

# 2015 Urban Water Management Plan



City Council Meeting  
June 14, 2016

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# Our mission:

Protecting public health  
by sustaining water  
resources, infrastructure  
and the environment



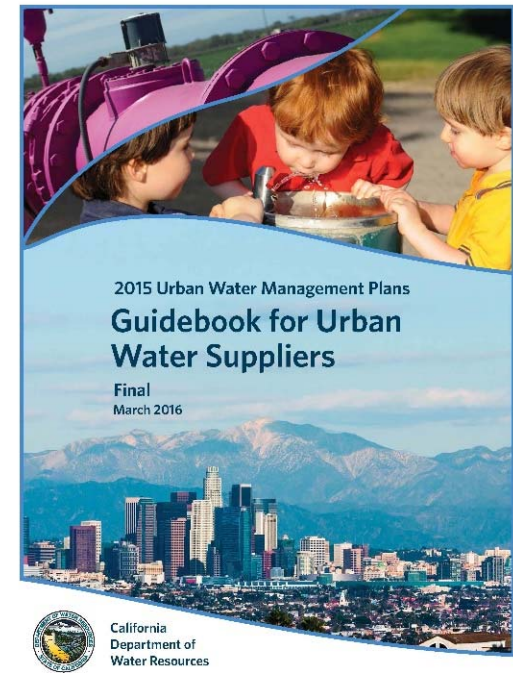
# Presentation Overview

- Background
- Key Components
- 2015 UWMP Plan Contents
- Demand and Supply Projections
- Urban Water Shortage Contingency Plan
- Recommendation



# What is an Urban Water Management Plan (UWMP)?

- A long-range planning tool required by State Law
  - Evaluates current and future water supplies compared to demands
  - Describes the adequacy and reliability of water supplies to meet existing and future projected demands
- Serves as a foundational document for SB 610 Water Supply Assessments
- A living document that is required to be updated at least every five years



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# UWMP Key Components

- Public Participation
- Water service area and system description
- Existing and future connections by customer type
- Water demand projections
- Water supply availability and reliability
- Current and future conservation efforts



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# Public Participation

- Feb 2016 – Sent 60 Day Notice to County, Cities, and Water Agency
- May 2016 – Bill Insert to all Santa Rosa Water customers
- Press Democrat Public Notice: May 26<sup>th</sup> and June 2<sup>nd</sup>
- Dedicated website: [srcity.org/uwmp](http://srcity.org/uwmp)
- Document available for review at City Hall, Municipal Service South Building and on website



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# Public Participation Opportunities

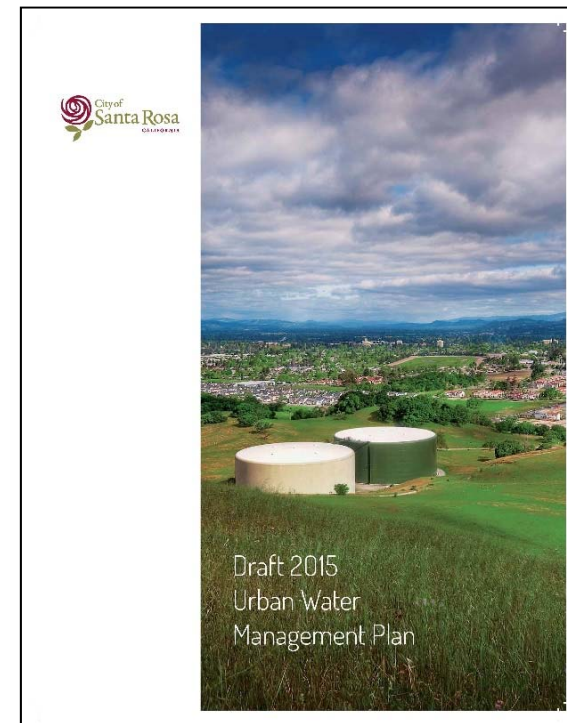
- BPU Water Conservation Subcommittee Meetings
  - February 9, 2016
  - March 9, 2016
  - April 14, 2016
- BPU Study Session – April 21, 2016
- Council Study Session – May 10, 2016
- BPU Recommendation – June 2, 2016
- Council Public Hearing – June 14, 2016



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# 2015 UWMP Contents

- Executive Summary
- Chapter 1 – Introduction/Overview
- Chapter 2 – Plan Preparation
- Chapter 3 – System Description
- Chapter 4 – System Water Use
- Chapter 5 – SB X7-7 Baselines and Targets
- Chapter 6 – System Supplies

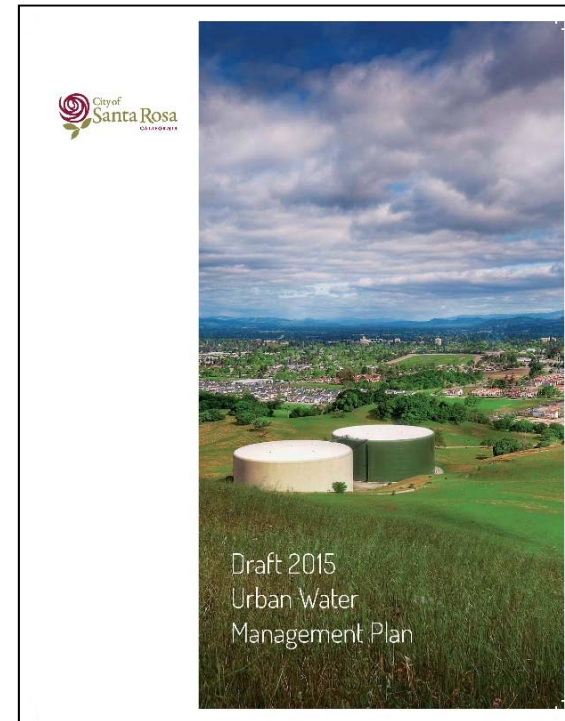


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# 2015 UWMP Contents

- Chapter 7 – Water Supply Reliability Assessment
- Chapter 8 – Water Shortage and Contingency Planning
- Chapter 9 – Demand Management Measures
- Chapter 10 – Plan Adoption, Submittal and Implementation
- Appendices A – O



# 2015 UWMP Appendices

- A – Legislative/Government requirements
- B – Adoption resolution
- C – Public Hearing Notice
- D – DWR Tables
- E – Water Demand Analysis
- F – AWWA Water Loss
- G – SB X7-7
- H – Regional Alliance Letter



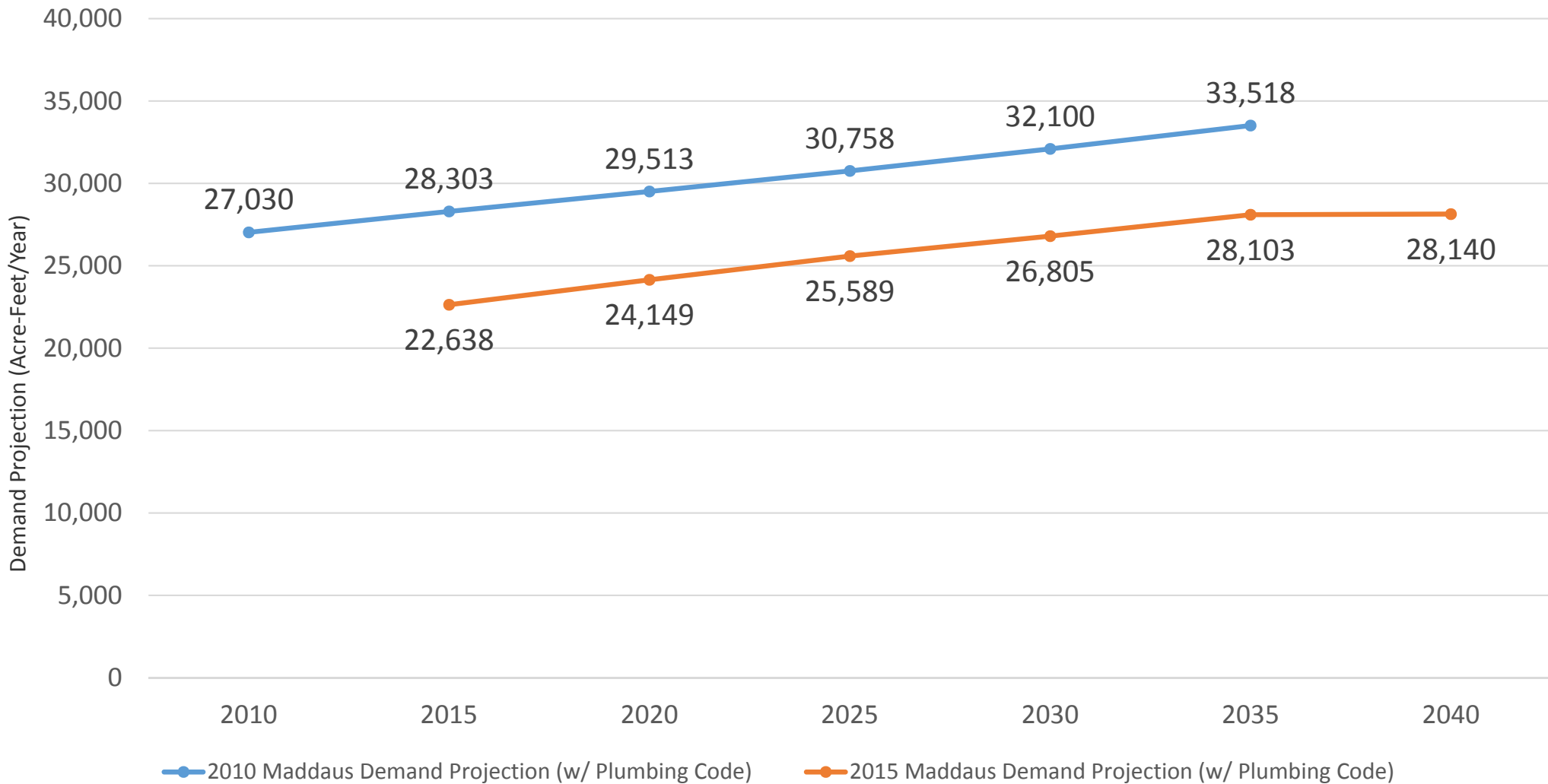
# 2015 UWMP Appendices

- I – SCWA Supply Reliability Tables
- J – Urban Water Shortage Contingency Plan
- K – CUWCC BMP Reporting
- L – City Water Rate Schedule
- M – DWR Checklist
- N – Voluntary Energy Intensity reporting
- O – Groundwater Management Plan



# System Demands

(2015 Demand Projection vs. 2010 Demand Projection)



# SBx7-7 – Water Conservation Act of 2009

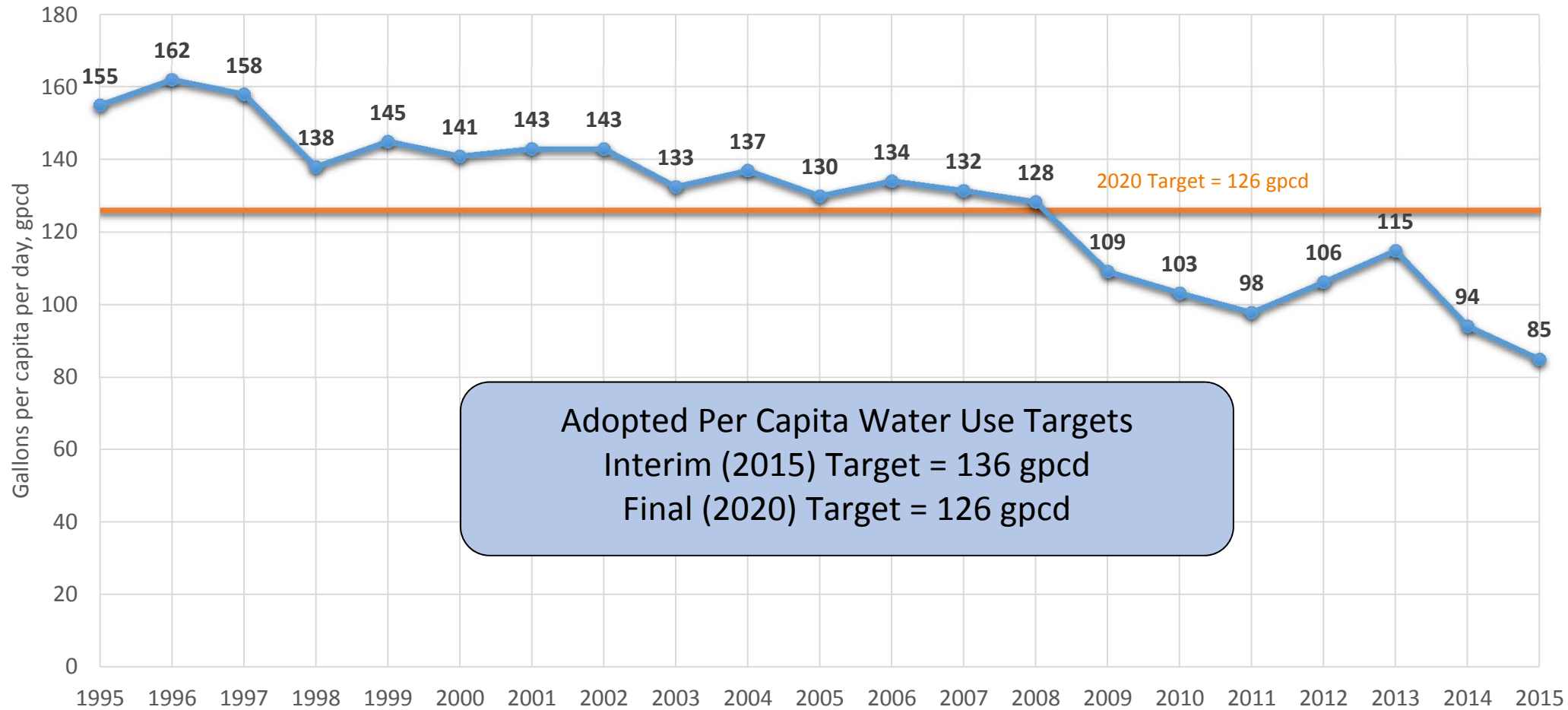
- Requires Statewide reduction in per capita water use
  - 10% by 2015 and 20% by 2020
- Targets adopted in 2010 UWMP
  - Interim 2015 Target was 136 gpcd
  - Final 2020 Target was 127 gpcd
  - Regional Alliance formed – another option for compliance
- Required to be reviewed in 2015 UWMP



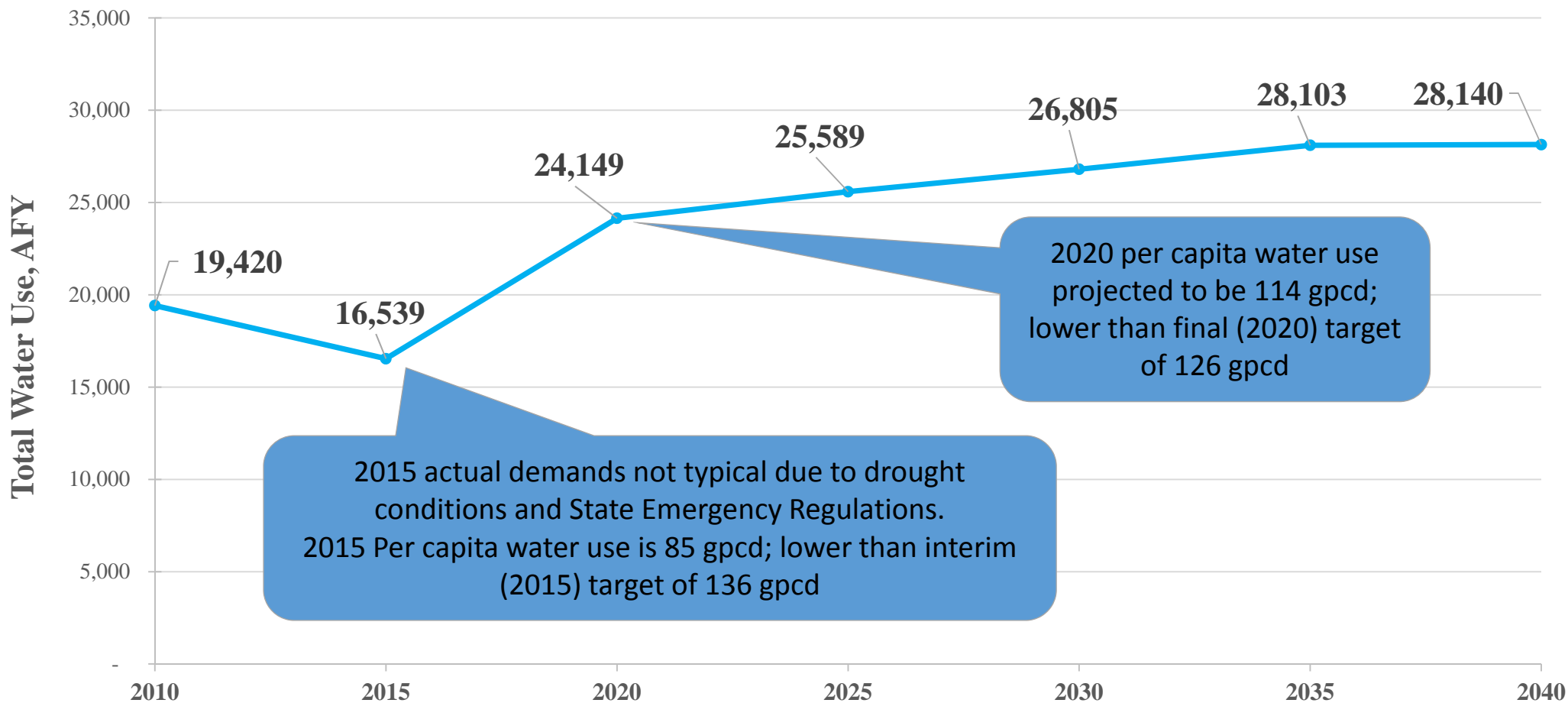
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# Per Capita Water Use



# City's Historical & Projected Water Use



# System Supplies

- Existing Supplies
  - SCWA Supply – 29,100 AFY
  - Farmers Lane Wells – 2,300 AFY
  - Recycled Water – 140 AFY
  - Water Conservation – incorporated in demand projection
- Additional Supplies
  - Water Conservation – up to 2,000 AFY

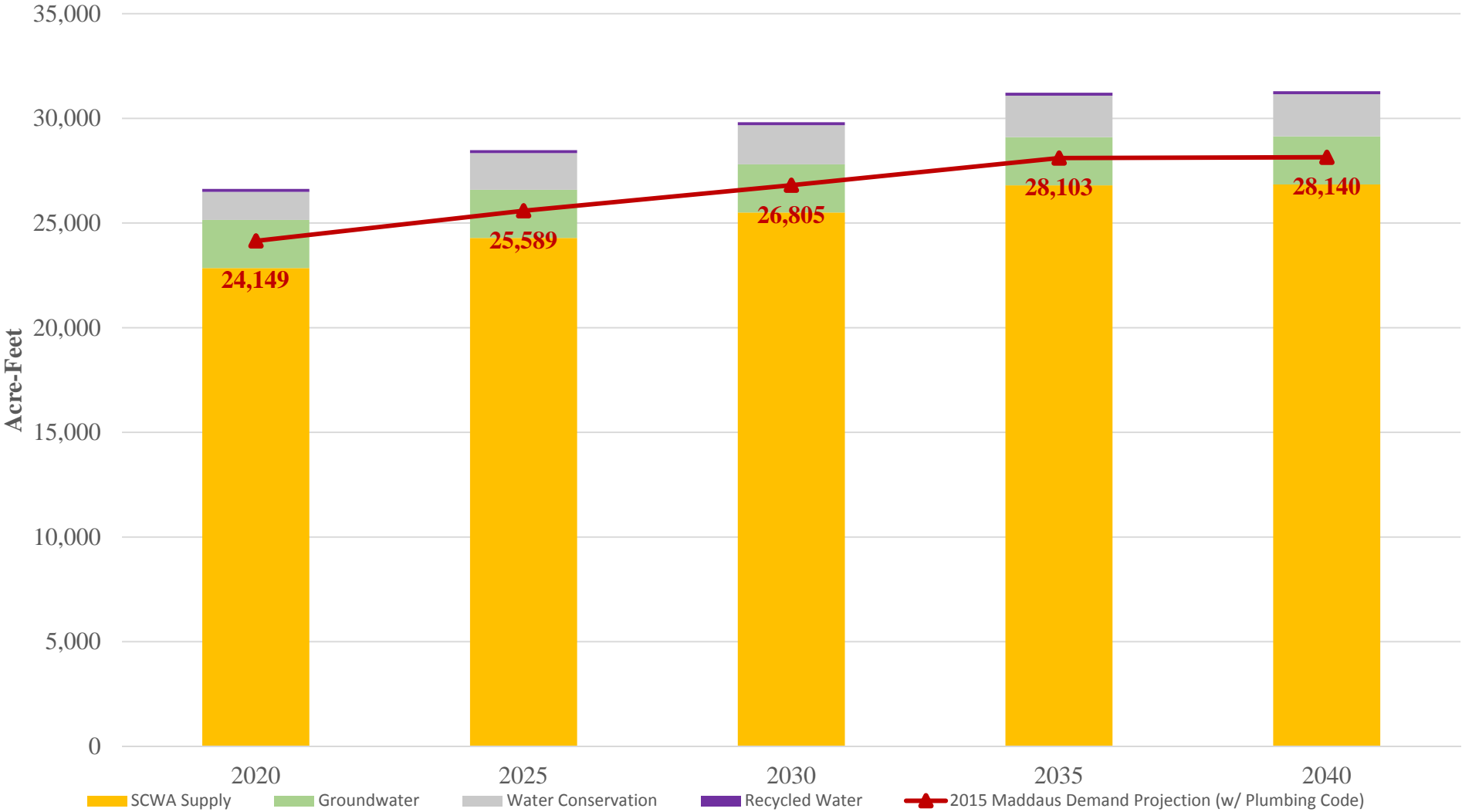


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# 2040 Demand and Supply Projection



# Urban Water Shortage Contingency Plan

- Provides guidance on how community will respond to water supply shortage of up to 50%
- Includes prohibitions on water use and consumption reduction methods for each stage
- Includes charges and penalties



# Proposed Changes

- Incorporating flexibility and lessons learned
- 2 new shortage stages
  - Currently 5 stages
  - Proposing 7 stages
- Minor changes to water use prohibitions
- Updated allocations
- Changes to water shortage charge and excess use penalty



# Rationing Stages and Reduction Goals

Supply Shortage	Rationing Stage	Overall Demand Reduction Goal	Program Type
Up to 10%	Stage 1	10%	Voluntary
11 – 15%	Stage 2	15%	Voluntary
16 – 20%	Stage 3	20%	Mandatory
21 – 25%	Stage 4	25%	Mandatory
26 – 30%	Stage 5	30%	Mandatory
31 – 40%	Stage 6	40%	Mandatory
41 – 50%+	Stage 7	50%+	Mandatory

# Reductions and Consumption Limits

	Stage 1	Stage 2	Stage 3	Stage 4
<b>Single-Family</b>	10%	15%	20%	25%
<b>Multi-family</b>	10%	15%	20%	25%
<b>Commercial/ Industrial/ Institutional</b>	10%	15%	20%	25%
<b>Irrigation</b>	10%	15%	20%	25%
<b>Health and Safety</b>	10%	15%	20%	25%

# Reductions and Consumption Limits

	Stage 5	Stage 6	Stage 7
<b>Single-Family</b>	51 gpcd & 2,400 gal/mo May-Oct	48 gpcd & 1,300 gal/mo May-Oct	41 gpcd
<b>Multi-family</b>	51 gpcd & moderate landscape amount	48 gpcd & min landscape amount	41 gpcd
<b>Commercial/ Industrial/ Institutional</b>	85% of previous 12 months use	80% of previous 12 months use	70% of previous 12 months use
<b>Irrigation</b>	42% of $ET_o$	23% of $ET_o$	Amount for mature trees & shrubs
<b>Health and Safety</b>	95% of previous 12 months use	90% of previous 12 months use	85% of previous 12 months use
GPCD = Gallons per capita per day $ET_o$ = Net Evapotranspiration			

# Water Shortage Rate Structure

- Designed to encourage reduction in use and protect financial condition of Utility
- Catastrophic Reserve
- Increased commodity rate through Water Shortage Charge (WSC)



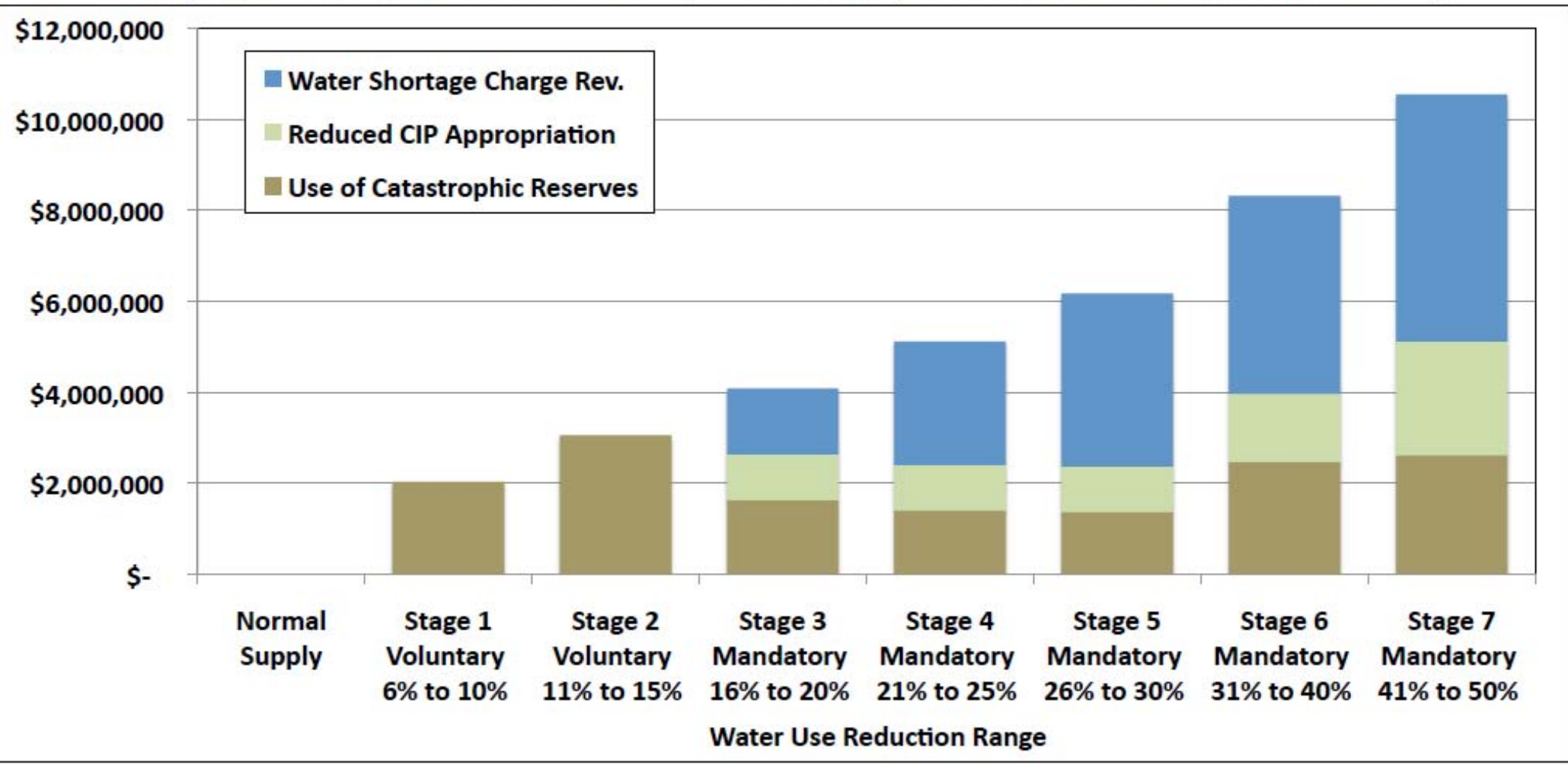
# Water Shortage Charge

- Stage 1 – Adopted rate
- Stage 2 – Adopted rate
- Stage 3 – Adopted Rate + 5% WSC
- Stage 4 – Adopted Rate + 10% WSC
- Stage 5 – Uniform Rate + 15% WSC
- Stage 6 – Uniform Rate + 20% WSC
- Stage 7 – Uniform Rate + 30% WSC





## Santa Rosa Water Bridging the Financial Deficit Created by Water Shortage Conditions and Reduced Water Usage



# Excess Use Penalty

- Applies to those that do not stay within allotment
- Not designed to augment general operating revenues
- Stages 5 – 7

Water use from 100% - 150% of allotment	Stage 5 – Water usage rate with WSC plus 10% EUP Stage 6 – Water usage rate with WSC plus 25% EUP Stage 7 – Water usage rate with WSC plus 50% EUP
Water use over 150% of allotment	Stage 5 – Water usage rate with WSC plus 20% EUP Stage 6 – Water usage rate with WSC plus 50% EUP Stage 7 – Water usage rate with WSC plus 100% EUP



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Sample Single Family Residential Charges**

Shortage Stage	Single Family Use Reduction Goal	Monthly Water Use (Gallons)	Monthly Service Charge	Water Usage Charge	Water Shortage Charge	Excess Use Penalty	Total Monthly Water Bill	Change from Normal Bill (3)
<b>Average Single Family Customer Meeting Reduction Goals (1)</b>								
Normal Conditions	0%	10,000	\$ 10.78	\$ 56.95	n/a	n/a	\$ 67.73	
Stage 1 Voluntary	10%	9,000	\$ 10.78	\$ 50.81	n/a	n/a	\$ 61.59	\$ (6.14)
Stage 2 Voluntary	15%	8,500	\$ 10.78	\$ 47.74	n/a	n/a	\$ 58.52	\$ (9.21)
Stage 3 Mandatory	20%	8,000	\$ 10.78	\$ 44.67	\$ 2.23	n/a	\$ 57.68	\$ (10.05)
Stage 4 Mandatory	25%	7,500	\$ 10.78	\$ 41.60	\$ 4.16	n/a	\$ 56.54	\$ (11.19)
Stage 5 Mandatory	(2)	6,990	\$ 10.78	\$ 38.47	\$ 5.77	\$ -	\$ 55.02	\$ (12.71)
Stage 6 Mandatory	(2)	5,620	\$ 10.78	\$ 30.06	\$ 6.01	\$ -	\$ 46.85	\$ (20.88)
Stage 7 Mandatory	(2)	3,690	\$ 10.78	\$ 19.37	\$ 5.81	\$ -	\$ 35.96	\$ (31.77)
<b>Average Single Family Customer With No Water Use Reduction (1)</b>								
Normal Conditions	0%	10,000	\$ 10.78	\$ 56.95	n/a	n/a	\$ 67.73	
Stage 1 Voluntary	10%	10,000	\$ 10.78	\$ 56.95	n/a	n/a	\$ 67.73	\$ -
Stage 2 Voluntary	15%	10,000	\$ 10.78	\$ 56.95	n/a	n/a	\$ 67.73	\$ -
Stage 3 Mandatory	20%	10,000	\$ 10.78	\$ 56.95	\$ 2.85	n/a	\$ 70.58	\$ 2.85
Stage 4 Mandatory	25%	10,000	\$ 10.78	\$ 56.95	\$ 5.70	n/a	\$ 73.43	\$ 5.70
Stage 5 Mandatory	(2)	10,000	\$ 10.78	\$ 56.95	\$ 8.54	\$ 2.82	\$ 79.09	\$ 11.36
Stage 6 Mandatory	(2)	10,000	\$ 10.78	\$ 56.95	\$ 11.39	\$ 18.09	\$ 97.21	\$ 29.48
Stage 7 Mandatory	(2)	10,000	\$ 10.78	\$ 56.95	\$ 17.09	\$ 108.09	\$ 192.91	\$ 125.18

**Notes:**

(1) Assumes single family customer with 5/8" meter, a 3-person household, summertime irrigation, and a sewer cap of 5,000 gallons.

(2) Stages 5, 6, and 7 include the following water use limitations:

	Per Capita gpcd	Irrigation gal/mo.
Stage 5	51	2,400
Stage 6	48	1,300
Stage 7	41	0

(3) Comparison is with water bill based on normal water usage and normal water rates.

# Additional Components

- No Changes proposed to the following sections:
  - Violations
  - Variance Procedures
  - Implementation Authority
  - Water Usage Monitoring



# Public Comments

- California Pool & Spa Association



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# Recommendation

- Recommended by the BPU and Water Department that the Council:
  - Adopt 2015 Urban Water Management Plan
  - Adopt 2015 Urban Water Shortage Contingency Plan, which is included as Appendix J of the 2015 Urban Water Management Plan
- If adopted:
  - Submit Final 2015 UWMP to DWR, California State Library and Sonoma County
  - Provide copies of the Final 2015 UWMP at City Hall, Municipal Service South Building and on website



# Questions?



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