of the revenue requirement reflects actual results for FY 2014-15 as of June 2015, the Board approved FY 2015-16 budget and other recent updates to the approved budget. It also presents the revised revenue requirement in the context of the pass through factors established in the draft Water Rate Ordinance provided to the RPA on August 7, 2015.

Figure 3: Initial Year-Over-Year (YOY) Rate Driver Breakdown of Proposed Revenue Requirement Increase

Rate Driver	Average Annual Revenue Requirement Increase (\$M)	Average Annual System Retail Rate Increase (Cents/HCF)	Average Annual Rate Increase (%)
Conservation	-6 ³	0.13	-0.50%
Groundwater	5	0.54	0.40%
Stormwater	2	0.18	0.13%
Recycled Water	4	1.31	0.35%
Owens Valley	4	0.32	0.35%
Water Quality	22	0.36	2.06%
Infrastructure – Base	16	-0.04	1.96%

³ Many investments in conservation programs are eligible for lower financing costs through securitization, resulting in a reduction in revenue requirement for conservation projects.

Rate Driver	Average Annual Revenue Requirement Increase (\$M)	Average Annual System Retail Rate Increase (Cents/HCF)	Average Annual Rate Increase (%)
Infrastructure – Pass-Through	44	4.32	3.72%
Total before Purchased Water	90	7.13	8.48%
Purchased Water	-44	-1.24	-3.53%
Total	46	5.89	4.96%

Figure 4: Revised Year-Over-Year (YOY) Rate Driver Breakdown of Proposed Revenue Requirement Increase

Rate Driver	Average Annual Revenue Requirement Increase (\$M)	Average Annual System Retail Rate Increase (Cents/HCF)	Average Annual Rate Increase (%)
WSCA - Water Conservation	-1	0.33	-0.06%
WSCA - Water Recycling	-2	0.03	-0.18%
WSCA - Stormwater	-2	0.01	-0.15%
WSCA - LA Aqueduct	-3	0.22	-0.28%
WSCA - Ground Water	1	0.76	-0.05%
Owens Valley	13	1.48	1.07%
Water Quality	21	0.87	1.83%
WSCA - Purchased Water	-21	0.79	-1.92%
Water Infrastructure - Pass Thru	37	2.93	3.10%
Water Infrastructure - Base	23	1.54	1.90%
Total	66	8.95	5.26%

6.1.3 Revised Proposed Rates

Figure 5, Figure 6 and Figure 7 show the Department’s revised proposed rates for the five-year rate action for three major customer classes: Single-Dwelling Unit Residential, Multi-Dwelling Unit Residential and Commercial, Industrial, Governmental and Temporary Construction. The rates for each class are contained in separate Schedules. Additional detail can be found in section 6.8, Revised Proposed Rate Design.

Figure 5: Revised Proposed Single-Dwelling Unit Residential Rates (Schedule A)

Fiscal Year	Proposed				
	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.55	\$5.09	\$4.96	\$5.13	\$5.48
Tier 2	\$6.77	\$6.82	\$6.72	\$6.95	\$7.26
Tier 3	\$7.52	\$7.57	\$7.62	\$7.90	\$8.58
Tier 4	\$7.52	\$7.57	\$7.80	\$9.41	\$10.58

Figure 6: Revised Proposed Multi-Dwelling Unit Residential Rates (Schedule B)

Fiscal Year	Proposed				
	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.55	\$5.09	\$4.96	\$5.13	\$5.48
Tier 2	\$9.27	\$8.58	\$8.13	\$8.36	\$8.67

Figure 7: Revised Proposed Commercial, Industrial and Governmental and Temporary Construction Rates (Schedule C)

Fiscal Year	Proposed				
	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.55	\$5.09	\$4.96	\$5.13	\$5.48
Tier 2	\$8.27	\$8.32	\$8.23	\$8.46	\$8.76

Recycled Water Service (Schedule D) will continue to be contract-based. Private Fire Service (Schedule E) service availability charges will continue to change based on the average historical rate of inflation. The revised proposed Publicly-Sponsored Irrigation; Recreational; Agricultural, Horticultural, and Floricultural Uses; Community Gardens and Youth Sports Service Rates (Schedule F) will continue to increase smoothly over the five-year rate period to align revenue with the cost of service, as shown in Figure 8.

Figure 8: Revised Proposed Publicly-Sponsored Irrigation; Recreational; Agricultural, Horticultural, and Floricultural Uses; Community Gardens and Youth Sports Service Rates (Schedule F)

Fiscal Year	Revised Proposed Rates				
	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20 ⁴
Tier 1	\$2.11	\$2.83	\$3.50	\$4.36	\$5.48
Tier 2	\$6.78	\$8.26	\$8.18	\$8.43	\$8.76

6.2 UPDATED FY 2014-15 FINANCIAL RESULTS

The revised proposed financial plan and rates also reflect the updated FY 2014-15 financial results, which are now based on close to final audited accounting records. Where applicable, the presentation of budget data reflects updated actual results as of June 30, 2015.

⁴ In year five, Schedule F rates will be the same as Schedule C rates.

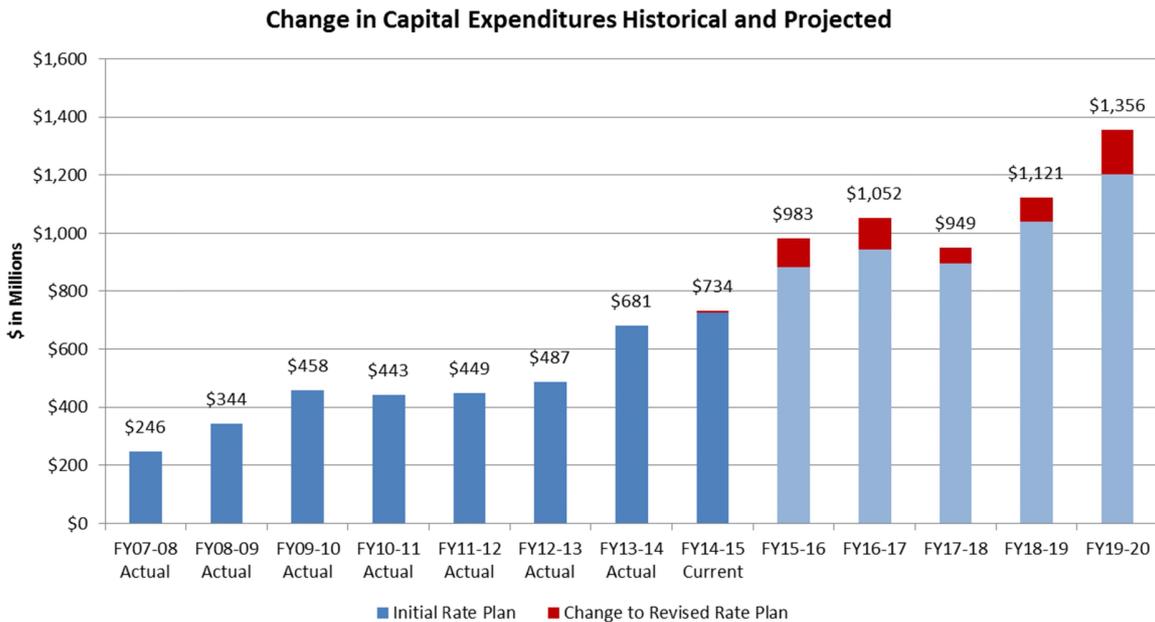
6.3 APPROVED FY 2015-16 WATER SYSTEM BUDGET

The revised proposed rates reflect the final approved budget for FY 2015-16. The only significant change between the initial and approved FY 2015-16 budget is a revised Eastern Sierra regulatory compliance and Owens Lake dust mitigation budget that includes Phase 9 and Phase 10 of the Owens Valley Master Plan.

Based on the final budget, proposed capital spending will increase by an average of \$124 million per year over the next five years (FY 2015-16 through FY 2019-20). The average annual capital spending has increased \$99 million from the initial rate plan; for FY 2015-16, the projected capital expenditures reflected in the revised proposed rates are \$98 million more than in the initial rate plan. Figure 9 shows the change in planned capital expenditures.

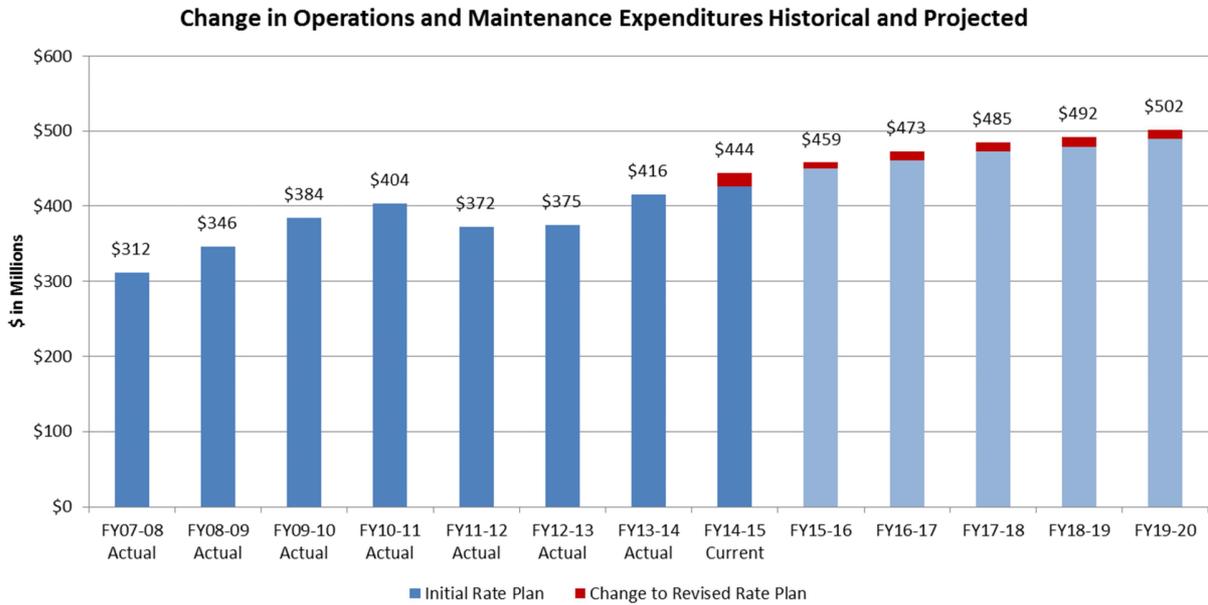
In addition, the approved FY 2015-16 budget includes additional water conservation.

Figure 9: Change in Capital Expenditures Historical and Projected



The revised O&M expenses, shown in Figure 10, increase at an average of \$11 million per year through FY 2019-20 (excluding purchased water). The average annual O&M spending has increased \$12 million from the initial rate plan; for FY 2015-16, the revised projected O&M expenditures reflected in the revised proposed rates are \$9 million more than the initial proposed rate plan.

Figure 10: Change in Operations and Maintenance Expenditures Historical and Projected



6.4 OWENS LAKE DUST MITIGATION PROGRAM

In December 2014, the Department signed a historic Agreement with the Great Basin Unified Air Pollution Control District. The Agreement stems from the recognition that the enormous Owens Lake Dust Mitigation Program that LADWP has implemented on more than 45 square miles of the lakebed over the past 15 years at a cost of over \$1.6 billion has eliminated more than 90% of the excess blowing dust. The agreement affords the Department:

- Increased use of waterless dust control measures;
- Certainty as to the full extent of Water System liability; and
- Anticipated savings of 3 billion gallons of water per year.

With this agreement, the Water System will complete Phases 9 and 10 of the Owens Lake Dust Mitigation Program and make improvements to the existing system to conserve water. The costs for these phases were not included in the initial proposed rates, but are reflected in the revised proposed rates. Figure 11 illustrates the revised projected costs associated with dust mitigation efforts for an average annual total expenditure increase of \$114 million or 121% over the five years. A portion of this work will be securitized at a lower interest rate, reducing the costs immediately incurred by ratepayers.

Figure 11: Eastern Sierra Regulatory Compliance and Owens Lake Dust Mitigation Initial and Revised Proposed Expenditures for FY 2014-15 through FY 2020-21

(\$ Millions)	Current	Initial Proposed Rate Period Costs						Five-Year Total	FY 2020-21
		FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20		
O&M	\$32.3	\$31.0	\$34.2	\$34.9	\$35.9	\$36.2	\$172.2	\$36.4	
Capital	-	\$73.3	\$30.8	\$66.3	\$62.1	\$68.4	\$300.9	\$65.1	
Total	\$32.3	\$104.3	\$65.0	\$101.2	\$98.0	\$104.6	\$473.1	\$65.1	
	Current	Revised Proposed Rate Period Costs						Five-Year Total	FY 2020-21
		FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20		
O&M	\$29.5	\$38.9	\$45.2	\$46.2	\$47.4	\$47.8	\$225.5	\$48.1	
Capital	-	\$192.1	\$139.3	\$118.5	\$148.9	\$220.3	\$819.1	\$218.9	
Total	\$29.50	\$231.00	\$184.50	\$164.70	\$196.30	\$268.10	\$1,044.60	\$267.00	
	Current	Difference Between Initial and Revised Costs						Five-Year Total	FY 2020-21
		FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20		
O&M	-\$2.80	\$7.90	\$11.00	\$11.30	\$11.50	\$11.60	\$53.30	\$11.70	
Capital	-	\$118.80	\$108.50	\$52.20	\$86.80	\$151.90	\$518.20	\$153.80	
Total	-\$2.80	\$126.70	\$119.50	\$63.50	\$98.30	\$163.50	\$571.50	\$201.90	

The new investment in waterless dust control methods is expected to be revenue neutral in the long run as the amount of purchased water required to support dust mitigation efforts is expected to decrease. Most of the Owens Lake Dust Mitigation Program costs will be financed through traditional debt and, when possible, securitization. Securitization based financing helps to reduce the impact on the system average retail rate increase for customers.

6.5 REVISED WATER CONSUMPTION FORECAST

In October of 2014, Mayor Eric Garcetti issued Mayoral Executive Directive No. 5 (ED 5). The terms of ED 5 include:

- A reduction in per capita potable water use of 20% by 2017;
- A reduction in the Department's purchase of imported potable water of 50% by 2024; and
- The creation of an integrated water strategy that increases local water supplies and that improves water security in the context of climate change and seismic vulnerability.

The ratepayers of Los Angeles have effectively abided by the guidelines of ED 5 and have voluntarily decreased their overall water consumption. The Department's initial proposed rates were based on a forecasted 20% decrease in total per capita water sales over three years.

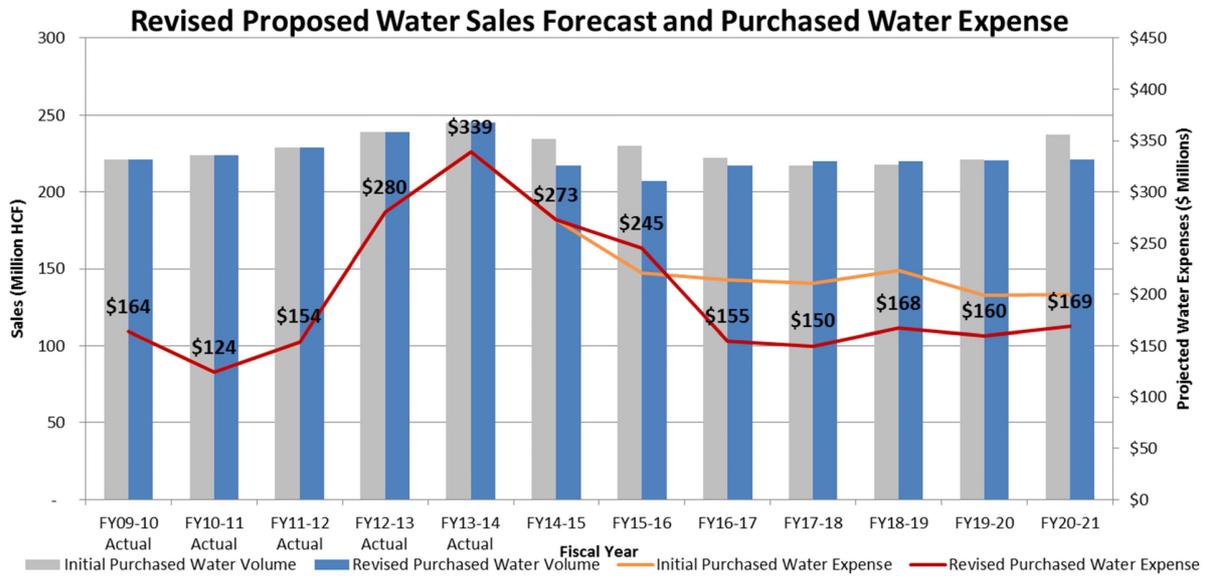
However, based on more current information, water savings efforts throughout the city are exceeding initial forecasts. Therefore, the Department's revised proposed rates are based on a revised water sales forecast, which reflects an additional near-term decrease in Single-Dwelling Unit and Multi-Dwelling Unit Residential customer consumption. The initial and revised sales volumes are illustrated in Figure 12.

Figure 12: Initial and Revised Projected Water Sales Forecast

Million HCF	Current	Projected				
Fiscal Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Initial	234.3	229.9	222.5	217.1	218.0	221.0
Revised	217.2	207.4	217.4	219.9	220.0	220.5
Difference	-17.1	-22.5	-5.1	2.8	2.0	-0.5

The revised purchased water expense projection has also decreased over the five-year rate action timeframe reflecting lower forecasted consumption. Figure 13 illustrates the forecasted purchased water expense and consumption.

Figure 13: Initial and Revised Proposed Water Sales Forecast and Related Purchased Water Expense



6.6 SECURITIZATION

As noted in Chapter 3, the Department will benefit from utilizing securitization to finance a substantial portion of capital projects over the next five years. In October 2013, the California legislature enacted AB 850 which expanded the financing powers of a Joint Powers Authority (JPA) by authorizing JPAs to issue “rate reduction bonds” secured by utility project charges to finance water conservation, reclamation and mitigation projects. The Department’s assumptions estimate that the interest rate for securitization will be 25 basis points lower than interest rates for traditional Department debt.

The initial proposed rates assumed securitization was utilized to finance certain projects beginning July 1, 2015. However, development of the revised proposed rates assumes securitization will be implemented on July 1, 2016, requiring the Department to finance several core projects using traditional forms of debt for an additional twelve months. Overall, the revised non-securitized and securitized borrowing will increase by \$127 M or 3.5% over the amount in the initial financial plan for the next five years. Figure 14 illustrates the initial and revised expected borrowing plan for the Water System.

Figure 14: LADWP Initial and Revised Projected Securitization and Non-Securitization Borrowing

(\$Millions)	Historical			Initial Projection					
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Five-Year Total
LADWP Borrowing (Non-Securitized)	\$352	\$509	\$436	\$112	\$233	\$259	\$416	\$395	\$1,414
Borrowing for Securitization	\$0	\$0	\$0	\$409	\$475	\$427	\$409	\$542	\$2,261
Total	\$352	\$509	\$436	\$511	\$708	\$686	\$825	\$937	\$3,675
	Historical			Revised Projection					
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Five-Year Total
LADWP Borrowing (Non-Securitized)	\$352	\$509	\$399	\$749	\$334	\$359	\$569	\$703	\$2,715
Borrowing for Securitization	\$0	\$0	\$0	\$0	\$428	\$320	\$335	\$393	\$1,476
Total	\$352	\$509	\$399	\$749	\$762	\$679	\$904	\$1,096	\$4,191
	Historical			Difference Between Initial and Revised Projections					
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Five-Year Total
LADWP Borrowing (Non-Securitized)	-	-	-\$37	\$637	\$101	\$100	\$153	\$308	\$1,301
Borrowing for Securitization	-	-	-	-\$409	-\$47	-\$107	-\$74	-\$149	-\$785
Total	-	-	-\$37	\$238	\$54	-\$7	\$79	\$159	\$516

In addition, the delayed implementation of the new rates and securitization means that the Department will approach its debt capitalization ceiling sooner. While the Board approved capitalization ratio of 65% will not be exceeded, the Department's revenue requirement increased slightly to keep debt levels near the 65% threshold. LADWP will continue to monitor its financial metrics closely and cash fund capital projects or reduce spending to keep debt near the 65% capitalization ratio.

6.7 OTHER MISCELLANEOUS CHANGES

Several other additional changes that have a minor impact on rates are reflected in the revised financial plan and proposed rates.

- An update of \$165 million in the Water System’s state loan for a revised total loan amount of \$390 million as shown in Figure 15.

Figure 15: Updated State Loan Details

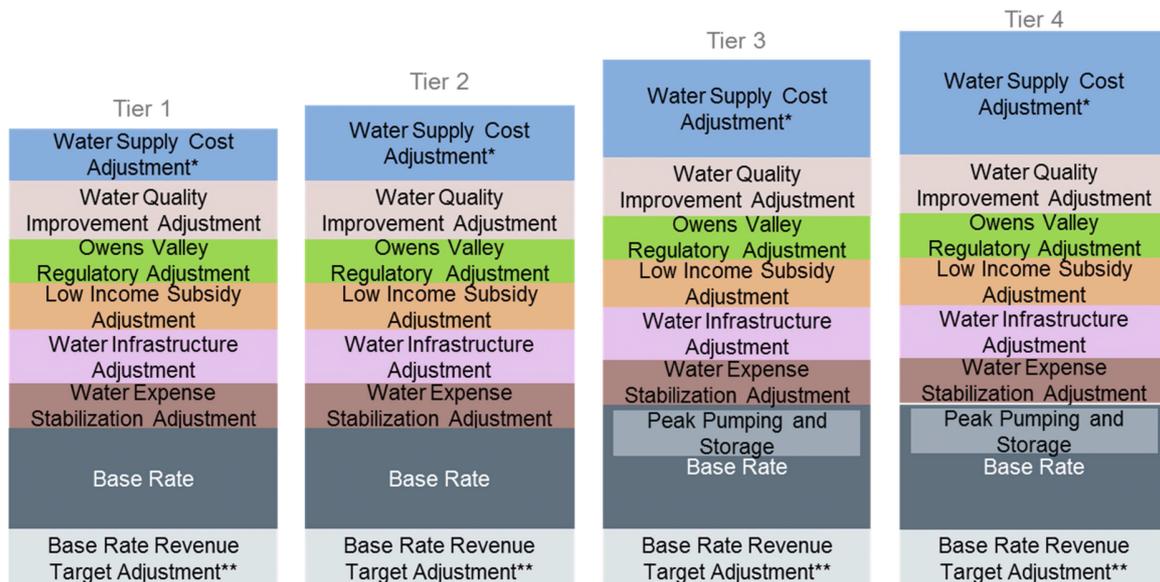
(\$ Million)	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	Five-Year Total
Revised State Loan	\$151	\$81	\$72	\$53	\$34	\$390
Preliminary State Loan	\$112	\$56	\$36	\$31	\$20	\$225

- Effective date of January 1, 2017 for Water Expense Stabilization Adjustment Factor (WESA) collection for the emergency fund as compared to July 1, 2015 in the initial financial plan.
- Updated WESA balance to reflect a target of \$50 million from FY 2016-17 forward as compared to starting July 1, 2015 in the initial financial plan.
- A \$25 million reduction of water recycling capital expense.

6.8 REVISED PROPOSED RATE DESIGN

The revised proposed rate design is expected to recover the necessary costs for operating and maintaining the Water System. The Department will continue to follow the same proposed tiered structure rate design outlined in Chapter 5 with fairly minor adjustments to proposed rates. Figure 16 illustrates the proposed rate design for Single-Dwelling Unit Residential Customers presented in Chapter 5, which has not been changed. The revised rates, which reflect the final Board approved FY 2015-16 budget, revised revenue requirement and other minor changes discussed above are discussed further in this section.

Figure 16: Single-Dwelling Unit Residential Customer Rate Structure



*Includes costs for all major supply sources including conservation and recycled water.

**Base Rate Revenue Target Adjustment could be positive (under-collection) or negative (over-collection).

Note: For simplification, the Water Security Adjustment factor is consolidated with the Water Quality factor (or base rates depending on the cost component).

6.8.1 Water Supply Cost Adjustment (WSCA)

As discussed in Chapter 5, LADWP introduced the WSCA in response to the San Juan Capistrano decision to align, at a more granular level, the costs of water supply to the rates for each tier in each customer class. The WSCA is designed based on the economic premise of cost causation - customers who cause costs should pay for these costs. Residential customers are given an allocation of water considering lot size, season, and temperature zone. Since water use greater than this allocated amount requires higher cost water supplies, tier rates increase with higher levels of demand. Additional details can be found in Chapter 5.

The structure of the WSCA will remain unchanged; however, due to the revised water consumption and water supply price forecasts, the specific supply costs allocated to customer classes and tiers have changed. These costs will be updated semi-annually throughout the rate period to reflect each time period's forecasted cost, available supply and usage. The WSCA will be adjusted semi-annually to ensure customers pay only the actual costs of water supply. Figure 17 illustrates the revised WSCA calculation for the revised proposed rates based on the

revised projected supply costs and volumes and customer usage for the period beginning in July of FY 2016-17.⁵

Figure 17: Revised Proposed Water Supply Cost Calculation (Effective July of FY 2016-17)

Water Consumption (HCF)				
Schedule A	38,380,061	22,013,855	17,367,667	9,200,484
Schedule B	59,357,616	8,831,030		
Schedule C	44,381,885	9,343,966		
Total	142,119,562	40,188,851	17,367,667	9,200,484
Consumption (HCF %)	(68.0%)	(19.2%)	(8.3%)	(4.4%)

Water Supply Sources, Cost \$/HCF, (Percent of Total Supply)	LA Aqueduct, \$0.53 (53%)	Groundwater, \$1.54 (15%)	MWD, \$2.44 (29%)	Recycled Water, \$2.74 (3%)
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Water Supply Price (\$/HCF)	Tier 1 \$0.75	Tier 2 \$2.42	Tier 3 \$2.45	Tier 4 \$2.62
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In addition, a pro-rated amount of water conservation costs and the over/under balancing account from prior years are added to determine the total amount of the WSCA as shown in Figure 18.

Figure 18: Revised Proposed Water Supply Cost Adjustment Factor Calculation (Effective July of FY 2016-17)

	Tier 1	Tier 2	Tier 3	Tier 4
Water Supply Cost	\$0.750	\$2.424	\$2.445	\$2.616
Water Conservation Costs	\$0.104	\$0.104	\$0.104	\$0.104
Over/Under Balancing Account	\$0.423	\$0.423	\$0.423	\$0.423
Total WSCA Factor	\$1.277	\$2.951	\$2.972	\$3.143

The costs of the various sources of supply will continue to be calculated based on LADWP's cost to provide the specific water supply, divided by the forecasted hydrologic supply (in HCF) of the specific source. A summary of the initial and revised forecasted unit costs for each source of

⁵ FY 2016-17 is the first full fiscal year with the proposed new rate structure in place.

supply are summarized in Figure 19⁶. Note that due to the timing of projects for specific sources and projected supply amounts, these unit costs do not follow a uniform pattern over the five-year period. Appendix B provides the revised data and calculations for the WSCA factor for each year of the rate action period. The projected revised proposed costs for each source of supply shown in Figure 19 are based on an average projected supply cost as of July and as of January for each fiscal year.

Figure 19: Summary of Costs for Each Water Supply Source (Average of July and January Projections)

	Initial Proposed Costs				
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Groundwater Pumping	\$4.14	\$4.10	\$4.18	\$3.72	\$1.40
LA Aqueduct	\$0.91	\$0.69	\$0.64	\$0.60	\$0.60
MWD	\$2.36	\$2.30	\$2.42	\$2.50	\$2.87
Recycled Water	\$2.21	\$2.51	\$2.63	\$4.16	\$4.90
	Revised Proposed Costs				
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Groundwater Pumping	\$1.43	\$1.48	\$1.34	\$1.34	\$1.15
LA Aqueduct	\$0.64	\$0.53	\$0.55	\$0.56	\$0.58
MWD	\$2.22	\$2.49	\$2.64	\$2.76	\$3.07
Recycled Water	\$1.76	\$2.49	\$2.80	\$4.40	\$5.21

The changes in cost per HCF for each supply source are largely due to the anticipated changes in production volumes available to meet the new consumption forecast. The reallocation of consumption across water sources affects the unit cost of water for that source.

Since water supply costs are recovered through an adjustment factor, customers will only pay for the costs actually incurred. If the production volumes of a source is higher than forecast and forecasted costs do not change, the WSCA will be reduced in the future to credit customers back revenue from any over-collected costs.⁷

⁶ The WSCA is updated semi-annually. Values shown here are an average unit cost of the July and January WSCA forecasted estimate for each fiscal year.

⁷ If the production volume is less than forecast and costs do not change, the WSCA could be adjusted upward in the future to offset any shortfall in cost recovery.

6.8.2 Peak Pumping and Storage

Pumping and storage of water is a standard aspect of a water utility system for meeting both base and peak demand. However, the amount of customer demand can significantly impact the level of required pumping and storage. As noted in Chapter 5, the initial proposed rates were based on an earlier calculation of peak pumping and storage - \$0.22 per HCF; the revised proposed rates shown in this chapter are based on the \$0.228 peaking pumping and storage calculation shown in Chapter 5 as reflected in Figure 20.

Figure 20: Calculation of Peak Pumping and Storage Costs (Effective July of FY 2016-17)

			Total	Percent Applied	Applied to Peak
Storage	Capital		\$0.180	50%	\$0.090
	O&M		\$0.090	100%	\$0.090
Total Storage					\$0.180
Pumping	O&M Total		\$0.110		
	O&M Power	50.4%	\$0.0554	0%	\$0.000
	O&M Non-Power	49.6%	\$0.0546	50%	\$0.027
	Capital		\$0.042	50%	\$0.022
Total Pumping					\$0.055
Total Peak Pumping and Storage					\$0.228

The specific peak pumping and storage costs per HCF for each applicable rate schedule and tier continue to be derived based on the total costs and consumption applicable to each schedule and tier as outlined in chapter 5 and shown in Figure 21.

Figure 21: Distribution of Peak Pumping and Storage Costs across Customer Rate Schedules

$$\begin{aligned} \text{Schedule A Tiers 3\&4 Peak Pumping and Storage Costs} &= \frac{\text{Schedule A Total Volume} * \$0.228/\text{HCF}}{(\text{Sch. A Tier 3} + \text{Sch. A Tier 4 Usage})} \\ \text{Schedule B Tier 2 Peak Pumping and Storage Costs} &= \frac{\text{Schedule B Total Volume} * \$0.228/\text{HCF}}{(\text{Sch. B Tier 2})} \\ \text{Schedule C Tier 2 Peak Pumping and Storage Costs} &= \frac{\text{Schedule C Total Volume} * \$0.228/\text{HCF}}{(\text{Sch. C Tier 2})} \end{aligned}$$

The resulting peak pumping and storage portions of the base rate calculated for each customer schedule and tier are shown in Figure 22. The peak pumping and storage component of base rates reflects the revised total and tier volumes forecasted for each rate schedule.

Figure 22: Initial and Revised Peak Water Pumping and Storage Component of Base Rates (Effective July of FY 2016-17)

Initial Proposed Peak Pumping and Storage				
Schedule	Tier			
	Tier 1	Tier 2	Tier 3	Tier 4
Schedule – A	\$0.000	\$0.000	\$0.727	\$0.727
Schedule – B	\$0.000	\$2.433		
Schedule – C	\$0.000	\$1.461		
Revised Proposed Peak Pumping and Storage				
Schedule	Tier			
	Tier 1	Tier 2	Tier 3	Tier 4
Schedule – A	\$0.000	\$0.000	\$0.746	\$0.746
Schedule – B	\$0.000	\$1.760		
Schedule – C	\$0.000	\$1.499		
Percent Difference Between Initial and Proposed Peaking Pumping and Storage				
Schedule	Tier			
	Tier 1	Tier 2	Tier 3	Tier 4
Schedule – A	0.00%	0.00%	2.61%	2.61%
Schedule – B	0.00%	-27.66%		
Schedule – C	0.00%	2.60%		

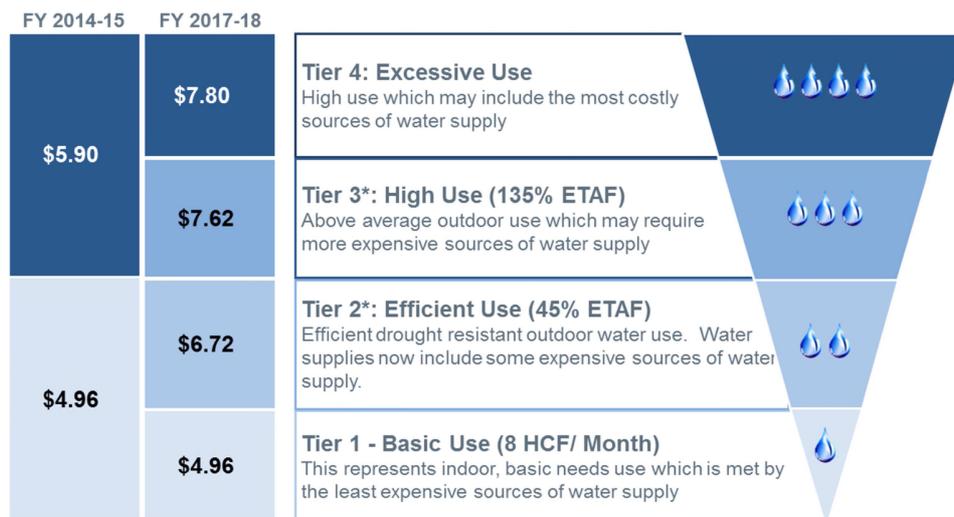
6.8.3 Changes to Evapotranspiration Adjustment Factors

As discussed in Chapter 5, the Department has considered various recommendations to adjust the preliminary proposed evapotranspiration adjustment factors (ETAFs) for the five-year rate period. At this time, the Department proposes not to change the proposed ETAF breakpoints in the revised rate plan. LADWP is proposing several important rate design changes including expansion to four tiers for Single-Dwelling Unit Residential customers, significant reductions in allocations to reflect additional conservation and the new WSCA factor to align water supply costs and usage among customer classes and rate tiers. The proposed ETAFs were designed to help balance the implications of these changes, by providing important conservation signals. For example, LADWP notes that the ETAF California standard for drought tolerant landscape is 55%; however, given the extreme drought LADWP has proposed using a 45% ETAF for tier 2. Given the extent and inter-relation of these improvements to the rate design, the Department proposes to maintain the original proposed ETAFs.

As the Department observes how customer consumption patterns manifest under the revised proposed rates, it is possible the Department may revisit the proposed ETAF breakpoints at a later time. However, due to the complexities of unit cost recovery and the uncertain nature of

customer consumption patterns, it is the Department’s opinion, that for the next five years, rates should continue to be designed with the initially proposed ETAFs. However, LADWP will work with the RPA to review the ETAFs during the post year two check-in period. Figure 23 illustrates the initially proposed ETAFs and the revised corresponding tier rates.

Figure 23: Single-Dwelling Unit Residential Customer Proposed Tier Water ETAF



*Tier 2 and 3 allotments would also vary based on temperatures zones and lot size.

6.8.4 Revised Proposed Rate Design

The revised proposed rates for each tier within the three major customer classes (Schedules A, B and C) are equal to the total of the base rates, including the applicable portion of the peak pumping and storage component, and all adjustment factors. No changes are proposed to the rate structure presented in Chapter 5. However, the water rates for most of the customer classes and the application of several of the adjustment factors have been updated to accommodate the revised proposed revenue requirement, new consumption forecast and April 1, 2016 effective date for new rates. To account for the delay from the start of the current fiscal year, any shortfall will be recovered through the revenue decoupling mechanism in the Base Rate Revenue Target Adjustment (BRRTA) factor over a 2-year period (January 1, 2017 – December 31, 2018).

The WSCA and peak pumping and storage component of base rates will continue to differentiate the prices amongst tiers and customer classes; the WSCA will continue to be based on actual supply costs, supply volumes and customer usage. The Base Rate Revenue Target Adjustment (BRRTA) may also vary amongst the major customer groups, depending on the amount of over or under-collected revenue from the Department established base rate revenue targets for each major customer group. The calculation of each of the remaining adjustment factors (WQIA, OVRA, LISA, WIA and WESA) will continue to be based on the total aggregate revenue

requirement for each factor divided by total aggregate retail sales.⁸ The Water Rates Ordinance provides a further explanation for how each factor is calculated.

Figure 24 illustrates the calculation of the total rates for Schedules A, B, and C across all applicable tiers based on the revenue requirement and consumption forecasts in the revised financial plan for the period beginning July of FY 2016-17.⁹

Figure 24: Calculation of the Revised Total Customer Rate (Effective July of FY 2016-17)

Schedule	Tier			
	Tier 1	Tier 2	Tier 3	Tier 4
Water Supply Factor:				
Schedule A	\$1.28	\$2.95	\$2.97	\$3.14
Schedule B	\$1.28	\$2.95		
Schedule C	\$1.28	\$2.95		
Peak Pumping and Storage:				
Schedule A	\$0.000	\$0.000	\$0.746	\$0.746
Schedule B	\$0.000	\$1.760		
Schedule C	\$0.000	\$1.499		
Base Rates and Other Adjustment Factors (WQIA, OVRA, LISA, WIA, WESA, and BRRTA):				
Schedule A	\$3.81	\$3.87	\$3.85	\$3.68
Schedule B	\$3.81	\$3.87		
Schedule C	\$3.81	\$3.87		
Total:				
	Tier 1	Tier 2	Tier 3	Tier 4
Schedule A	\$5.09	\$6.82	\$7.57	\$7.57
Schedule B	\$5.09	\$8.58		
Schedule C	\$5.09	\$8.32		

Except for April 1, 2016, rates presented in the Proposition 218 notice are based on an average of projected rate components for each semi-annual update in a given fiscal year. For FY 2016-17, for example, the rates calculated above are averaged with the analogous rate components projected for January of FY 2016-17 for a yearly average projected rate.

⁸ Starting in year five, Schedule F usage will also be included in the factor calculations.

⁹ Proposed rates for FY 2016-17 through FY 2019-20 will be calculated based on the revised financial plan in a similar manner.

Single-Dwelling Unit Residential Customers (Schedule A)

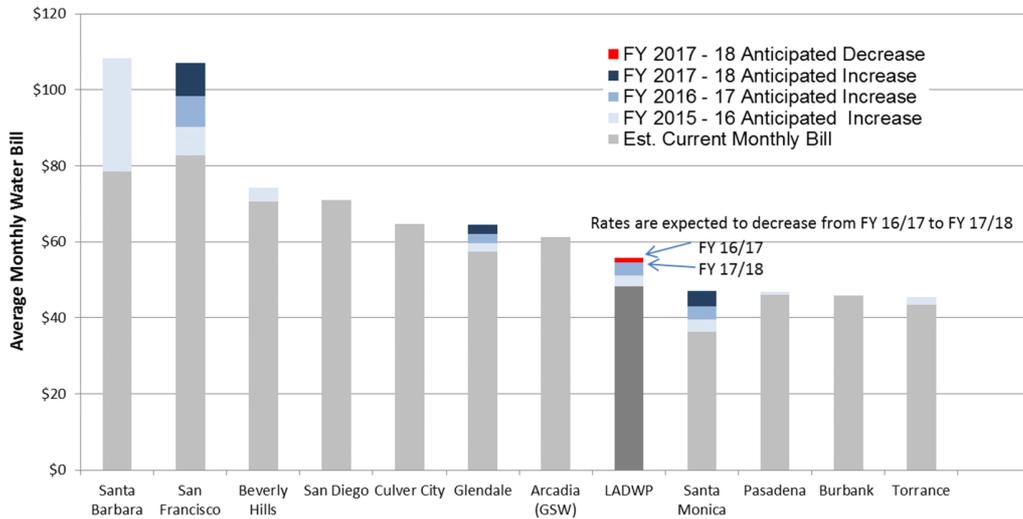
The revised proposed Single-Dwelling Unit Residential rates reflect the revenue requirement and revised consumption forecasts in the revised financial plan. As a result the WSCA has been updated to reflect the reduced near term water sales forecast and there is now less separation between tier prices for Schedule A customers in the near term rate action period. If the level of water consumption increases, then more expensive water sources will be used to meet the larger demand. The most expensive supply will be used for the upper tiers resulting in larger tier price separations. This will provide appropriate conservation signals to encourage customers to reduce consumption. These revised proposed rates are designed to provide the revenue to recover the costs of serving this customer class. The revised proposed rates for the five-year rate period are shown in Figure 25.

Figure 25: Revised Proposed Single-Dwelling Unit Residential Rates

	Initial Proposed Rates				
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$4.45	\$4.61	\$4.92	\$5.18	\$5.32
Tier 2	\$5.41	\$5.78	\$6.29	\$6.67	\$7.32
Tier 3	\$6.31	\$6.59	\$7.47	\$8.37	\$8.11
Tier 4	\$7.91	\$8.29	\$8.77	\$9.01	\$9.97
	Revised Proposed Rates				
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.55	\$5.09	\$4.96	\$5.13	\$5.48
Tier 2	\$6.77	\$6.82	\$6.72	\$6.95	\$7.26
Tier 3	\$7.52	\$7.57	\$7.62	\$7.90	\$8.58
Tier 4	\$7.52	\$7.57	\$7.80	\$9.41	\$10.58

LADWP’s typical Single-Dwelling Unit Residential bills (based on 12 HCF of monthly usage) will continue to remain competitive with estimated bills of other major California water utilities, as illustrated in Figure 26.

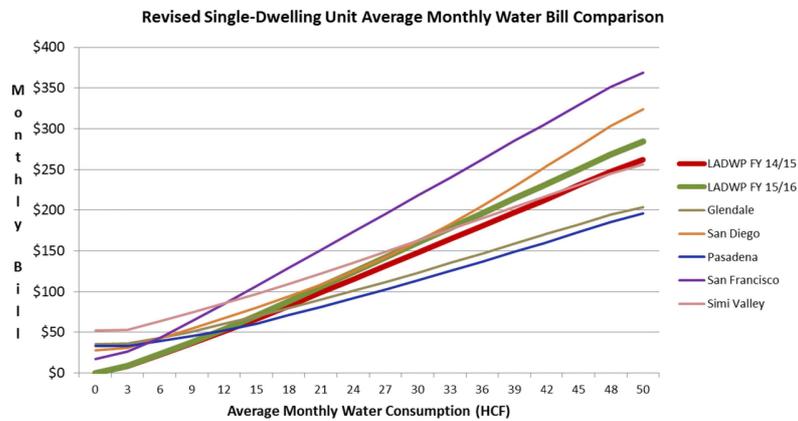
Figure 26: Revised Single-Dwelling Unit Residential Customer Typical Bill Comparison Analysis (Estimated)¹⁰



LADWP’s proposed rates and customer bills still compare favorably to other major California utilities, especially at low usage levels that represent the majority of the Department’s customers. Single-Dwelling Unit Residential customers’ estimated total bills increase with additional usage at a faster rate than peer utilities providing LADWP customers a greater incentive to conserve water than customers of many other California water utilities. Figure 27 illustrates the estimated monthly bills for Schedule A customers as a function of total monthly usage.

¹⁰ The analysis is based on LADWP’s proposed rates and rate changes approved or announced for peer utilities through FY 2016-17. Bill comparisons for utilities with water budgets were based on medium temperature zone, low season, lot size < 7,500 sqft, three people per household, January month, 1,500 sqft irrigated land and lowest pumping zone charge where applicable. These estimates do not reflect changes announced after January 2015.

Figure 27: Revised Single-Dwelling Unit Average Monthly Water Bill Comparison¹¹



Multi-Dwelling Unit Residential Customers (Schedule B)

Multi-Dwelling Unit Residential rates for the five-year rate period are developed to recover the revenue requirement associated with providing service to this customer class while recognizing the increasing cost of water supply at higher levels of usage. The revised proposed rates for the five-year rate action are based on the revised financial plan and are shown in Figure 28.

Figure 28: Proposed Multi-Dwelling Unit Residential Rates

Initial Proposed Rates					
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$4.45	\$4.61	\$4.92	\$5.18	\$5.32
Tier 2	\$7.82	\$7.48	\$7.65	\$8.03	\$8.68
Revised Proposed Rates					
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.55	\$5.09	\$4.96	\$5.13	\$5.48
Tier 2	\$9.27	\$8.58	\$8.13	\$8.36	\$8.67

Commercial, Industrial, Governmental and Temporary Construction

Commercial, Industrial, Governmental and Temporary Construction customer rates for the five-year rate period are developed to recover the revenue requirement associated with providing service to this customer class while recognizing the increasing cost of water supply at higher levels of usage. The revised proposed rates for the next five years are shown in Figure 29.

¹¹ These estimates do not reflect changes announced after January 2015.

Figure 29: Proposed Commercial, Industrial Governmental and Temporary Construction Customer Rates

Initial Proposed Rates					
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$4.45	\$4.61	\$4.92	\$5.18	\$5.32
Tier 2	\$6.86	\$7.23	\$7.74	\$8.11	\$8.77
Revised Proposed Rates					
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.55	\$5.09	\$4.96	\$5.13	\$5.48
Tier 2	\$8.27	\$8.32	\$8.23	\$8.46	\$8.76

Publicly-Sponsored Irrigation; Recreational; Agricultural, Horticultural, and Floricultural uses; Community Gardens and Youth Sports

As discussed in Chapter 5, the rates for Schedule F customers will be transitioned for alignment with the cost of service, based on the results of the cost of service study outlined in Chapter 4. The revised proposed rates continue to target an alignment of revenues and costs within the reasonable period of five years, as shown in Figure 30.

Figure 30: Proposed Schedule F Rates

Initial Proposed Rates					
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20 ¹²
Tier 1	\$1.97	\$2.65	\$3.48	\$4.40	\$5.32
Tier 2	\$6.81	\$7.18	\$7.71	\$8.11	\$8.77
Revised Proposed Rates					
Fiscal Year	4/1/16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20 ¹³
Tier 1	\$2.11	\$2.83	\$3.50	\$4.36	\$5.48
Tier 2	\$6.78	\$8.26	\$8.18	\$8.43	\$8.76

As the cost of water increases, the economic return on investing in more efficient irrigation processes becomes more attractive. Improved efficiency reduces the amount of irrigation,

¹² In year five, Schedule F rates will be the same as Schedule C rates.

¹³ In year five, Schedule F rates will be the same as Schedule C rates.

potentially reducing the allocation of costs to Schedule F customers as their demand decreases compared to other customer classes. Therefore, the ultimate total rate increase to align revenues with costs could be less as irrigation efficiency improves.

Currently, Schedule F revenue is less than the cost of water supply, a major component of the overall cost of water service. The proposed increase in Schedule F rates would result in revenue covering the approximate cost of service noted above by the end of the five-year rate period as shown in Figure 31.

Figure 31: Proposed Schedule F Revenue Transition

\$ M	Current	Initial Proposed Revenue				
Fiscal Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Estimate Revenue	\$ 11.4	\$ 16.4	\$ 22.1	\$ 29.0	\$ 36.7	\$ 44.3
\$ M	Revised Proposed Revenue					
Fiscal Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Estimate Revenue	\$ 11.4	\$17.8	\$23.3	\$27.5	\$33.1	\$40.3