



LOS ANGELES DEPARTMENT OF WATER AND  
POWER

# WATER SYSTEM RATE ACTION REPORT

Chapter 1: Executive Summary

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## 1.1 PURPOSE AND OBJECTIVES FOR THE PROPOSED NEW RATES AND RATE STRUCTURE

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. The Board of Water and Power Commissioners (Board) is currently obligated under Charter Section 609(c)<sup>1</sup> and the Master Resolution to establish rates for water service (Water Rates) and collect charges in an amount which, together with other available funds, will be sufficient to service the Department's Water System indebtedness and pay the necessary expenses of operating and maintaining the Water System. Necessary expenses include meeting regulatory mandates, investing in infrastructure for better reliability, and accelerating the availability of local water supply sources.

Since the last water base rate action in 2009, LADWP has taken important steps to reduce the need for base rate increases. However, given the nature of LADWP's obligations and commitments, the Department is at a point where rate increases are necessary to provide continued system reliability, meet regulatory obligations and maintain a healthy financial standing. To meet financial and conservation requirements, the Department is proposing several changes to both its water rates and overall rate structure.

In addition, given the current drought in California and the Mayor's Executive Directive 5 (ED-5) to reduce Los Angeles water consumption by 20% on a per capita basis by the end of 2017, a primary objective of LADWP's rate structure and rates is to provide price signals that continue to encourage customers to conserve.

Through the duration of the proposed five-year rate period, revenue collected will allow the Department to improve customer service and achieve the following business goals:

- Water Quality—Invest \$1.4 billion to comply with State and Federal water quality regulations;
- Water Infrastructure—Invest \$3.7 billion to complete projects such as replacing approximately 1 million feet of distribution mainline, replacing 25 water distribution valves, replacing 125,000 small meters, and refurbishing the LA Aqueduct (LAA) system;
- Local Supply—Invest \$1.4 billion in local supply projects through effective water conservation programs, expansion of groundwater basins, increase of recycled water use to 50,000 acre-feet per year (AFY), and increase of stormwater capture by 31,000 AFY through centralized and distributed projects;

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<sup>1</sup> For full text see:

[http://www.amlegal.com/nxt/gateway.dll?f=jumplink\\$jumplink\\_x=Advanced\\$jumplink\\_vpc=first\\$jumplink\\_xsl=querylink\\_xsl\\$jumplink\\_sel=title:path;content-type:home-title:item-bookmark\\$jumplink\\_d=california\(laac\)\\$jumplink\\_q=field%20folio-destination-name:%27Ch609.%271\\$jumplink\\_md=target-id=JD\\_Ch609](http://www.amlegal.com/nxt/gateway.dll?f=jumplink$jumplink_x=Advanced$jumplink_vpc=first$jumplink_xsl=querylink_xsl$jumplink_sel=title:path;content-type:home-title:item-bookmark$jumplink_d=california(laac)$jumplink_q=field%20folio-destination-name:%27Ch609.%271$jumplink_md=target-id=JD_Ch609)



- Owens Valley—Conserve LAA water through alternative dust mitigation measures and complete final projects required for dust suppression.

## 1.2 REVENUE REQUIREMENT AND RATE DRIVERS

In developing the rate proposal, LADWP is committed to striking the right balance among continuing to meet regulatory requirements, providing reliable service, planning for a sustainable and secure water supply, and maintaining affordable rates. The key programs that contribute to revenue requirements include:

- Water Quality;
- Infrastructure Reliability;
- Sustainable Local Water Supply (Customer Conservation, Recycled Water, Stormwater Capture, Groundwater Remediation and Clean-up);
- Purchased Water; and
- Owens Valley Regulatory Compliance.

The Department is planning to spend a total of \$7.3 billion on operations and maintenance (O&M) and capital across all the programs mentioned above (excluding purchased water) over the next five years<sup>2</sup>. To meet the Water System's business goals, revenues will need to increase by an average incremental amount of \$90 million annually (excluding the impact of purchased water) for the period of fiscal year (FY) 2015-16 through FY 2019-20. The incremental revenue requires an average annual rate increase of 4.96% to finance and cash-fund these programs, as reflected below in Figure 1.

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<sup>2</sup> All budget and revenue requirement information is based on Financial Plan Case Number 33 including depreciation, net interest expense, and retained earnings and which assumes normal precipitation. If precipitation is below normal as it has been in the most recent two years, the revenue requirement is likely to be higher.

Figure 1: Year-Over-Year (YOY) Rate Driver Breakdown of Proposed Retail Rate and Revenue Requirement Increase (Assuming Normal Precipitation)

Rate Driver	Average Revenue Requirement Increase (\$M)	Average Annual System Retail Rate Increase (cents/HCF)	Average Annual Rate Increase (%)
Conservation (Securitization)	-6 <sup>3</sup>	-0.13	-0.50%
Groundwater (Securitization)	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%
Infrastructure – Pass-Through	44	4.32	3.72%
<b>Total before Purchased Water</b>	<b>90</b>	<b>7.13</b>	<b>8.48%</b>
Purchased Water	-44	-1.24	-3.53%
<b>Total</b>	<b>46</b>	<b>5.89</b>	<b>4.96%</b>

More detail about the financial case upon which the proposed rates and revenue requirements were determined can be found in Chapter 3 – Appendix B.

### 1.3 ASSUMPTIONS AND RISKS ASSOCIATED WITH THE PROPOSED PLAN

For the proposed rate action, LADWP has based future financial plans on certain assumptions. Figure 2 summarizes some of these assumptions and potential risks.

<sup>3</sup> Many conservation investments are eligible for lower financing through securitization, resulting in a reduction in revenue requirement for conservation projects.

Figure 2: Major Assumptions and Risks Associated With the Proposed Plan

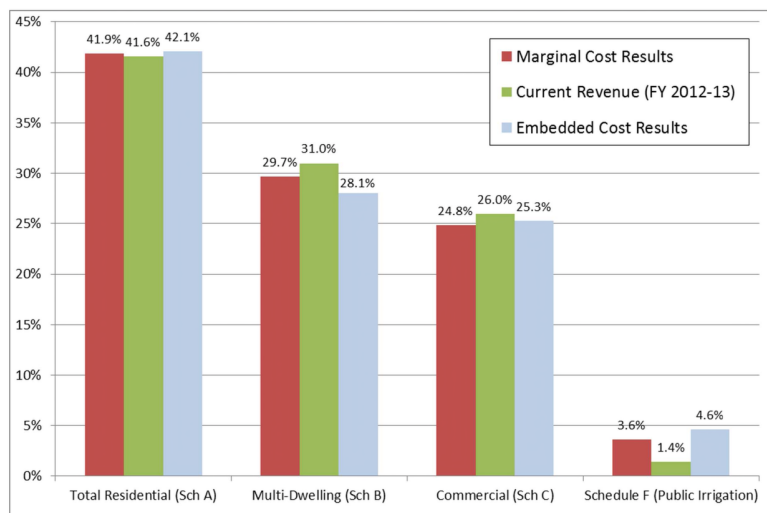
Assumption	Description	Risk/Implication
<b>Conservation</b>	The Mayor's ED-5 has set an aggressive goal of 20% water usage reduction per capita by 2017.	If actual consumption is different from projections in the financial plan, the proposed decoupling mechanism will ensure LADWP receives adequate revenue to cover its fixed costs and customers will not overpay.
<b>Hydrology</b>	Assumes normal hydrology.	California may not return to normal hydrology, and it is likely FY 2015-16, the first year of these proposed rates, could be dryer than usual. This situation could require more purchased water, causing rates to increase. However, the pass-through nature of the proposed Water Supply Cost Adjustment factor will ensure cost recovery for the higher amount of purchased water and help ensure adequate supply for customers.
<b>Financial Market Conditions</b>	Assumes current market conditions with low steady inflation, returns on investment and bond rating.	If market conditions change, LADWP's proposed decoupled rate structure will ensure adequate cost recovery in the case of higher borrowing costs and eliminate over-collection if market conditions become more favorable.
<b>Securitization</b>	Assumes LADWP has access to this financing mechanism.	Securitization is a cheaper mechanism to finance debt. If securitization were not possible, LADWP's strong financial position should provide access to traditional borrowing sources, although at a slightly higher debt service cost. LADWP's decoupled rate structure provides the ability to recover the higher borrowing costs, if required.

## 1.4 COST OF SERVICE STUDY PROCESS AND SUMMARY RESULTS

On October 2, 2012, the Los Angeles City Council approved the LADWP's Incremental Electric Rate Ordinance No. 182273 to provide incremental rate increases for FY 2012-13 and 2013-14. In its action to approve LADWP's power rates, the Council recommended that LADWP "conduct a new formal cost of service study in order to prepare for future power rate restructuring." Though this recommendation was in response to a Power System rate ordinance, LADWP has also completed a cost of service study for its Water System to evaluate its water service cost structure and ensure that its rates are appropriate for the customer classes<sup>4</sup>. Figure 3 provides the cost allocation comparisons among the marginal cost of service study results, embedded cost analysis results, and current revenue (for the FY 2012-13 test year) for each major customer class.

<sup>4</sup> Even in the absence of the Council's Motion, periodic cost of service studies are a common industry practice.

Figure 3: Comparison of Cost of Service Revenue Requirement and Current Revenue (FY 2012-13) Ratios



Results of the LADWP marginal cost of service study indicate that allocating the revenue requirement based on marginal costs results in little difference from the current revenue percentages for Single-Dwelling Unit Residential (Schedule A), Multi-Dwelling Unit Residential (Schedule B) and Commercial, Industrial, Governmental and Temporary Construction (Schedule C) customer classes. However, for Publicly-Sponsored Irrigation; Recreational; Agricultural, Horticultural, and Floricultural Uses; Community Gardens and Youth Sports Service (Schedule F), the customer class marginal cost percentage is significantly different - 3.6% compared to the current revenue level of 1.4%.

As an added step to consider allocation of costs among customer classes in relation to cost of service, the Department conducted an embedded cost of service analysis<sup>5</sup>. The embedded cost of service analysis<sup>6</sup> confirms the marginal cost of service study in that the results are in the same direction; further, the revenue requirement percentages using both methodologies are close to the current revenue requirement percentages of each customer class except Schedule F<sup>7</sup>.

## 1.5 RATE DESIGN SUMMARY

The proposed rate structure will facilitate the Mayor’s conservation goals with minimal bill impacts for low usage customers, while continuing support of business development in the City. The proposed rates also consider legal requirements, including those from Proposition 218

<sup>5</sup> Embedded Cost is also referred to as Average Embedded Cost.

<sup>6</sup> Data used for the embedded cost of service analysis was based on Financial Plan Case Number 33.

<sup>7</sup> LADWP’s embedded cost of service analysis was prepared following both a forward-looking approach based on the financial plan and a historical approach based on FY 2012-13 accounting records. In both cases, the results supported the marginal cost of service study.

(California Constitution Articles XIII C and D), as well as guidance from various Court decisions that have interpreted Proposition 218, including the recent decision by the Fourth Appellate District of the California Court of Appeal in *Capistrano Taxpayers Association v. City of San Juan Capistrano*. The proposed rates are designed to provide the amount of revenue necessary to cover the Department's revenue requirement.

### 1.5.1 Proposed Rate Structure

The proposed rate structure will continue to include base rates and adjustment factors. Rates will continue to be volumetric; however, several changes are proposed to adjustment factors to increase the alignment of costs and revenues. The major proposed changes to the rate structure include, but are not limited to, the following items:

- Increase the number of tiers for Single-Dwelling Unit Residential customers from two to four.
- Establish a Water Supply Cost Adjustment (WSCA) factor that includes the cost of all water supply sources to replace the Water Procurement Adjustment (WPA) factor. The WSCA will be used to align tier rates directly with water supply costs based on the cost of supply and level of usage.
- Separately identify the cost for peak pumping and storage costs in base rates for tiers 3 and 4 (Schedule A) and tier 2 (Schedule B and C)<sup>8</sup>.
- Establish a Water Infrastructure Reliability Adjustment (WIRA) factor to recover the capital costs of specific investments to maintain and improve the reliability of the water distribution system.
- Eliminate the Water Security Adjustment (WSA) factor.
- Establish a Water Expense Stabilization Adjustment (WESA) factor to maintain funds, representing approximately 5% of average annual capital expenditures, to help stabilize rates in the event of unforeseen events impacting water service delivery.
- Establish a Base Rate Revenue Target Adjustment (BRRTA) factor to ensure complete recovery of the base rate revenue for each major customer class, tracking over/under-recovery of costs.<sup>9</sup>

The proposed changes are designed to make the rate structure consistent across major customer classes while providing LADWP more certainty that revenue collected will cover costs. Figure 4 outlines the proposed overall rate structure for Single-Dwelling Unit Residential customers.

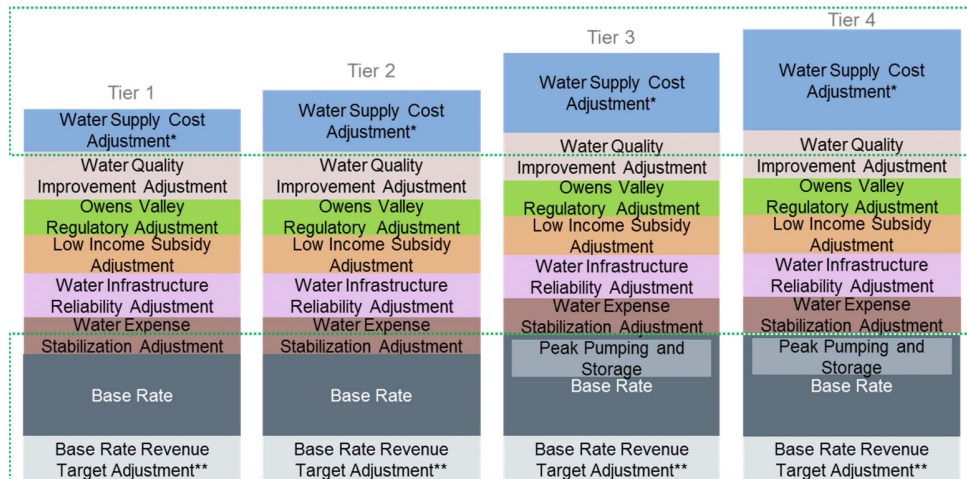
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<sup>8</sup> The tier 2 Schedule F rate was developed based on tier 2 Schedule C rate

<sup>9</sup> The BRRTA will replace the previous Water Revenue Adjustment (WRA) factor.



Figure 4: Proposed Single-Dwelling Unit Residential LADWP 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).

### 1.5.2 Water Budget Allotments

For the proposed rate design, the water budget approach will be maintained, but a few changes will be made to encourage conservation for Single-Dwelling Unit Residential customers in the following manner:

- Eliminate the household size allotment, and set the tier 1 allotment to 8 HCF to reflect indoor use; and
- Retain five lot size groups, but set allotments for lot sizes four and five equal to each other.

Also, Tier 1 Multi-Dwelling Unit Residential allotments will continue to rely on historical usage and will be reduced over time to help meet the Mayor’s goal for a 20% per capita reduction in water usage.

Additionally, Commercial, Industrial, Governmental and Temporary Construction customers’ allotments will stay constant for the low season and initially increase (by 5%) for the high season.

### 1.5.3 Decoupling

Since utilities typically base financial plans upon sales volumes, conservation efforts introduce uncertainty regarding customer consumption, which complicates usage forecasting and



budgeting. To alleviate the risk associated with revenue variation in a fair manner, LADWP proposes to implement a symmetrical decoupling mechanism for all major customer classes using the new BRRTA factor.

Decoupling is a standard utility solution to ensure the recovery of fixed costs while protecting customers from over-recovery of cost. Decoupling separates cost recovery from the usage underlying the calculated overall rate. If, after accounting for actual usage and revenue, designated costs are under-recovered, the decoupling mechanism adjusts rates to fully recover these costs. This type of adjustment works for over-collection, as well. If usage exceeds forecasts, resulting in an over-recovery of fixed costs, customers receive a credit. With decoupling, the issue of over or under-collection is resolved in the following accounting period, through an adjustment in rates (either as a reduced or increased charge to customers).

### 1.5.4 Proposed Rates<sup>10</sup>

The following tables show the Department’s proposed rates for the five-year rate action for three 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.

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

	Current	Proposed				
Fiscal Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$ 4.96	\$ 4.45	\$ 4.61	\$ 4.92	\$ 5.18	\$ 5.32
Tier 2	\$ 5.90	\$ 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

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

	Current	Proposed				
Fiscal Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$4.97	\$4.45	\$4.61	\$4.92	\$5.18	\$5.32
Tier 2	\$5.90	\$7.82	\$7.48	\$7.65	\$8.03	\$8.68

<sup>10</sup> All rates for all customer classes in this section are based on Financial Plan Case Number 33 as modified by Financial Case Number 77a. See Chapter 3 – Appendix B and Chapter 5 for more information.

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

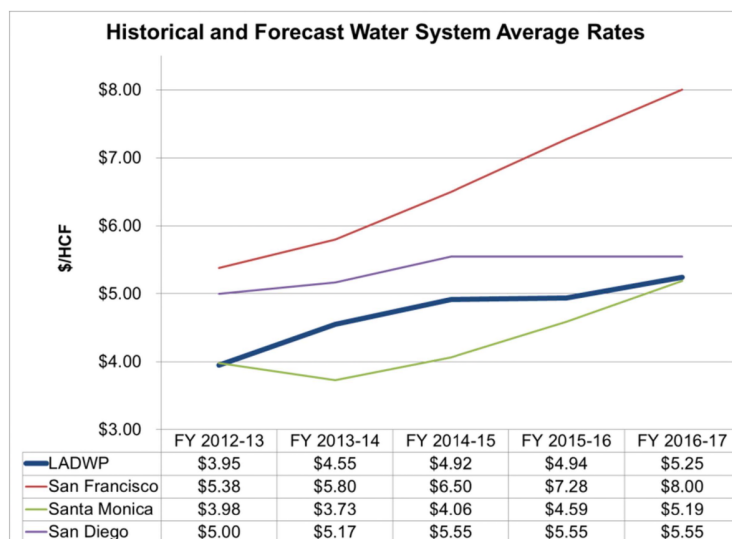
	Current	Proposed				
Fiscal Year	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Tier 1	\$5.06	\$4.45	\$4.61	\$4.92	\$5.18	\$5.32
Tier 2	\$5.90	\$6.86	\$7.23	\$7.74	\$8.11	\$8.77

Recycled Water Service (Schedule D) will continue to be contract-based. Private Fire Service (Schedule E) service availability charges will increase by rate of inflation. Publicly-Sponsored Irrigation; Recreational; Agricultural, Horticultural, and Floricultural Uses; Community Gardens and Youth Sports Service (Schedule F) will increase smoothly over the five-year rate period to align with the cost of service.

### 1.5.5 Peer Utility Rate Comparisons

Water utility rates have been increasing throughout California. As shown in Figure 8, other major city water utilities in California have increased rates and/or have announced future rate increases; however, with the proposed rate increases, LADWP's system average rates will continue to be less than those of other large cities in the State.

Figure 8: Estimated Historical and Forecast Water Utility System Average Rates



## 1.6 SUMMARY OF MAJOR ACCOMPLISHMENTS SINCE LAST RATE ACTION

Since the last base rate action in 2009, the LADWP Water System has made significant accomplishments in regulatory compliance, cost reduction and infrastructure investment. These accomplishments include, but are not limited to, the following:

- Working with the Ratepayer Advocate - LADWP has been working closely with the Ratepayer Advocate (RPA), holding bi-weekly meetings since July 2013, and they have exchanged many concepts and approaches concerning this rate action.
- Labor agreement - In September 2013, LADWP implemented a revised labor contract, forecasted to save \$456 million from October 2013 to September 2017.
- Cost reduction savings - From February 2011 to June 2014, the Department implemented a cost reduction plan that saved over \$460 million. These initiatives had immediate and measurable impacts on expenses and helped to keep rates reasonable.
- Conservation - Conservation programs supported by a volumetric-based rate structure have contributed to a reduction of approximately 16.4% in water usage since the implementation of shortage year rates<sup>11</sup> from June 2009 through August 2014.
- Major Water System investments - Major investments have been made in water quality, groundwater remediation, local supply, infrastructure reliability and Owens Lake regulatory compliance.
- Financial actions taken to minimize rate increases - Opportunities in securitization, refinancing, regulatory asset treatment, State 0% loans, and grants have reduced costs significantly.
- High-level benchmarking - The Department recently completed an initial high-level benchmarking study to analyse operating metrics such as O&M costs, service interruptions, and wage rates to understand where the Department is doing well and where there may be areas for improvement.

Many of the benefits realized continue to be ongoing. Process improvements and other cost savings opportunities have become a major strategic focus area for LADWP.

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<sup>11</sup> Under shortage year rates, tier 1 water allocation, which is the standard allocation every customer gets per billing cycle, is reduced by 15%. A residential customer's allocation is currently based on number of family members, temperature zone and lot size.

## 1.7 ANALYSIS OF ALTERNATIVES

In order to understand the sensitivity of the rate plan to the assumptions and risks outlined in Section 1.3 and the potential impact of delaying or altering the proposed rate action, LADWP has developed a series of sensitivity analyses in conjunction with the Ratepayer Advocate. These analyses indicate that the selected financial plan assumptions and proposed rates will provide the best option for our customers. Any delays in the rate action would either result in a deterioration of key financial metrics (which would negatively impact the Department's ability to borrow) or necessitate spending cuts that would prevent LADWP from making critical investments in infrastructure reliability, a sustainable local water supply and water quality projects. The results of the scenario analyses are summarized in Chapter 3, "Rate Drivers."

## 1.8 BEYOND THE FIVE-YEAR PROPOSED RATE PLAN

The Department will continue to assess rate and revenue requirements associated with both externally mandated costs as well as various levels of funding for other programs for FY 2020-21 and beyond. Costs for these time periods are still subject to uncertainty but are anticipated to require future adjustments in rates. According to the current financial plan, a system average rate increase of 5.90% (including purchased water) would be expected for FY 2020-21 to keep up with revenue requirements that support the programs discussed in this report. However, budgets and other program specifics for FY 2020-21 are currently preliminary.