NARUC Winter Policy Summit

Committee on Water

ConnecticutWater
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MaineWater

Water Efficiency and Conservation

NARUC February 2019

- **Maureen Westbrook**
  Vice President, Customer and Regulatory Affairs

Water Conservation in Connecticut

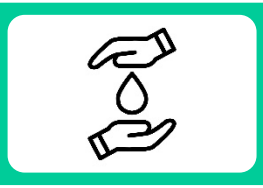
* Water 'Rich' State
* Adequate Water Supply to Meet Current and Future Demands
* Strong Environmental Focus
* Laws and Policies Protect Water Resources
* State Water Plan - Balance Public Health, Safety, Economic Development and Environmental Goals

Water Rates & Design

Reflect the “value of water”

Revenue requirement for operating and capital costs

Balance customer rates and company’s financial needs to sustain system



Meet current and future system needs

Water Revenue Adjustment Mechanism

* Authorized by law in Connecticut in 2013
* Intended to support water conservation
* Annual rate adjustments to recover PURA approved revenues from last rate rate case
  * Adjustment could be a surcharge or credit depending on amount of revenues collected in a calendar year
  * Details submitted to PURA annually for approval before adjustment applied to customers' bills
* Customers protected – sharing of overearnings

Overearnings Protections

* Protection for customers if company overearns their allowed ROE
  * Rolling review, sharing required if exceed allowed ROE
  * Reviewed - WICA and WRA filing
* Provides safeguards and assurances as regulators consider such ratemaking tools

Traditional Conservation Efforts

- Bill inserts, bill messages
- Website, social media
- Direct mailings to targeted systems
- Water conservation calendar
- Water conservation calculator
- Notice of high bills

Recent Conservation Initiatives

Municipal Retrofit

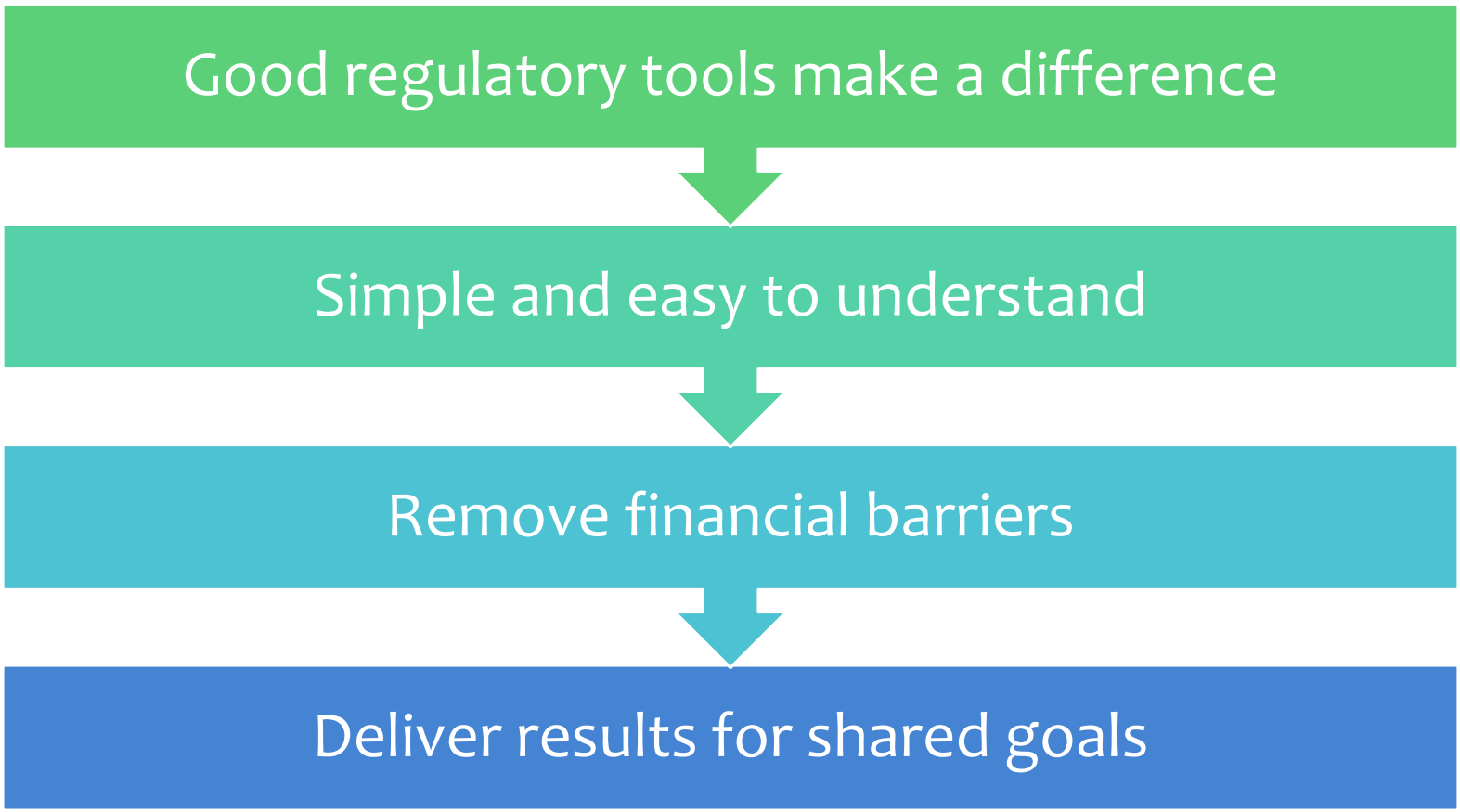
- Offered in all service towns
- Fixtures inspected and replaced

***Water Drop Challenge* – Customer Incentive to Conserve**

- 5,000 customers enrolled
- 40% achieved the savings goal
- 30 million gallons saved

***Water Drop Watchers* – Conservation Education**

- 23 schools, 109 classes
- Over 2,500 students


Good regulatory tools make a difference
Simple and easy to understand
Remove financial barriers
Deliver results for shared goals

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California Water Association

California's New Water Use Efficiency and Drought Planning Legislation: Implications for Regulators

Jack Hawks

NARUC Winter Policy Summit
Washington, DC
February 11, 2019

California Water Association

Drought/Conservation Milestones

2014

- Governor declares Drought State of Emergency (Jan)
- California Water Action Plan released (Jan)
- Sustainable Groundwater Management Act (SGMA) of 2014
- Proposition 1 $7.5 billion water bond (Nov)

2015

- EO B-29-15 mandates 25% cutbacks in urban water use (April)

2016

- EO B-37-16 directs 5 State agencies to develop a long term conservation framework

2017

- Final Report "Making Water Conservation a California Way of Life" released (April)
- Report recommendations being considered in legislation (May/June)

2018

- AB 1668 (Friedman) & SB 606 (Hertzberg) signed into law (May)

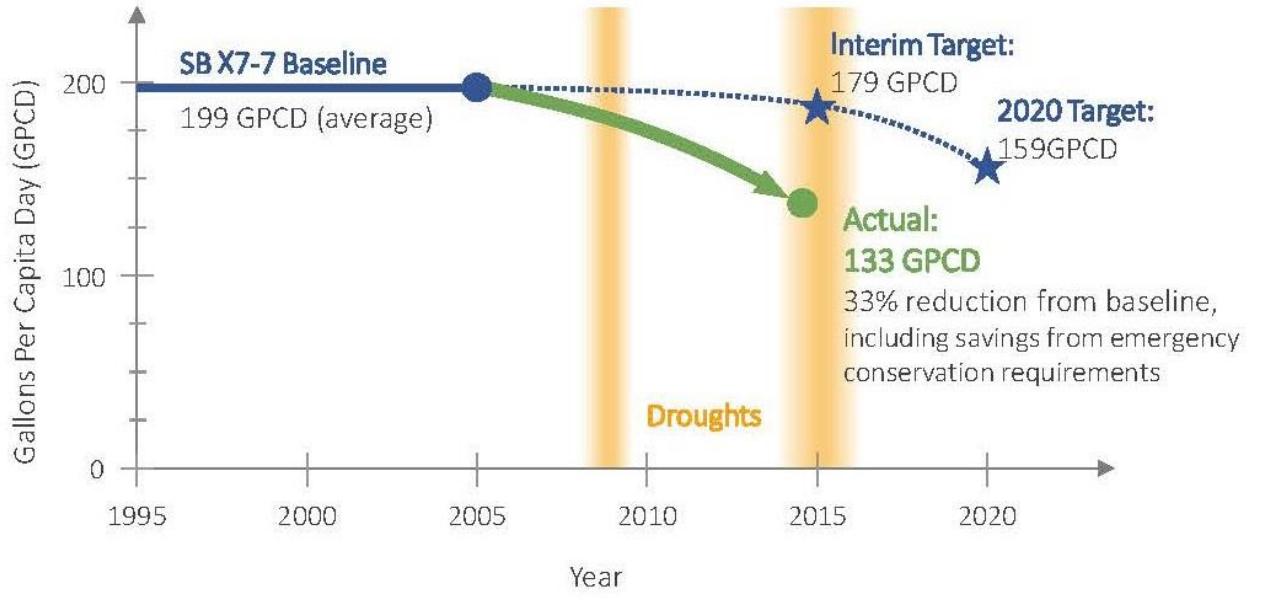
California Water Association

2018 Legislation

Primary Goals	Major Areas of Coverage in SB 606 and AB 1668
Use Water More Wisely	• Water budget-based method for quantifying urban water use objectives • Urban retail water use efficiency standards adoption and water use objectives • Urban retail water use objective implementation, reporting, and enforcement • Expanded civil liability for violations by urban water suppliers
Eliminate Water Waste	• Affirmation for continued implementation of existing requirements enacted by SB 555 of 2015 for setting urban retail water loss standard, methodology, and reporting requirments • Recommendations to Legislature on expanding water loss reporting requirements for urban wholesale water suppliers
Strengthen Local Drought Resilience	• Emergency declaration based on local water shortage • Urban water shortage contingency planning, methodology, reporting, and enforcement • Amendments to existing urban water management reporting and enforcement • Countywide drought planning for small water suppliers and rural communities
Improve Agricultural Water Use Efficiency and Drought Planning	• Water budget-based method for quantifying agricultural water use efficiency • Amendments to existing agricultural water delivery reporting and requirements • Drought resiliency and response planning, requirements for agricultural water use

California Water Association

Conservation Progress

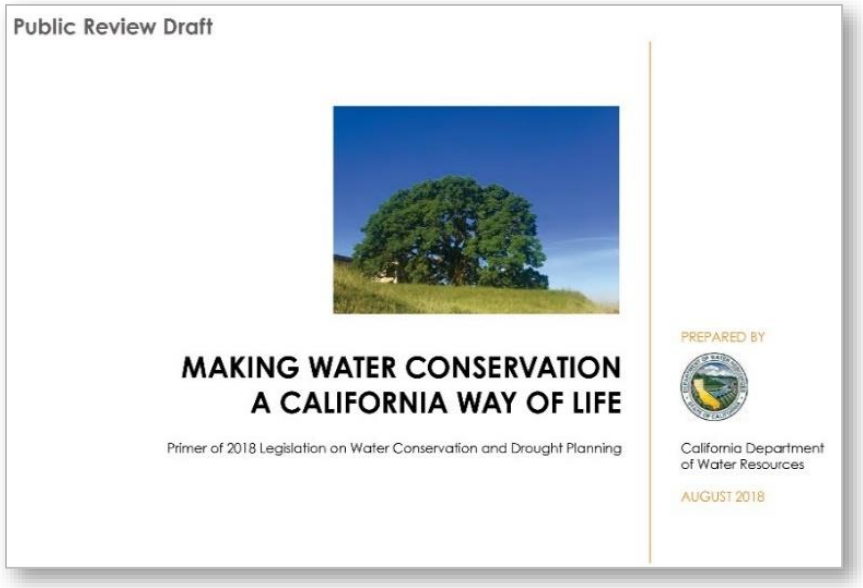


Urban water suppliers reported an average per capita water use of 133 GPCD in 2015, a 33 percent reduction from the baseline conditions set for SB X7-7 and well below the interim target of 179 GPCD and the final target of 159 GPCD.

Figure 3-1. Conservation Targets under SB X7-7 Compared with Actual Conservation

California Water Association

Primer as Reference



- **Purpose:** Summarize authorities, requirements, and schedules in new legislation; roles and responsibilities of state agencies, water suppliers, and other parties.
- Requirements summarized and organized by primary goal
- Appendix A: Summarize Actions **Mandated** by Legislation
- Appendix B: Major State Agency Tasks for Implementation
- Appendix C: Major Water Supplier Tasks for Implementation

Developed by Dept. of Water Resources, State Water Resources Control Board

California Water Association

Urban Water Use Efficiency

Each water utility will be subject to an annual target (2023)

- Water use target based on efficiency or performance standards, not a percentage reduction from a baseline
- Efficiency standards used to calculate a water use objective, or budget
- New water use objective is the sum of aggregate estimated efficient use:
  - **Indoor water use standard (2018)**
  - **Outdoor residential irrigation standard (2022)**
  - **CII Landscape Irrigation with dedicated meters (2022)**
  - **Water Loss Standard (2020)**
  - **Variances**

California Water Association

Indoor Residential Standard

- Dept. of Water Resources Completes Indoor Water Use Study and Report, with Recommendations to Legislature by 1/1/2021
- Indoor Standard Set in Statute
  - 55 gpcd until 1/1/2025
  - 52.5 gpcd until 1/1/2030
  - 50 gpcd after 1/1/2030

California Water Association

Outdoor Standards

- Development of outdoor water use standards for
  - Residential outdoor use
  - Landscape water use associated with CII dedicated-meters
- DWR acquiring data on all state residential *irrigated* land through aerial imagery, weather stations (2021)
- Based on principles of *Model Water Efficient Landscape Ordinance*
  - Regulation for local land use authorities
  - Sets minimum standards for the design and installation of resource efficient landscapes applying primarily to
    - New developments
    - Retrofit landscapes requiring a permit
    - Water allowance approach

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Water Loss Standard

- Per 2015 law, Water Board must set water loss performance standards by July 1, 2020
- Formal rulemaking to begin in July 2019
  - Based on AWWA M 36 Manual
  - CEQA
  - Economic Analysis

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Variances: Unique Water Uses

Variances and thresholds of significance will be developed for each of the following unique water uses:

Evaporative coolers	Horses and other livestock	Seasonal populations
Landscaped areas irrigated with recycled water	Soil compaction and dust control	Ponds and lakes to sustain wildlife
Irrigation of vegetation for fire protection	Agricultural use	Others TBD

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The Utility Budget

Calculating Urban Water Use Objective

Urban Retail Water Supplier's Urban Water Use Objective (CWC §10609.20(c))

Aggregate estimated efficient indoor residential water use

+

Aggregate estimated efficient outdoor residential water use

+

Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use

+

Aggregate estimated efficient water losses

+

Aggregate estimated water use for variances approved by the State Water Board

+

Allowable Bonus Incentive Adjustments (CWC §10609.20(d))

Volume of potable reuse water from existing facility, with completed environmental review by January 1, 2019, that becomes operational by January 1, 2022, not to exceed **15% of urban water use objective**

+

Volume of potable reuse water from new facility, not to exceed **10% of urban water use objective**

=

Urban Retail Water Supplier's "adjusted" urban water use objective for annual reporting purposes and comparison to the actual water use in the previous year

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Drought Planning

- Prepare for a drought of 5 years or longer
- Annual supply and demand assessments beginning in 2022
- Support for most vulnerable small systems
  - Identify small suppliers and rural communities at risk of drought and water shortages
  - Propose recommendations to address drought contingency planning for small water suppliers and rural communities in Report to Governor.
  - Countywide planning approach

California Water Association

Compliance and Enforcement

Progressive approach

- Information Orders
- Conservation Orders
- Administrative Civil Liability

California Water Association

Questions

Jack Hawks
jhawks@calwaterassn.com

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CALIFORNIA WATER EFFICIENCY PARTNERSHIP

Alliance for Water Efficiency

WATER EFFICIENCY POLICIES AND REVENUE IMPACTS

Mary Ann Dickinson
NARUC Winter Policy Summit
February 12, 2019

Home » Opinion » This Article

Opinion: No One Can Live on The 55-Gallons-a-Day Water Limit California Is Imposing

POSTED BY EDITOR ON JULY 22, 2018 IN OPINION | 1536 VIEWS | 3 COMMENTS | LEAVE A COMMENT

It's Now Against The Law In California To Shower And Do Laundry On The Same Day

LATEST NEWS

Look out, California. More punitive water restrictions are on their way

ENERGY / COMMENTARY

Blame California's Crazy Left-Wing Politics for Water Rationing

Jarrett Stepman / @JarrettStepman / June 06, 2018 / 158 Comm

As some have noted, the restriction could make it difficult for some California citizens to do laundry and take a shower on the same day without going over the limit.

CA CONSERVATION WATER TARGETS

To create each water provider's unique target,
the following standards will be calculated and <u>added together</u>:

INDOOR USE

The standard for indoor residential water use is 55 gallons per person per day multiplied by the population of the service area.

+

OUTDOOR USE

The standard for outdoor residential water use is based upon a community's climate and the amount of landscape area and is still to be determined.

+

WATER LOSS

The standard for water loss due to leaks in the water system pipes is still to be determined.

+

CII LANDSCAPE

The standard for outdoor CII water use for accounts with dedicated irrigation meters is still to be determined.

Efficiency Standards TIMING

2018

Begin standard development

2022

Adopt standards, PMs, and method

2023

Suppliers calculate objectives

2026

All suppliers reach objectives

Source: State Water Resources Control Board

U.S. | THE TEXAS TRIBUNE

Texans Answer Call to Save Water, Only to Face Higher Rates

By NEENA SATIJA FEB. 8, 2014

"The losses have prompted credit ratings agencies to look closer at the finances of public utilities in Texas. One agency, Fitch, downgraded some of Fort Worth's water and sewer debt last year, and last week the firm downgraded the debt of the city's wholesale water supplier. Fort Worth lost $11 million last year because of water conservation."

FSW
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What Really Affects Revenue Stability?

- Reduced demand from:
  - efficient fixture replacement under the plumbing and appliance codes
  - active conservation programs
  - the recession: industrial shift layoffs, home foreclosures
- Reduced peak demand in wet years
- Increased infrastructure costs
- Rise in other fixed costs
- Continuing Inflation
- Poor Demand Forecasting

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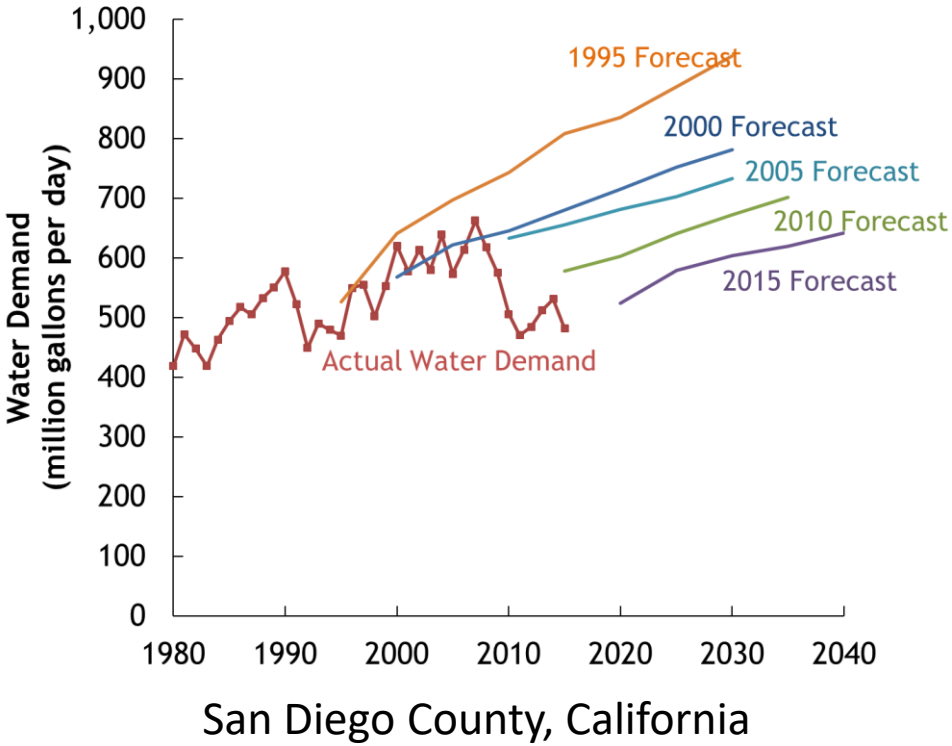
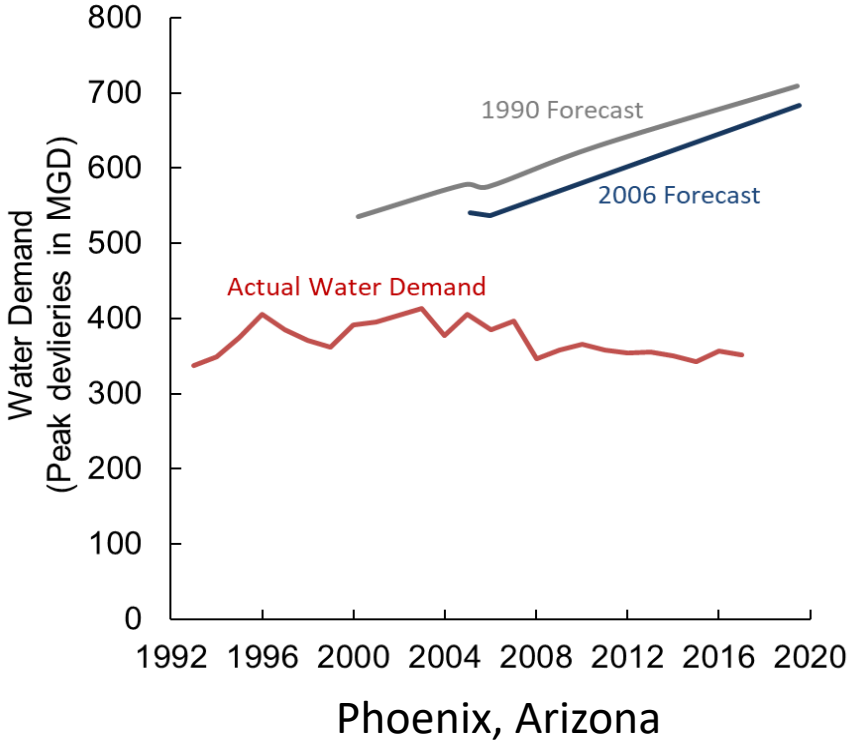
Forecasts often overestimate demand



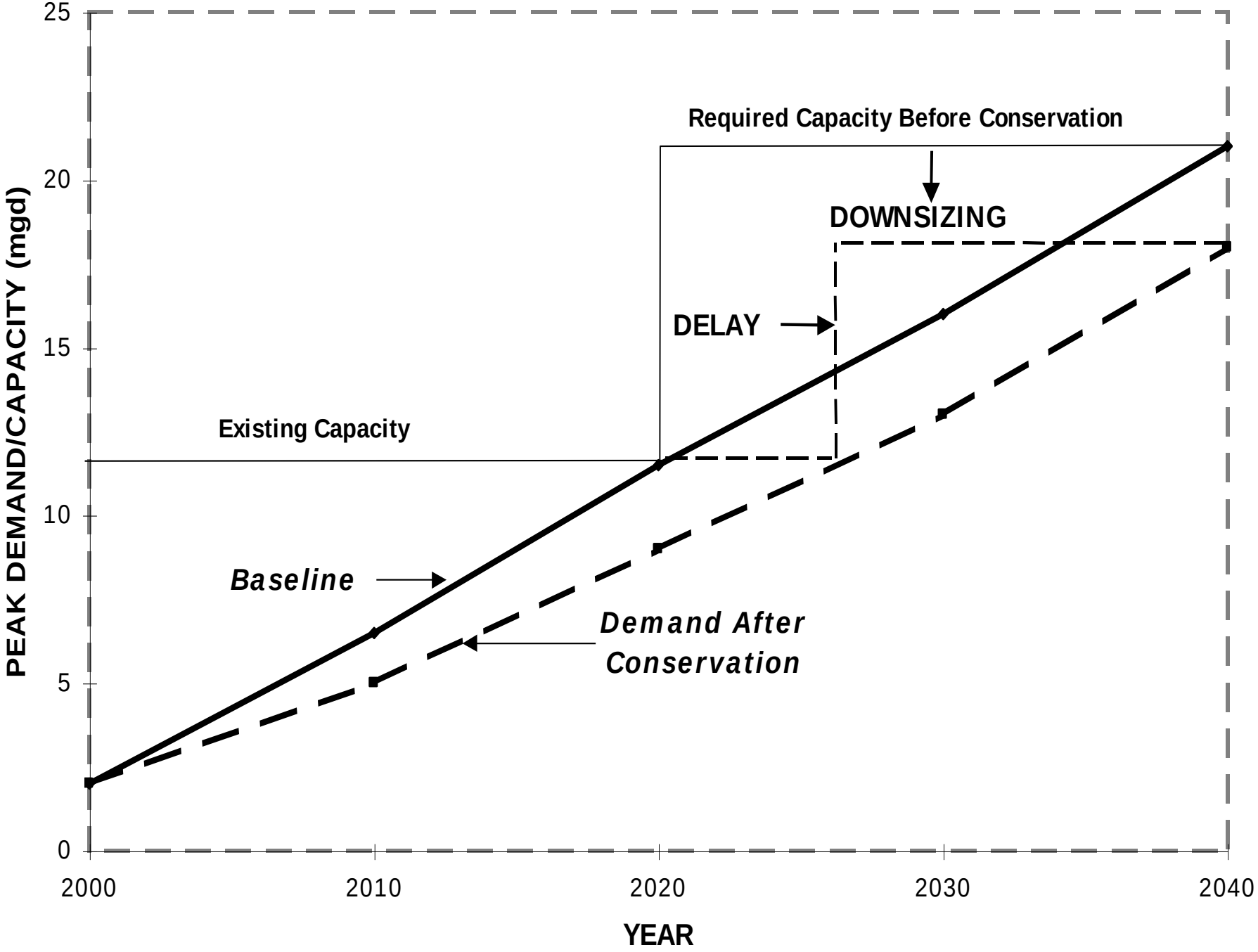
San Diego County, California



Phoenix, Arizona

Recommendation: Examine the accuracy of your demand forecasts and monitor trends in water use.

Heberger, Donnelly, and Cooley, 2016. "A Community Guide for Evaluating Future Urban Water Demand." Pacific Institute, Oakland, CA.


25
20
15
10
5
0
PEAK DEMAND/CAPACITY (mgd)
Required Capacity Before Conservation
DOWNSIZING
DELAY
Existing Capacity
Baseline
Demand After Conservation
2000
2010
2020
2030
2040
YEAR

AWE CONSERVATION TRACKING TOOL: UTILITY REVENUES & RATES WORKSHEET

Review revenue requirement and rate impacts: This worksheet calculates the impact of planned conservation on annual revenue requirement, average rates, and average bills. It assumes the volumetric revenues generated by the baseline demand and rates forecasts correspond to the utility's volumetric revenue requirement. It then adjusts forecasted annual water sales and revenue requirement using the water savings, conservation program cost, and utility avoided cost estimates calculated earlier. The adjusted revenue requirement equals the baseline revenue requirement plus annual conservation program cost minus annual avoided water supply cost. The adjusted average volumetric rate equals adjusted revenue requirement divided by adjusted annual water sales. The adjusted average monthly volumetric bill equals adjusted revenue requirement divided by number of accounts divided by 12. Calculations are done for two alternative financing strategies for planned conservation. The first strategy treats planned conservation as an operating expense. The model assumes planned conservation is paid for in the year it occurs (Pay-Go financed). The second strategy treats planned conservation as a capital expense. The model assumes planned conservation is debt financed. You can set the debt financing term using the drop-down list.

Select Chart to View

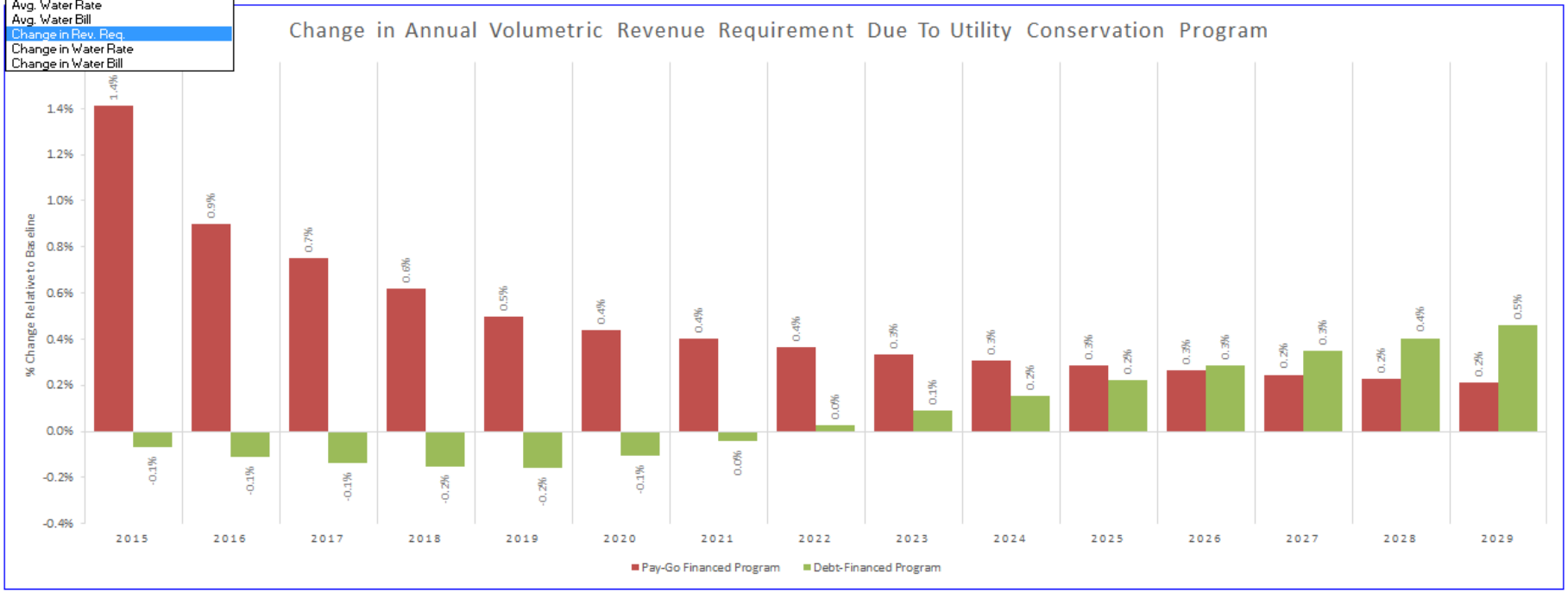
Change in Rev. Req.

- Revenue Requirement
- Avg. Water Rate
- Avg. Water Bill
- Change in Rev. Req.
- Change in Water Rate
- Change in Water Bill

Debt Financing Term (Yrs): 15

Years to Display in Chart: 15

Chart Explanation



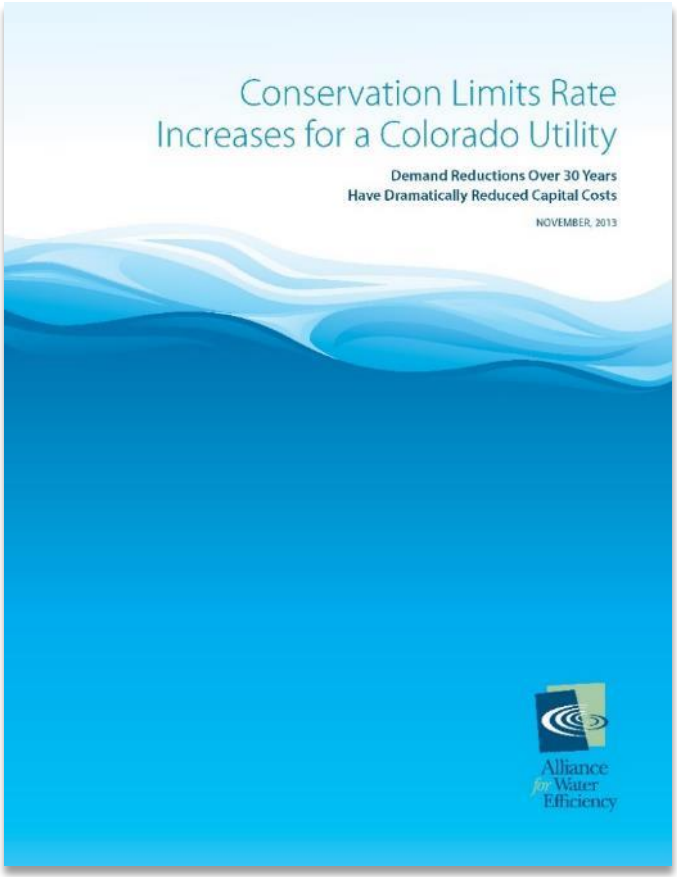
Baseline Volumetric Revenue Requirement, Average Rate, & Average Bill

Baseline Water Sales Forecast (from 2. Specify Demands)

Customer Class	Units	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	202
Single Family	AF	43,779	43,800	43,827	43,851	43,880	43,913	44,069	44,229	44,393	44,560	44,731	45,024	45,32
Multi Family	AF	3,324	3,309	3,295	3,281	3,268	3,257	3,254	3,252	3,250	3,250	3,250	3,259	3,26
CII	AF	13,458	13,481	13,504	13,528	13,553	13,578	13,641	13,705	13,769	13,833	13,898	14,000	14,10
Irrigation	AF	6,729	6,748	6,767	6,787	6,806	6,825	6,864	6,902	6,940	6,979	7,017	7,075	7,13
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Not in use	AF	0	0	0	0	0	0	0	0	0	0	0	0	
Total	AF	**67,289**	**67,338**	**67,394**	**67,447**	**67,507**	**67,572**	**67,827**	**68,087**	**68,352**	**68,622**	**68,896**	**69,359**	**69,82**

Westminster's Story

- Citizens complained about being asked to conserve when rates would just go up anyway
- Westminster reviewed marginal costs for future infrastructure if conservation had not been done
- Since 1980 conservation has saved residents and businesses 80% in tap fees and 91% in rates compared to what they would have been without conservation



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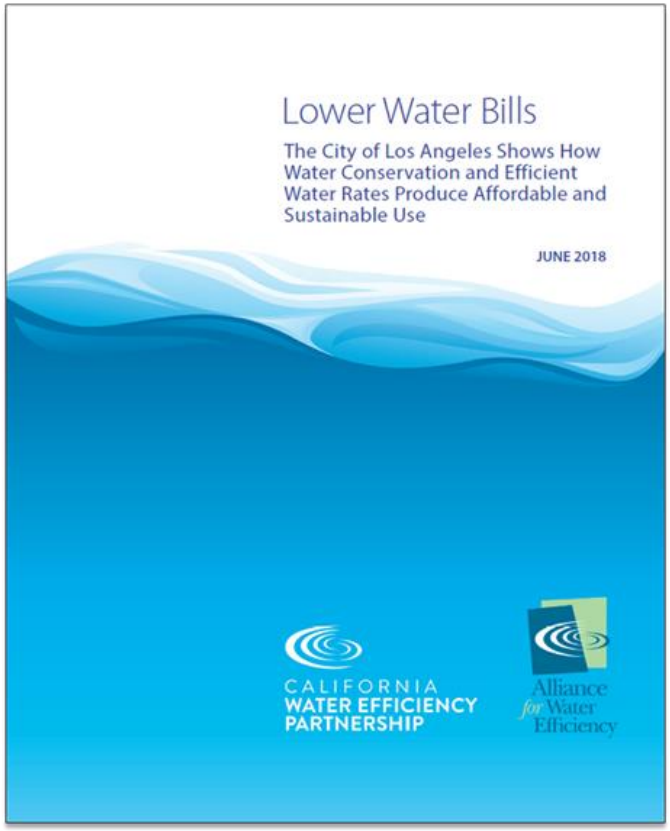
LA's Story

- Similar story with unpopular rate increases
- Study of costs avoided with water conservation programs
- Analysis completed in August, 2018
- LA had $11 billion in avoided infrastructure costs, which reduced customer bills by 26.7%
- Two other studies done in Arizona with similar results



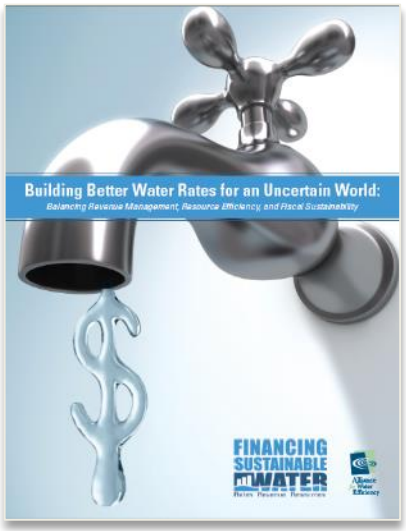
Financing Sustainable Water

FINANCING SUSTAINABLE WATER
Rates. Revenue. Resources.

Alliance for Water Efficiency

What is Financing Sustainable Water?

- **Building Better Rates in an Uncertain World:** A Handbook to explain key concepts, provide case studies and implementation advice
- **AWE Sales Forecasting and Rate Model:** Innovative, user-friendly tool to model scenarios, solve for flaws, and incorporate uncertainty into rate making
- **FinancingSustainableWater.org:** Web-based resources to convene the latest research and information in one location, including consumer videos



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FINANCING SUSTAINABLE WATER

Rates. Revenue. Resources.

A project of the Alliance for Water Efficiency

Rates. Revenue. Resources.

Financing Sustainable Water is an initiative of the Alliance for Water Efficiency. It was created to provide practical information to guide utilities from development through implementation of rate structures that balance revenue management, resource efficiency and fiscal sustainability. This website will be updated frequently with new content and we encourage visitors to return often for additional information and resources. The Alliance serves as a North American advocate for water efficient products and programs, and provides information and assistance on water conservation efforts. Learn More

WATER MANAGERS

Find guidance on sustainable financial management

ELECTED OFFICIALS

Support your utility through smart management practices

CONCERNED CITIZENS

Learn how you can help create a sustainable water future

MEDIA

Get facts on today's water challenges and solutions

RATES HANDBOOK
Building Better Rates for an Uncertain World

RATE MODEL
Sales Forecasting and Rate Model

RECENT NEWS

- Welcome to Financing...

FEATURED RESOURCES

- Case Study: Cobb County
  Public Engagement Success
- Report: Westminster, CO
  Conservation Lowers Rates

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Committee on Water

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Water-Efficiency & Conservation

A Utility Perspective

Rob Kuta

Vice President, Engineering

Chief Water Quality & Environmental Compliance Officer

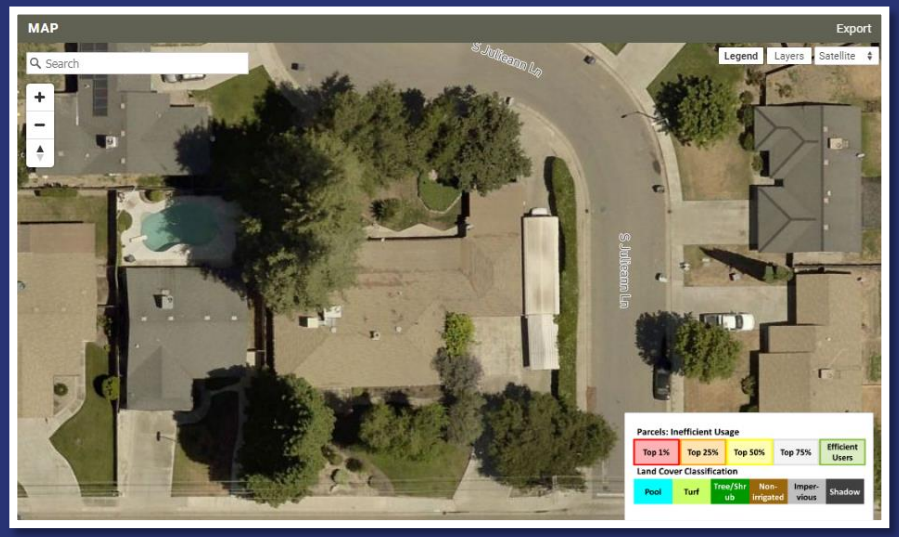
Water-Efficiency Leadership





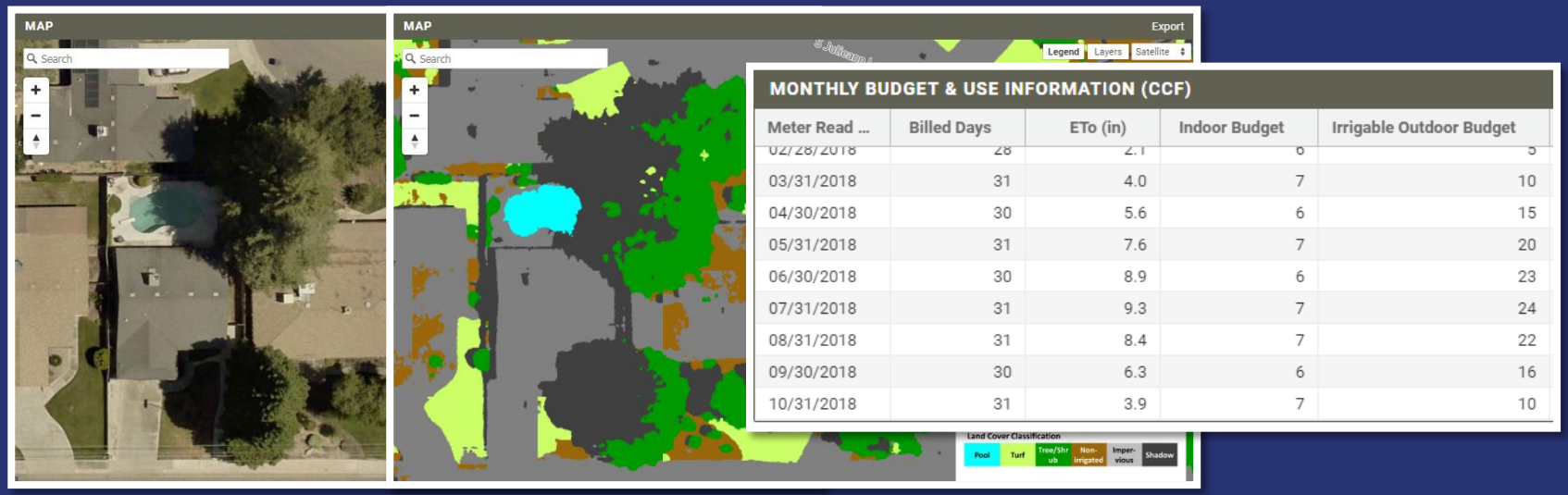

www.calwater.com/video/**bad-days**

Water-Efficiency Leadership



Water-Efficiency Leadership

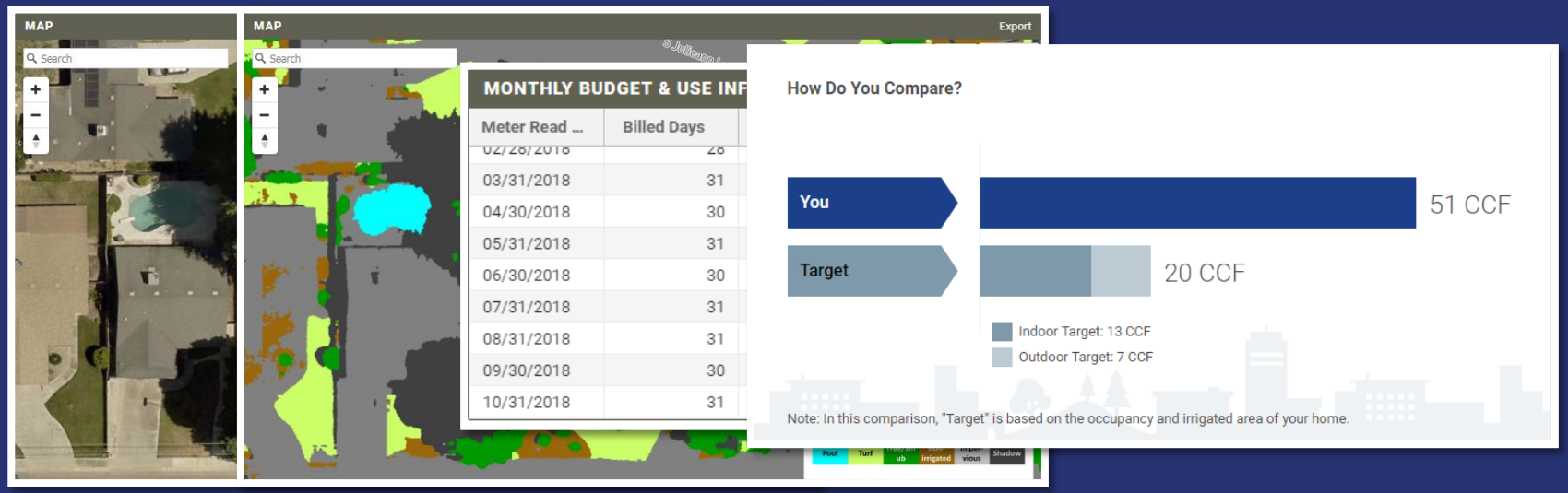
Water-Efficiency Leadership



MONTHLY BUDGET & USE INFORMATION (CCF)

Meter Read ...	Billed Days	ETo (in)	Indoor Budget	Irrigable Outdoor Budget
02/28/2018	28	2.1	6	5
03/31/2018	31	4.0	7	10
04/30/2018	30	5.6	6	15
05/31/2018	31	7.6	7	20
06/30/2018	30	8.9	6	23
07/31/2018	31	9.3	7	24
08/31/2018	31	8.4	7	22
09/30/2018	30	6.3	6	16
10/31/2018	31	3.9	7	10

Water-Efficiency Leadership



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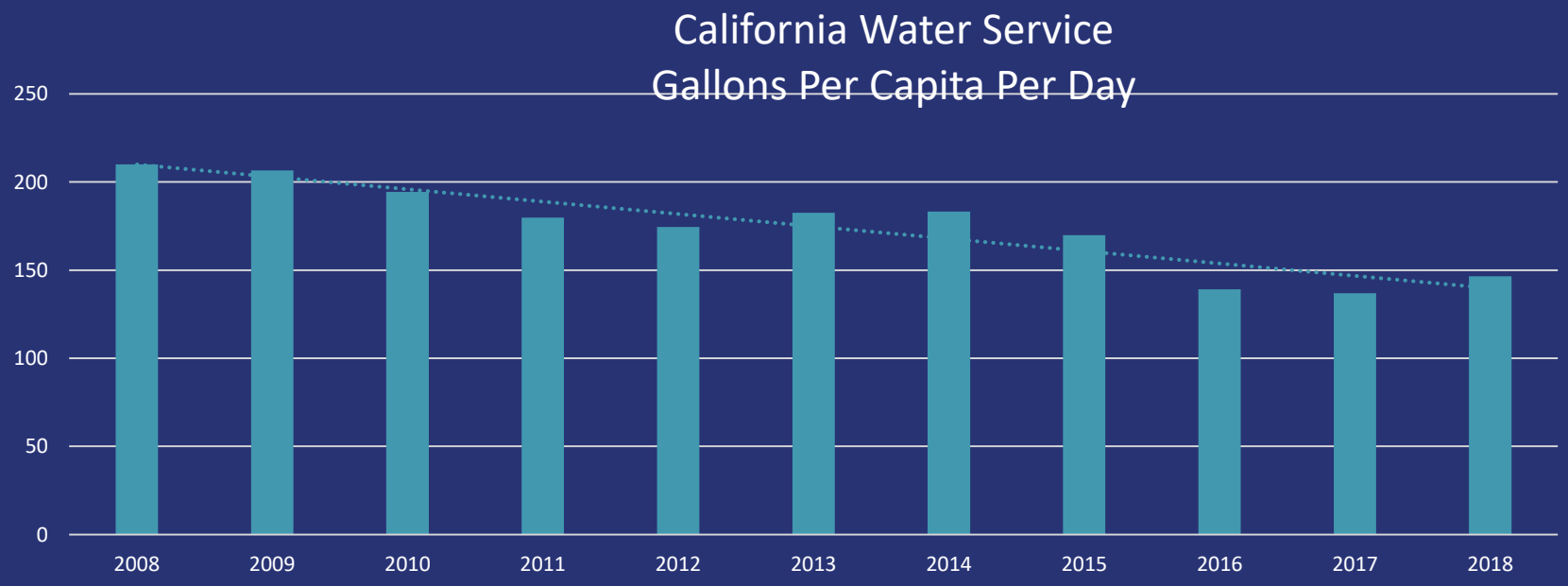
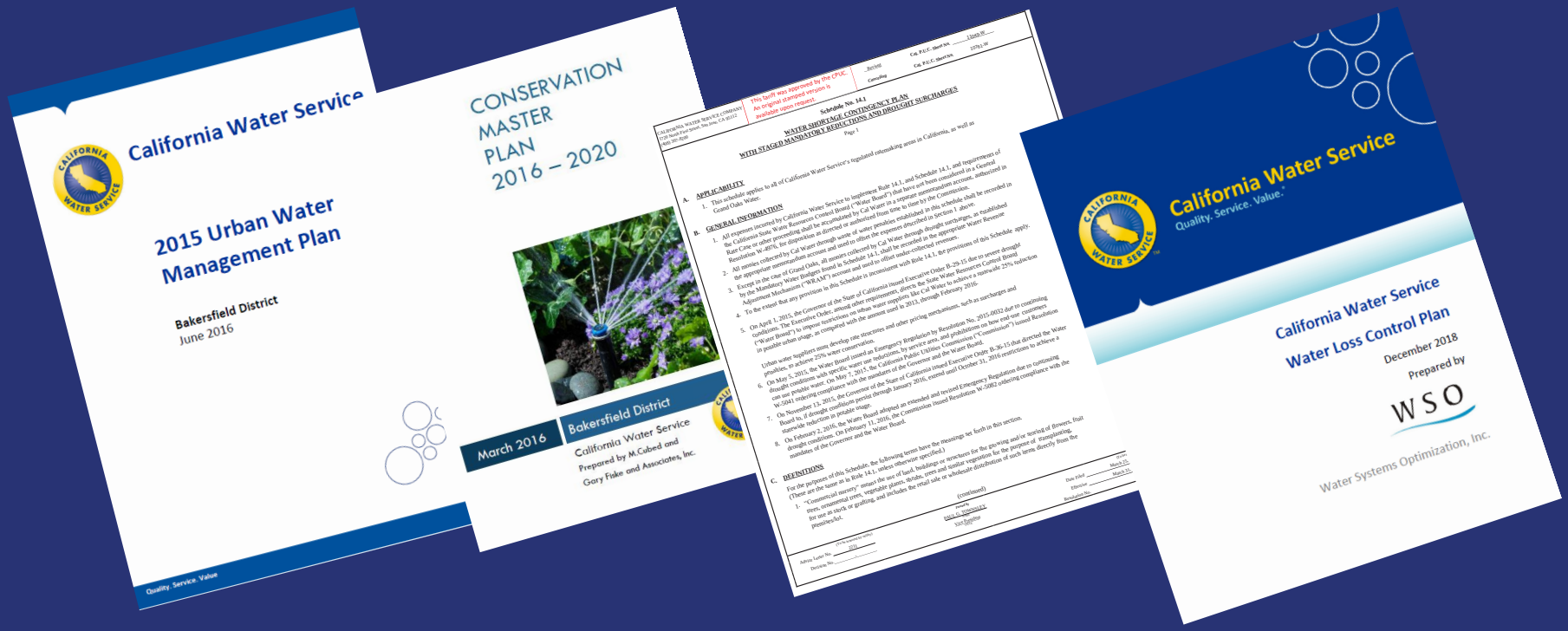


Integrated Planning



Integrated Planning

Forecast Dashboard

District ID: BK

Forecast Assumptions

Forecast Period

GRC Baseline	2020
Forecast Start	2020
Forecast End	2050
Yr FLT Services = 0	2021

Caltrans Growth Rates & Service Floors & Ceilings

	DEFAULT	USER
SFR	1.07%	0.00%
MFR	0.44%	0.00%
COM	0.81%	0.00%
GOV	0.88%	0.00%
IND	0.42%	0.00%

Service Growth & Conservation Adjustments

Caltrans Growth	DEFAULT
Active Conservation	DEFAULT

Drought Rebound %

SFR	20%
MFR	20%
COM	20%
GOV	20%

Avg Y-Y % Real Change in Water Rate

Historical	5.1%
2021-2030	3.0%
2031-2040	3.0%
2041-2050	3.0%

Water Use Adjustments

Drought Rebound	TRUE
Plumbing Code	TRUE
Active Conservation	TRUE
Price	TRUE
Income	TRUE

Non-Revenue Water (NRW) % of Production

System	Historical Average	2020	2025	2030	2035	2040	2045	2050
BK-BK	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
BK-NG	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%

Active Conservation % Savings

		2025	2030	2035	2040	2045	2050
DEFAULT	SFR+MFR	1.1%	1.2%	1.3%	1.3%	1.3%	1.4%
	COM+GOV	0.7%	1.2%	1.3%	1.4%	1.5%	1.5%
USER	SFR+MFR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	COM+GOV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Price & Income Water Demand Elasticities

	Price	Income
SFR	-0.17	0.48
MFR	-0.03	0.16
COM	-0.10	0.00
GOV	-0.11	0.00

Forecast Display

System: BK | Service Growth Selection: Caltrans Growth Forecasts | Class: TOT | Vol Units: AF

Use the spinner buttons to adjut the y-axis scale

Regulatory

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

California Water Association

California's New Water Use Efficiency and Drought Planning Legislation: Implications for Regulators

Jack Hawks

NARUC Winter Policy Summit
Washington, DC
February 11, 2019

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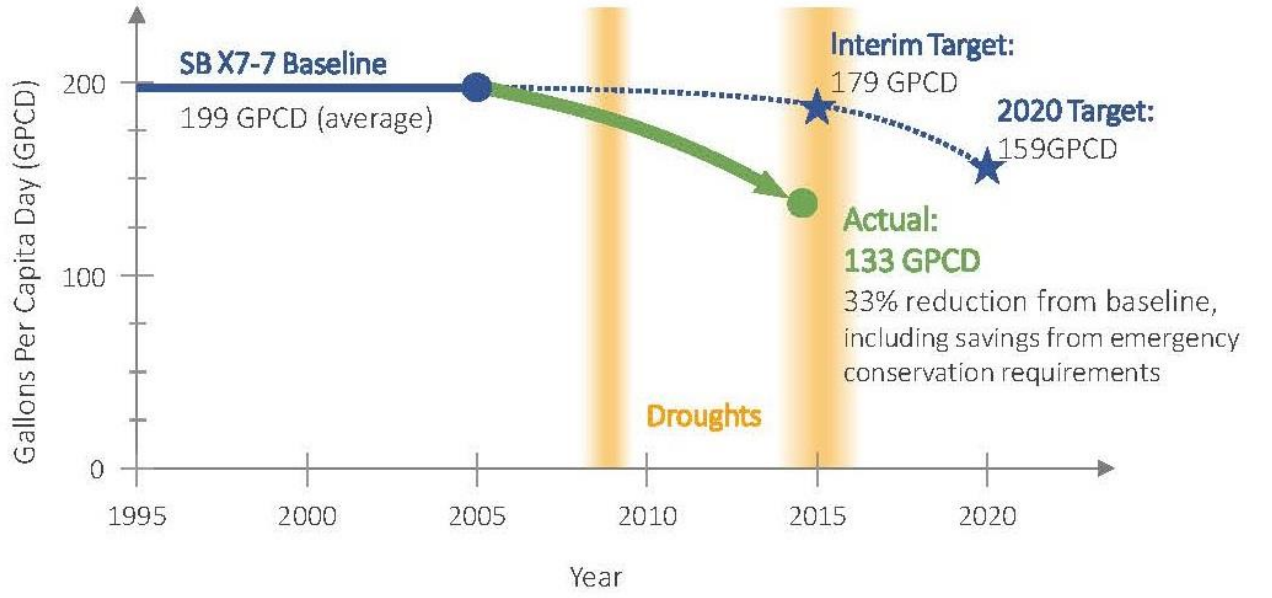
Improve Agricultural Water Use Efficiency and Drought Planning	• Water budget-based method for quantifying agricultural water use efficiency • Amendments to existing agricultural water delivery reporting and requirements • Drought resiliency and response planning, requirements for agricultural water use

California Water Association

Conservation Progress



Urban water suppliers reported an average per capita water use of 133 GPCD in 2015, a 33 percent reduction from the baseline conditions set for SB X7-7 and well below the interim target of 179 GPCD and the final target of 159 GPCD.

Figure 3-1. Conservation Targets under SB X7-7 Compared with Actual Conservation

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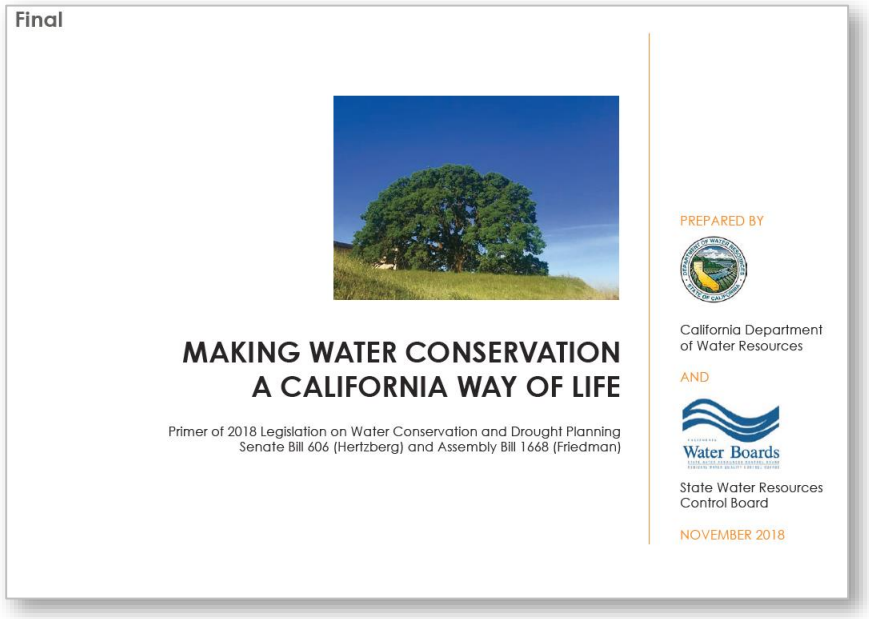
Primer as Reference



- **Purpose:** Summarize authorities, requirements, and schedules in new legislation; roles and responsibilities of state agencies, water suppliers, and other parties.
- Requirements summarized and organized by primary goal
- Appendix A: Summarize Actions Mandated by Legislation
- Appendix B: Major State Agency Tasks for Implementation
- Appendix C: Major Water Supplier Tasks for Implementation

Developed by Dept. of Water Resources, State Water Resources Control Board

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Drought Planning

- Prepare for a drought of 5 years or longer
- Annual supply and demand assessments beginning in 2022
- Support for most vulnerable small systems
  - Identify small suppliers and rural communities at risk of drought and water shortages
  - Propose recommendations to address drought contingency planning for small water suppliers and rural communities in Report to Governor.
  - Countywide planning approach

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Urban Water Use Efficiency

Each water utility[1] will be subject to an annual target (2023)

- Water use target based on efficiency or performance standards, not a percentage reduction from a baseline
- Standards used to calculate a water use objective, or budget
- Water use budget is the sum of aggregate estimated efficient use:
  - **Indoor water use standard (2018)**
  - **Outdoor residential irrigation standard (2022)**
  - **CII Landscape Irrigation with dedicated meters (2022)**
  - **Water Loss Standard (2020)**
  - **Variances (e.g., seasonal pop.; recycled water; evap. coolers)**

[1] Urban Water Suppliers; defined as utilities with more than 3,000 service connections or more than 3,000 acre-feet per year.

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Indoor Residential Standard

- Indoor Standard Set in Statute
  - 55 gpcd until 1/1/2025
  - 52.5 gpcd until 1/1/2030
  - 50 gpcd after 1/1/2030
- Dept. of Water Resources completes indoor water use study and report, with recommendations to legislature by 1/1/2021

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Outdoor Standards

- Development of outdoor water use standards for
  - Residential outdoor use
  - Landscape water use associated with CII dedicated-meters
- DWR acquiring data on all state residential *irrigated* land through aerial imagery, weather stations (2021)
- Based on principles of *Model Water Efficient Landscape Ordinance*
  - Regulation for local land use authorities
  - Sets minimum standards for the design and installation of resource efficient landscapes applying primarily to
    - New developments
    - Retrofit landscapes requiring a permit
    - Water allowance approach

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Water Loss Standard

- Per a 2015 law, Water Board must set water loss performance standards by July 1, 2020
- Formal rulemaking to begin in July 2019
  - Based on AWWA M36 Manual
  - CEQA Review
  - Economic Analysis

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Water Use Target Example

Sector	Budget[1] (GPCD)	Budget Volumes (Gallons)	(Ccf)	(acre-feet)
Residential Indoor Use	55	3.419 billion	4,570,856	10,493
Outdoor Irrigation Use	45	2.797 billion	3,739,305	8,585
Water Loss	6	373 million	498,663	1,145
Target	**106**	**6.590 billion**	**8,809,682**	**20,223**

Notes: [1]Budget calculations based on the following: Service area population = 170,319 (approx. 50,000 service connections); 325,851 gal/af; 748 gal/Ccf; Days per year = 365

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Compliance/Enforcement

- Primary Regulator
  - State Water Resources Control Board (SWRCB)
    - All urban water suppliers (public, private, regulated IOU)
  - California PUC (regulated water IOUs)
- Progressive Approach
  - NOVs and Information Orders (warning letters)
  - Conservation Orders (add'l requirements for compliance)
  - Administrative Civil Liability (fines; e.g., $1,000/day)

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Implications for CPUC

- Reconcile drought management requirements with CPUC Tariff Rule 14.1
- Reconcile future test year sales forecasts with required annual budgets
  - What to do if budget target (plus CII use) is (much) more or less than adopted sales forecast in most recent GRC
    - Higher = lower rates in test year
    - Lower = higher rates in test year, but must resolve conflict w/SWRCB enforcement

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Questions

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Variances: Unique Water Uses

Variances and thresholds of significance will be developed for each of the following unique water uses:

Evaporative coolers	Horses and other livestock	Seasonal populations
Landscaped areas irrigated with recycled water	Soil compaction and dust control	Ponds and lakes to sustain wildlife
Irrigation of vegetation for fire protection	Agricultural use	Others TBD

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The Utility Budget

Calculating Urban Water Use Objective

Urban Retail Water Supplier's Urban Water Use Objective (CWC §10609.20(c))

Aggregate estimated efficient indoor residential water use

+

Aggregate estimated efficient outdoor residential water use

+

Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use

+

Aggregate estimated efficient water losses

+

Aggregate estimated water use for variances approved by the State Water Board

+

Allowable Bonus Incentive Adjustments (CWC §10609.20(d))

Volume of potable reuse water from existing facility, with completed environmental review by January 1, 2019, that becomes operational by January 1, 2022, not to exceed **15% of urban water use objective**

+

Volume of potable reuse water from new facility, not to exceed **10% of urban water use objective**

=

Urban Retail Water Supplier's "adjusted" urban water use objective for annual reporting purposes and comparison to the actual water use in the previous year