

# CITY OF COALINGA



## DRAFT 2015 URBAN WATER MANAGEMENT PLAN

September 2020

Prepared by:



## TABLE OF CONTENTS

CHAPTER 1	INTRODUCTION AND OVERVIEW .....	1
1.1.	Background and Purpose .....	1
1.2.	Urban Water Management Planning and the California Water Code .....	1
1.2.1.	Urban Water Management Planning Act of 1983 .....	1
1.2.2.	Applicable changes to the Water Code since 2010 .....	2
1.2.3.	Water Conservation Act of 2009 (SB X7-7) .....	3
1.3.	Urban Water Management Plan in Relation to Other Planning Efforts .....	3
1.4.	UWMP Organization .....	3
CHAPTER 2	PLAN PREPARATION .....	5
2.1.	Introduction .....	5
2.2.	Basis for Preparing a Plan .....	5
2.2.1.	Public Water Systems.....	6
2.2.2.	Agencies Serving Multiple Service Areas/Public Water Systems.....	6
2.3.	Individual or Regional Planning and Compliance.....	7
2.4.	Fiscal or Calendar Year and Units of Measure .....	7
2.4.1.	Fiscal or Calendar Year .....	7
2.4.2.	Reporting Complete 2015 Data .....	7
2.4.3.	Units of Measure.....	7
2.5.	Coordination and Outreach .....	8
2.5.1.	Wholesale and Retail Coordination .....	8
2.5.2.	Coordination with Other Agencies and the Community.....	9
2.5.3.	Notice to Cities and Counties.....	9
CHAPTER 3	SYSTEM DESCRIPTION .....	11
3.1.	General Description .....	11
3.2.	Service Area Maps.....	11
3.3.	Service Area Climate .....	11
3.4.	Service Area Population.....	13
CHAPTER 4	SYSTEM WATER USE.....	15

---

4.1.	Introduction .....	15
4.2.	Recycled versus Potable and Raw Water Demand .....	15
4.3.	Water Use by Sector .....	15
4.4.	Distribution System Losses .....	17
4.5.	Future Water Savings.....	18
4.6.	Water Use for Lower Income Households .....	19
4.7.	Climate Change .....	20
CHAPTER 5	BASELINES AND TARGETS .....	22
5.1.	Introduction .....	22
5.2.	Updating Calculations from 2010 UWMP .....	22
5.2.1.	Target Method .....	22
5.2.2.	SBX7-7 Verification Form .....	24
5.3.	Baseline Periods.....	24
5.3.1.	Determination of the 10-15 Year Baseline Period (Baseline) .....	24
5.3.2.	Determination of the 5 Year Baseline (Target Confirmation).....	25
5.4.	Service Area Population .....	25
5.4.1.	Population Methodology .....	26
5.5.	Gross Water Use .....	26
5.6.	Baseline Daily per Capita Water Use .....	28
5.7.	2015 and 2020 Targets.....	29
5.7.1.	Target Method .....	30
5.7.2.	Target Confirmation – Use of 5 Year Baseline .....	30
5.7.3.	2015 Interim Urban Water Use Target .....	31
5.7.4.	Baselines and Targets Summary .....	31
5.8.	2015 Compliance Daily per Capita Water Use .....	31
5.8.1.	Meeting the 2015 Target .....	32
5.8.2.	Adjustments to Gross Water Use.....	32
CHAPTER 6	SYSTEM SUPPLIES.....	34
6.1.	Purchased Water.....	34
6.2.	Groundwater.....	34

---

6.2.1.	Groundwater Quality .....	34
6.2.2.	Basin Description .....	34
6.2.3.	Groundwater Management .....	35
6.3.	Surface Water .....	35
6.3.1.	Existing Surface Water Treatment Plant.....	36
6.3.2.	Filtered Water Pump Station .....	36
6.3.3.	Storage Reservoirs .....	36
6.3.4.	Booster Pump Station .....	37
6.3.5.	Water Distribution System.....	37
6.4.	Stormwater .....	37
6.5.	Wastewater and Recycled Water .....	37
6.5.1.	Recycled Water Coordination .....	37
6.5.2.	Wastewater Collection, Treatment, and Disposal .....	38
6.5.3.	Recycled Water System.....	41
6.5.4.	Recycled Water Beneficial Uses .....	41
6.5.5.	Actions to Encourage and Optimize Future Recycled Water Use.....	45
6.6.	Desalinated Water Opportunities.....	45
6.7.	Exchanges or Transfers .....	46
6.8.	Future Water Projects.....	46
6.9.	Summary of Existing and Planned Sources .....	47
6.10.	Climate Change Impacts to Supply .....	50
CHAPTER 7	WATER SUPPLY RELIABILITY ASSESSMENT .....	51
7.1.	Introduction .....	51
7.2.	Constraints on Water Sources .....	51
7.2.1.	Water Quality.....	51
7.2.2.	Climatic Changes .....	52
7.2.3.	Legal Constraints.....	52
7.3.	Reliability by Type of Year.....	53
7.4.	Supply and Demand Assessment .....	54
7.4.1.	Normal Year .....	54

7.4.2.	Single Dry Year .....	54
7.4.3.	Multiple Dry year .....	55
7.5.	Regional Supply Reliability .....	56
CHAPTER 8	WATER SHORTAGE CONTINGENCY PLANNING .....	57
8.1.	Introduction .....	57
8.2.	Stages of Action .....	58
8.3.	Prohibitions on End Uses .....	60
8.3.1.	Landscape Irrigation.....	62
8.3.2.	Commercial, Industrial, & Institutional (CII) .....	63
8.3.3.	Water Features and Swimming Pools .....	63
8.3.4.	Defining Water Features .....	63
8.3.5.	Other .....	64
8.4.	Penalties, Charges, Other Enforcement of Prohibitions .....	64
8.5.	Consumption Reduction Methods .....	66
8.5.1.	Categories of Consumption Reduction Methods.....	66
8.5.2.	Rate Structures.....	67
8.6.	Determining Reductions .....	68
8.7.	Revenue and Expenditure Impacts .....	68
8.8.	Resolution or Ordinance .....	68
8.9.	Catastrophic Supply Interruption.....	69
8.10.	Minimum Supply Next Three Years.....	70
CHAPTER 9	DEMAND MANAGEMENT MEASURES.....	71
9.1.	Introduction .....	71
9.2.	Demand Management Measures for Retail Agencies .....	71
9.2.1.	Water Waste Prevention Ordinance.....	72
9.2.2.	Metering.....	72
9.2.3.	Conservation Pricing .....	73
9.2.4.	Public Education and Outreach.....	73
9.2.5.	Programs to Assess and Manage Distribution System Real Loss .....	73
9.2.6.	Water Conservation Program Coordination and Staffing Support .....	74

---

---

9.2.7.	Other Demand Management Measures .....	74
9.3.	Implementation over the Past Five Years .....	74
9.4.	Planned Implementation to Meet Water Use Targets .....	76
9.5.	Members of the California Urban Water Conservation Council .....	76
CHAPTER 10	PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION .....	77
10.1.	Inclusion of all 2015 Data .....	77
10.2.	Notice of Public Hearing .....	77
10.2.1.	Notice to Cities and Counties .....	77
10.2.2.	Notice to the Public .....	77
10.3.	Public Hearing and Adoption .....	78
10.3.1.	Adoption .....	78
10.4.	Plan Submittal .....	79
10.4.1.	Submitting a UWMP to DWR .....	79
10.4.2.	Submitting UWMP to the California State Library .....	79
10.4.3.	Submitting UWMP to the Cities and Counties .....	79
10.5.	Public Availability .....	79
10.6.	Amending an Adopted Plan .....	80
APPENDIX A URBAN WATER MANAGEMENT PLAN ACT		
APPENDIX B WATER CONSERVATION ACT (SB X7-7)		
APPENDIX C NOTIFICATION LETTER		
APPENDIX D SERVICE AREA MAP		
APPENDIX E SB X7-7 VERIFICATION FORM		
APPENDIX F GROUNDWATER BULLETIN 118		
APPENDIX G WATER CONSERVATION ORDINANCE		
APPENDIX H WATER RATE STRUCTURE		
APPENDIX I NOTICE OF PUBLIC HEARING (NOT INCLUDED IN DRAFT VERSION)		
APPENDIX J ADOPTING RESOLUTION (NOT INCLUDED IN DRAFT VERSION)		
APPENDIX K UWMP COMPLETION CHECKLIST		

---

---

## **List of Tables**

Table 1-1 Changes to the CWC since 2010 .....	2
Table 2-1 Retail Only: Public Water Systems (Standard Table 2-1) .....	6
Table 2-2 Plan Identification (Standard Table 2-2) .....	7
Table 2-3 Agency Identification (Standard Table 2-3) .....	7
Table 2-4 Water Supplier Information Exchange (Standard Table 2-4) .....	8
Table 3-1 Climate Data .....	12
Table 3-2 Population - Current and Projected (Standard Table 3-1) .....	14
Table 4-1 Retail: Demands for Potable and Raw Water - Actual .....	16
Table 4-2 Projected Number of Total Connections by User Type .....	16
Table 4-3 Demands for Potable and Raw Water - Projected (Standard Table 4-2) .....	17
Table 4-4 Total Water Demands (Standard Table 4-3) .....	17
Table 4-5 12 Month Water Loss Audit Reporting (Standardized Table 4-4) .....	18
Table 4-6 Projected Number of Additional Low Income Housing Units .....	20
Table 4-7 Projected Number of Additional Low-Income Housing Units .....	20
Table 4-8 Inclusion in Water Use Projections (Standard Table 4-5) .....	20
Table 5-1 Service Area Population (SB X7-7 Table 3) .....	26
Table 5-2 Annual Gross Water Use (SB X7-7 Table 4) .....	27
Table 5-3 Gallons Per Capita Per Day GPCD (SB X7-7 Table 5) .....	28
Table 5-4 Summary of Baselines and Current Consumption (SB X7-7 Table 6) .....	29
Table 5-5 Target Method 1 (SB X7-7 Table 7-A) .....	30
Table 5-6 Confirm Minimum Reduction for 2020 Target (SB X7-7 Table 7-F) .....	30
Table 5-7 2015 Interim Target GPCD (SB X7-7 Table 8) .....	31
Table 5-8 Baselines and Targets Summary (Standard Table 5-1) .....	31
Table 5-9 2015 Compliance (Standard Table 5-2) .....	33
Table 6-1 Wastewater Collected Within Service Area in 2015 (Standard Table 6-2) .....	38
Table 6-2 Wastewater Treatment and Discharge Within Service Area in 2015 (Standard Table 6-3) .....	40
Table 6-3 Current and Projected Recycled Water Direct Beneficial Uses Within Service Area (Standardized Table 6-4) .....	43
Table 6-4 2005 UWMP Recycled Water Use Projection Compared to 2015 Actual (Standard Table 6-5) .....	44

Table 6-5 Methods to Expand Future Recycled Water Use (Standard Table 6-6) .....	45
Table 6-6 Expected Future Water Supply Projects or Programs (Standard Table 6-7).....	47
Table 6-7 Water Supplies — Actual (Standard Table 6-8) .....	48
Table 6-8 Water Supplies — Projected (Standard Table 6-9) .....	49
Table 7-1 Basis of Water Year Data (Standard Table 7-1).....	53
Table 7-2 Normal Year Supply and Demand Comparison (Standard Table 7-2).....	54
Table 7-3 Single Dry Year Supply and Demand Comparison (Standard Table 7-3).....	55
Table 7-4 Multiple Dry Years Supply and Demand Comparison (Standard Table 7-4) .....	55
Table 8-1 Stages of Water Shortage Contingency Plan (Standard Table 8-1).....	60
Table 8-2 Restrictions and Prohibitions on End Uses (Standardized Table 8-2) .....	61
Table 8-3 Stages of Water Shortage Contingency Plan - Consumption Reduction Methods (Standard Table 8-3) .....	66
Table 8-4 Minimum Supply Next Three Years (Standard Table 8-4).....	70
Table 10-1 Notification to Cities and Counties (Standard Table 10-1) .....	79



## ABBREVIATIONS

AWWA	American Water Works Association
AB	Assembly Bill
AF	Acre-Feet
BMP	Best Management Practices
CCR	California Code of Regulations
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
CVP	Central Valley Project
City	City of Coalinga
CII	Commercial, Industrial, & Institutional
COG	Council of Governments
DMM	Demand Management Measures
DOF	Department of Finance
DWR	Department of Water Resources
DDW	Division of Drinking Water
eARDWP	Electronic Annual Reports to the Drinking Water Program
ET <sub>o</sub>	Evapotranspiration Rate
Ft	Feet
GAL	Gallons
GPCPD	Gallons per Capita per Day
GPM	Gallons per Minute
GHG	Greenhouse Gas
HCD	California Department of Housing and Community Development
HE	High-Efficiency
HP	Horsepower
CCF	Hundred Cubic Feet
in	Inch
in/month	Inch per Month
ITP	Independent Technical Panel
ITPIRWMP	Integrated Regional Water Management Plan

LAFCo	Local Agency Formation Commission
MG	Million Gallons
mgd	Million Gallons per Day
mg/L	Milligrams per liter
MFR	Multiple Family Residential
M&I	Municipal and Industrial
PWS	Public Water System
Reclamation	United States Bureau of Reclamation
SB	Senate Bill
SFR	Single Family Residential
SOI	Sphere of Influence
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
µg/L	Microgram per liter
ULF	Ultra Low Flush
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Plan Act
WCP	Water Conservation Plan
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant
WIIN	Water Infrastructure for Improvements to the Nation
WWTP	Wastewater Treatment Plant
WDR	Waste Discharge Requirement

## **CHAPTER 1 INTRODUCTION AND OVERVIEW**

### **1.1. Background and Purpose**

The California Water Code requires all urban water suppliers within the state to prepare and adopt Urban Water Management Plans (UWMP) for submission to the California Department of Water Resources (DWR). The UWMPs must be updated every five years and satisfy the requirements of the Urban Water Management Planning Act of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections or supplying more than 3,000 acre-feet (AF) of water annually, to prepare an UWMP.

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions. This report, which was prepared in compliance with the California Water Code, and as set forth in the guidelines and format established by the DWR, is the City of Coalinga's (City) 2015 UWMP.

### **1.2. Urban Water Management Planning and the California Water Code**

Water planning is an essential function of water suppliers but is critical as California grapples with ongoing drought and expected long-term climate changes. Prior to the adoption of the Urban Water Management Planning Act (UWMPA), there were no specific requirements that water agencies conduct long-term resource planning. While many water agencies had conducted long-term water supply and resource planning prior to the Act, those who had not were left vulnerable to supply disruptions during dry periods or catastrophic events.

#### **1.2.1. Urban Water Management Planning Act of 1983**

In 1983, State Assembly Bill (AB) 797 modified the California Water Code Division 6, by creating the UWMPA. Several amendments to the original UWMPA, which were introduced since 1983, have increased the data requirements and planning elements to be included in this 2015 UWMP.

Initial amendments to the UWMPA required that total projected water use be compared to water supply sources over the next 20 years, in 5-year increments. Recent DWR guidelines also suggest projecting through a 25-year planning horizon to maintain a 20-year timeframe until the next UWMP update has been completed and for use in developing Water Supply Assessments.

Other amendments require that UWMPs include provisions for recycled water use, demand management measures, and a water shortage contingency plan. Recycled water was added in the reporting requirements for water usage and figures prominently in the requirements for evaluation of alternative water supplies, when future projections predict the need for additional water supplies. Each urban water purveyor must coordinate the preparation of the water shortage contingency plan with other urban water purveyors in the area, to the extent practicable. Each water supplier must also describe their water demand management measures that are being implemented or scheduled for implementation.

In addition to the UWMPA and its amendments, there are several other regulations that are related to the content of the UWMP. In summary, the key relevant regulations are:

- AB 1420: Requires implementation of demand management measures (DMMs)/best management practices (BMPs) and meeting the 20 percent reduction by 2020 targets (mandated by SBx7-7) to qualify for water management grants or loans.
- AB 1465: Requires water suppliers to describe opportunities related to recycled water use and stormwater recapture to offset potable water use.
- Amendments Senate Bill (SB) 610 (Costa, 2001), and SB 221 (Daucher, 2001), which became effective beginning January 1, 2002, require counties and cities to consider information relating to the availability of water to supply new large developments by mandating the preparation of further water supply planning (Daucher) and Water Supply Assessments (Costa).
- SB 1087: Requires water suppliers to report single family residential (SFR) and multifamily residential (MFR) projected water use for planned lower income units separately.
- Amendment SB 318 (Alpert, 2004) requires the UWMP to describe the opportunities for development of desalinated water, including but not limited to, ocean water, brackish water, and groundwater, as long-term supply.
- AB 105 (Wiggins, 2004) requires urban water suppliers to submit their UWMPs to the California State Library.
- SBx7-7: Requires development and use of new methodologies for reporting population growth estimates, base per capita use, and water conservation. This water bill also extended the 2010 UWMP adoption deadline for retail agencies to July 1, 2011.

The UWMPA is included for reference in Appendix A.

### 1.2.2. Applicable changes to the Water Code since 2010

Table 1-1 provides a summary of the changes to the California Water Code (CWC) since 2010:

Table 1-1 Changes to the CWC since 2010			
Topic	CWC Section	Legislative Bill	Summary
Demand Management Measures	10631 (f)(1) and (2)	AB 2067 Weber 2014	Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets.
Submittal Date	10621 (d)	AB 2067 Weber 2014	Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016.

**Table 1-1 Changes to the CWC since 2010**

Topic	CWC Section	Legislative Bill	Summary
Submittal Format	10644 (a) (2)	SB 1420 Wolk 2014	Requires the plan, or amendments to the plan, to be submitted electronically to the department.
Standardized Forms	10644 (a) (2)	SB 1420 Wolk 2014	Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the department.
Water Loss	10631 (e) (1) (J) and (e) (3) (A) and (B)	SB 1420 Wolk 2014	Requires a plan to quantify and report on distribution system water loss.

### 1.2.3. Water Conservation Act of 2009 (SB X7-7)

The Water Conservation Act of 2009 required retail urban water suppliers to report in their UWMPs their Base Daily Per capita Water Use (Baseline GPCPD), 2015 Interim Urban Water Use Target, 2020 Urban Water Use Target, and Compliance Daily per Capita Water Use. These terms are defined in Methodologies for Calculating Baseline and Compliance Urban per Capita Water Use, DWR 2011 (Methodologies) consistent with SB X7-7 requirements.

Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. The complete text of the Water Conservation Act is in Appendix B. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020.

## 1.3. Urban Water Management Plan in Relation to Other Planning Efforts

Urban suppliers provide information on water management specific to their service areas. However, water management does not happen in isolation; there are other planning processes that integrate with the UWMP to accomplish urban planning. Some of these plans include city and county General Plans, Water Master Plans, Recycled Water Master Plans, integrated resource plans, Integrated Regional Water Management Plans, Groundwater Management Plans, and others.

This 2015 UWMP relies on planning documents prepared by the City of Coalinga, the City's 2007-2027 General Plan and the Fresno County Multi-Jurisdictional 2015-2023 Housing Element.

## 1.4. UWMP Organization

This 2015 UWMP has been organized following the DWR's recommended outline. The following is a description of the Chapters and a brief description of the content in each Chapter:

- ❖ **Chapter 1 - Introduction and Overview:** This introductory chapter provides a discussion on the importance and extent of the City of Coalinga's (City) water management planning efforts.

- ❖ **Chapter 2 - Plan Preparation:** This chapter provides information on the process followed for developing the UWMP, including efforts in coordination and outreach.
- ❖ **Chapter 3 - System Description:** This chapter includes maps of the service area, a description of the service area and climate, the Public Water System, and the City's organizational structure and history.
- ❖ **Chapter 4 - System Water Use:** This chapter describes and quantifies the current and projected water uses within the City's service area.
- ❖ **Chapter 5 - Baselines and Targets:** This chapter describes the method used for calculating the baseline and target water consumption. This chapter also demonstrates that the City has achieved the 2015 interim water use target, and the City's plans for achieving the 2020 water use target.
- ❖ **Chapter 6 - System Supplies:** This chapter describes and quantifies the current and projected sources of water available to the agency. This chapter also includes a description and quantification of potential recycled water uses and supply availability.
- ❖ **Chapter 7 - Water Supply Reliability:** This chapter describes the reliability of the City's water supply and project the reliability out 20 years. This description is provided for normal, single dry years and multiple dry years.
- ❖ **Chapter 8 - Water Shortage Contingency Planning:** This chapter provides the City's staged plan for dealing with water shortages, including a catastrophic supply interruption.
- ❖ **Chapter 9 - Demand Management Measures:** This chapter communicates the City's efforts to promote conservation and to reduce demand and specifically addresses several demand management measures.
- ❖ **Chapter 10 - Plan Adoption, Submittal, and Implementation:** This chapter describes the steps taken to adopt and submit the UWMP and to make it publicly available. This chapter also includes a discussion of the City's plan to implement the UWMP.

## CHAPTER 2 PLAN PREPARATION

### 2.1. Introduction

This chapter provides the basis for preparing the 2015 UWMP and describes the various levels of regional coordination that the City has employed. It also describes the reporting period and the units of measure used by the City to report water volumes throughout the 2015 UWMP.

Finally, this chapter also provides a description of the coordination and outreach efforts followed in the preparation of the 2015 UWMP. Coordination and outreach are key elements to developing a useful and accurate UWMP.

### 2.2. Basis for Preparing a Plan

#### *CWC 10617*

*“Urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems...*

#### *CWC 10620 (b)*

*Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.*

#### *CWC 10621*

*(a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in section (d).*

*(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.*

According to the Department of Finance (DOF), in 2015 the City of Coalinga provided water for municipal purposes to a population of approximately 16,626. During this year, water was supplied to City residents through 3,647 active service connections. Thus, the City is classified as an “urban water supplier” as defined by Section 10617 of the CWC. In accordance with the CWC, as an urban water supplier the City is required to update its urban water management plan every five years. In June 2015, the City completed and approved their 2010 UWMP. However, the City’s 2010 UWMP was not filled with the DWR.

The City has prepared this update to the 2010 UWMP to ensure the efficient use of available water supplies, determine existing baseline water consumption, establish water use targets, describe and evaluate the existing water system and historical and projected water use, evaluate current and projected

water supply reliability, describe and evaluate demand management measures, and provide water shortage contingency plans as required by the UWMP Act.

### 2.2.1. Public Water Systems

*CWC 10644*

*(a)(2) The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department.*

*CWC 10608.52*

*(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.*

*(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24... The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.*

*California Health and Safety Code 116275 (h)*

*"Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*

The City of Coalinga is a public water system (PWS#1010004) and is regulated by the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW). The SWRCB-DDW requires reporting on public water systems.

The City files electronic Annual Reports to the Drinking Water Program (eARDWP) to the Board, which include annual reports of water usage and other information. The information provided in this UWMP is consistent with the data reported in the eARDWP.

### 2.2.2. Agencies Serving Multiple Service Areas/Public Water Systems

The City of Coalinga serves only one PWS. Information about that PWS is shown below in Table 2-1.

Table 2-1 Retail Only: Public Water Systems (Standard Table 2-1)			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied in 2015 (MG)
CA1010004	City of Coalinga	3,647	1,166



## 2.3. Individual or Regional Planning and Compliance

The City has developed this 2015 UWMP covering only its agency service area and addressing all requirements of the Water Code. The City is not part of any regional alliances for planning purposes, as shown in Table 2-2.

Table 2-2 Plan Identification (Standard Table 2-2)	
<input checked="" type="checkbox"/>	Individual UWMP
<input type="checkbox"/>	Regional UWMP (RUWMP)

## 2.4. Fiscal or Calendar Year and Units of Measure

*CWC 1608.20*

*(a)(1) Urban retail water suppliers...may determine the targets on a fiscal year or calendar year basis.*

### 2.4.1. Fiscal or Calendar Year

Water suppliers may report on either a fiscal or calendar year basis. DWR prefers that agencies report on a calendar year basis in order to ensure UWMP data is consistent with data submitted to other reports to the State.

The City of Coalinga is reporting on a calendar year basis. All data included in this 2015 UWMP is consistent with the calendar year basis.

### 2.4.2. Reporting Complete 2015 Data

The 2015 UWMPs are required to include the water use and planning data for the entire calendar year of 2015, if an agency is reporting on a calendar year basis. This 2015 UWMP contains information for the entire year of 2015.

### 2.4.3. Units of Measure

Water agencies use various units of measure when reporting water volumes, such as acre-feet (AF), million gallons (MG), or hundred cubic feet (CCF). Agencies may report volumes of water in any of these units, but must maintain consistency throughout the UWMP.

The City of Coalinga reports water volumes in million gallons (MG). For consistency, this 2015 UWMP also uses MG as the reporting units. Table 2-3 shows the type of agency, type of reporting year, and the units of measurement used throughout the 2015 UWMP.

Table 2-3 Agency Identification (Standard Table 2-3)	
Type of Agency	
<input type="checkbox"/>	Agency is a wholesaler

Table 2-3 Agency Identification (Standard Table 2-3)	
Type of Agency	
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
Units of Measure Used in UWMP	
Unit	Million Gallons (MG)
NOTES:	

## 2.5. Coordination and Outreach

CWC 10631

*(j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).*

### 2.5.1. Wholesale and Retail Coordination

When a water supplier relies upon a wholesale agency for a water supply, both suppliers are required to provide each other with information regarding projected water supply and demand. The projections should be consistent with each agency's supply and demand projections.

The City of Coalinga does not receive water from any wholesale agency. Table 2-4 is included below to indicate that the information requested does not apply to the City of Coalinga.

Table 2-4 Water Supplier Information Exchange (Standard Table 2-4)
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name
Not Applicable

**Table 2-4 Water Supplier Information Exchange (Standard Table 2-4)**

The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.

Wholesale Water Supplier Name

NOTES:

### 2.5.2. Coordination with Other Agencies and the Community

*CWC 10620*

*(d)(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.*

*CWC 10642*

*Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan...*

In the preparation of this 2015 UWMP the City has coordinated with other appropriate agencies in the area, to the extent practicable. The following is a list of agencies and organizations that the City has contacted in the preparation of this 2015 UWMP:

- United States Bureau of Reclamation
- Westland's Water District
- Coalinga-Huron Unified School District

A copy of the letter sent to each of those agencies is included in Appendix C.

### 2.5.3. Notice to Cities and Counties

*CWC 10621 (b)*

*Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

Agencies must notify cities and counties within which they serve water that the UWMP is being updated and reviewed. The City provided formal written notice to the County of Fresno and the general public that

the City's UWMP was being updated. In accordance with the UWMPA, this notification was provided at least 60 days prior to the public hearing of the Plan. Appendix C contains a copy of the outreach documents.

- County of Fresno
- General Public

## CHAPTER 3 SYSTEM DESCRIPTION

### 3.1. General Description

*CWC Section 10631 (a)*

*Describe the service area of the supplier...*

The City of Coalinga is located in the Pleasant Valley at the base of the coastal mountain range on the western side of California’s Central Valley within Fresno County. The City is a public agency that provides water and sewer service to all residential, commercial, and industrial customers and for fire protection use. During 2015, the City served a total population of approximately 16,626 through 3,647 active service connections.

Located approximately 60 miles northeast from Coalinga is the City limits of Fresno, the Central Valley’s largest city and the state’s fifth largest city. Interstate 5 runs north to south approximately ten miles east of Coalinga. The County of Monterey lies to the west and Kings County to the east.

According to the U.S. Census Bureau (Census), there were 8,212 people living in Coalinga in 1990, 11,668 in 2000 and 13,380 in 2010. These population estimates represent an average annual growth rate of approximately 2.47 percent from 1990 through 2010. This increase in population is primarily a reflection of the regional growth pressures that are affecting the Central Valley as people living in more expensive regions look for affordable housing in the Valley.

The City of Coalinga is the governing agency and the sole purveyor of water within the City limits. The City adopted the City of Coalinga 2025 General Plan (General Plan) in June 2009. The General Plan assesses delineated land use areas referred to as the Sphere of Influence (SOI), which is larger than the City limits. The SOI includes land over which the City does not have complete jurisdiction; however, the City has the option to annex the land and develop it in the future.

According to the Fresno Local Agency Formation Commission (LAFCo), the City’s SOI encompasses approximately 9.05 square miles (5,793 acres) and is recognized as the ultimate growth boundary over the life of the City. Land uses within the City include single family residential, multi-family residential, mixed use, commercial, manufacturing/ business, public facilities, recreation, open space/conservation, agricultural, and street right of ways. The SOI is recognized as the ultimate growth boundary over the life of the City’s current General Plan. This 2015 UWMP assumes that the SOI describes the future water system service area.

### 3.2. Service Area Maps

Service area maps are included in Appendix D of this 2015 UWMP. The service area maps display the City limits and the potable water service area boundary.

### 3.3. Service Area Climate

*CWC Section 10631 (a)*

*Describe the service area of the supplier, including... climate...*

As previously stated, the City of Coalinga is located in the Pleasant Valley, a northwest to southeast trending alluvial basin, which is at the base of the Diablo Range and at the western boundary of the San Joaquin Valley. The Pleasant Valley has an arid climate, which leads to summers that are typically long and hot with mild and dry winters.

Climate within the City of Coalinga is typical of that of the Southern San Joaquin Valley, cool and foggy during the winters with little precipitation, and hot and dry summers with little to no rainfall. Coalinga enjoys a very high percentage of sunshine, averaging over 260 sunny days per year. According to the Western Regional Climate Center, the average maximum and minimum temperatures for the Coalinga area are 78.5°F and 49.0°F. Topography of the Coalinga area consist of flat to gently rolling hills, with perennial streambeds bisecting the area, which originate on the eastern side of the inner Coast Range and drain from west to east. Elevations in the area range from 660 to 680 feet above sea level.

The average annual precipitation in Coalinga is approximately 7.61 inches. Precipitation in the San Joaquin Valley is strongly influenced by the position of the semi-permanent subtropical high-pressure belt located off the Pacific coast. In the winter, this high-pressure system moves southward, allowing Pacific storms to move through San Joaquin Valley. These storms bring in moist, maritime air that produces considerable precipitation on the western up-slope side of the Coast Ranges. Temperatures in winter typically range from 38°F at night to 58°F during the daytime.

During the summer, wind usually originates at the north end of the San Joaquin Valley and flows in a south-southeasterly direction, through Tehachapi pass, and then into the Southeast Desert Air Basin. Since it typically does not rain in the summer and the sky is clear, strong sunlight drives the formation of ozone smog. Summer temperatures typically range from a low of 65°F at night to a high around 100°F.

The evapotranspiration rate ( $ET_o$ ), which is an indicator of how much water is required to maintain healthy agriculture and landscaping, ranges from 1.72 to 9.93 inches per month (in/month) and averages 5.67 inches (in) per month, with highest  $ET_o$  occurring during the months of May through September. Table 3-1 summarizes the temperature, precipitation, and  $ET_o$  averages for the service area.

Table 3-1 Climate Data				
Month	Avg. Precipitation (in) <sup>(1)</sup>	Avg. Max Temp (°F) <sup>(1)</sup>	Avg. Min Temp (°F) <sup>(1)</sup>	Monthly Eto (in) <sup>(2)</sup>
January	1.60	57.8	35.8	1.94
February	1.51	63.6	39.2	2.75
March	1.21	69.2	41.8	4.41
April	0.55	76.0	45.9	6.32
May	0.25	84.9	52.5	8.08
June	0.04	92.7	59.2	9.58

**Table 3-1 Climate Data**

Month	Avg. Precipitation (in) <sup>(1)</sup>	Avg. Max Temp (°F) <sup>(1)</sup>	Avg. Min Temp (°F) <sup>(1)</sup>	Monthly Eto (in) <sup>(2)</sup>
July	0.01	99.4	65.3	9.93
August	0.02	97.8	63.2	8.95
September	0.19	92.7	58.6	6.89
October	0.31	81.8	49.7	4.81
November	0.72	67.6	40.6	2.61
December	1.20	58.2	35.7	1.72
<b>Annual Total/Average</b>	<b>7.61</b>	<b>78.5</b>	<b>49.0</b>	<b>67.99</b>
NOTE:				
<sup>(1)</sup> From Western Regional Climate Center Coalinga, CA.				
<sup>(2)</sup> From California Irrigation Management System, Coalinga, CA				

### 3.4. Service Area Population

*CWC Section 10631 (a)*

*Describe the service area of the supplier, including current and projected population . . . The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

The City of Coalinga has experienced steady population growth since 2010, and future projections anticipate further growth within the City. This steady increase in population is primarily a reflection of the regional growth pressures that are affecting the Central Valley as people living in more expensive regions look for affordable housing in the Central Valley. Anticipating increased demand from population growth and new enterprise are important aspects of the City's UWMP. This 2015 UWMP anticipates the effects of increased demand on water resources arising from sustained population growth.

According to the 2010 Census, population within the City was 13,380, which was up from 11,668 at the 2000 Census, and up from 8,212 at the 1990 Census. According to the California Department of Finance, the City served a total population of approximately 16,626 in 2015. The City's total population includes the urban population of the City, the population of the Pleasant Valley State Prison, and the population of the State Mental Hospital. Based on these population figures, the average annual growth rate of from 1990 to 2015 is approximately 2.86 percent. Table 3-2 contains the projected population for the next twenty-five years, in 5-year increments, assuming a 2.86 percent annual average growth rate through 2040.

Table 3-2 Population - Current and Projected (Standard Table 3-1)						
Population Served	2015	2020	2025	2030	2035	2040
	16,626	19,145	22,046	25,386	29,232	33,661



## CHAPTER 4 SYSTEM WATER USE

### 4.1. Introduction

This chapter provides a description and quantifies the City’s current water use and water use projections through the year 2040. The data provided in this Section allows the City to accurately analyze the use of the City’s water resources and conduct good resource planning. The future demand estimates allow the City to manage the water supply and appropriately plan their infrastructure investments. The terms “water use” and “water demand” will be used interchangeably.

### 4.2. Recycled versus Potable and Raw Water Demand

The City’s water supply is exclusively surface water, supplied from the United States Department of Interior, Bureau of Reclamation (Reclamation) via the Central Valley Project. The City currently does not use recycled water to meet any of their water demands. Currently, the City’s wastewater is not treated to tertiary effluent quality and there is no infrastructure in place to deliver recycled water for the irrigation of landscape areas such as school, parks, and along roadways.

Tables 4-2, 4-4, and 4-5 contain the City’s current and projected potable water demands.

### 4.3. Water Use by Sector

*CWC 10631(e)*

*(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:*

*(A) Single-family residential.*

*(B) Multifamily.*

*(C) Commercial.*

*(D) Industrial.*

*(E) Institutional and governmental.*

*(F) Landscape.*

*(G) Sales to other agencies.*

*(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.*

*(I) Agricultural.*

*(2) The water use projections shall be in the same five-year increments described in subdivision (a).*

This 2015 UWMP includes past, current, and projected water use in five-year increments. The City will determine the reliability of their projected water supply based upon that information. This 2015 UWMP also identifies the water use by sector. The City breaks down metered water deliveries into single family residential, multi-family residential, commercial, industrial, and landscape irrigation. Commercial water includes water used by retail establishments, office buildings, laundries, schools, prisons, hospital, dormitories, nursing homes, and hotels. The number of water service accounts and volume of water severed provides insight into the different customer's water use, which can be useful in defining effective water conservation measures. Tables 4-1 and 4-3 provide the City's actual and projected water demands.

<b>Table 4-1 Retail: Demands for Potable and Raw Water - Actual</b>			
<b>Use Type</b>	<b>2015 Actual</b>		
	<b>Additional Description</b>	<b>Level of Treatment When Delivered</b>	<b>Volume</b>
Single Family	3,143 Service Connections	Drinking Water	394
Multi-Family	104 Service Connections	Drinking Water	75
Commercial	345 Service Connections	Drinking Water	411
Industrial	10 Service Connections	Drinking Water	60
Landscape Irrigation	45 Service Connections	Drinking Water	80
Losses	Un-Accounted Water	Drinking Water	146
<b>Total</b>			<b>1,166</b>
NOTES: <sup>(1)</sup> Commercial includes retail establishments, office buildings, laundries, schools, prisons, hospital, dormitories, and nursing homes, and hotels. <sup>(2)</sup> For projection purposes, losses or unaccounted water represents the volume of water that is produced and distrusted, but are not metered or sold to customers.			

Table 4-2 lists the projected number of accounts by user type. The number of accounts were projected by first multiplying the total number of metered accounts for 2015 by the annual average growth rate of 2.86 percent, which is consistent with the population growth determined in Section 3.4 of this UWMP. For single family, multi-family, and commercial connections, the projected number of connections was then divided by a factor of 3, since there are typically 3 persons per connections. It has been assumed that the projected number of connections for industrial users and landscape irrigation will remain constant.

<b>Table 4-2 Projected Number of Total Connections by User Type</b>						
<b>Use Type</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Single Family	3,143	3,302	3,484	3,695	3,937	4,215
Multi-Family	104	109	115	122	130	140
Commercial	345	362	382	405	432	463
Industrial	10	10	10	10	10	10
Landscape Irrigation	45	45	45	45	45	45
<b>Total</b>	<b>3,647</b>	<b>3,828</b>	<b>4,037</b>	<b>4,277</b>	<b>4,554</b>	<b>4,873</b>

Table 4-3 lists the projected water demands through the year 2040. The projected water demands were obtained by multiplying the City’s annual average growth rate of 2.86 percent by each user’s 2015 annual water consumption.

<b>Table 4-3 Demands for Potable and Raw Water - Projected (Standard Table 4-2)</b>					
<b>Use Type</b>	<b>Projected Water Use</b>				
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Single Family	454	523	602	693	798
Multi-Family	86	99	114	131	151
Commercial	473	545	628	723	833
Industrial	69	79	91	105	121
Landscape	92	106	122	140	161
Losses	146	146	146	146	146
<b>Total</b>	<b>1,320</b>	<b>1,498</b>	<b>1,703</b>	<b>1,938</b>	<b>2,210</b>

Table 4-4 provides a summary of the City’s potable water demand projections. Recycled water is not included in the City’s potable water demand. The City has plans to use recycled water to offset non potable water demands in the future but the implementation of a recycled water system is beyond 2040.

<b>Table 4-4 Total Water Demands (Standard Table 4-3)</b>						
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Potable and Raw Water	1,166	1,320	1,498	1,703	1,938	2,210
Recycled Water Demand	0	0	0	0	0	0
<b>Total</b>	<b>1,166</b>	<b>1,320</b>	<b>1,498</b>	<b>1,703</b>	<b>1,938</b>	<b>2,210</b>

#### 4.4. Distribution System Losses

*CWC 10631(e)(1) and (2)*

*Quantify, to the extent records are available, past and current water use over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:(J) Distribution system water loss*

*CWC 10631 (e)(3)*

*(A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.*

*(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss*

*quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.*

Water distribution system losses is a crucial part of water demand management. Distribution system loss or unaccounted water is the volume of water that is produced and distributed but not sold or metered to customers. Leakage is usually the largest component of distribution loss. In addition to leakage, the following are other sources of water loss:

- Slow meters
- Failed meters
- Theft
- Fire Protection
- Unmetered construction water used for flushing pipelines and dust control
- Service leaks prior to meter connection flushing
- Unmetered water used for flushing dead ends within the system to maintain water quality

Table 4-5 contains the 12-month water loss audit over the past year.

Table 4-5 12 Month Water Loss Audit Reporting (Standardized Table 4-4)	
Reporting Period Start Date	Volume of Water Loss
01/2015	146

The unaccounted water was equal to approximately 13 percent of the total water produced in 2015. In the future, the City will actively pursue customer meter accuracy testing and repairs of the distribution system in order to reduce water losses

#### 4.5. Future Water Savings

*CWC 10631 (e)(4)*

*(A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.*

*(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections. (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.*

The water use projections are calculated using 2015 consumption data as the baseline. The 2015 consumption is considered to include water conservation measures that the City implemented due to drought conditions. Additional water savings will be realized in the future by reducing leaks in the system

and replacing old water fixtures. However, those future water savings have not been included in water use projections. The City adopted a Water Shortage Contingency Ordinance that amended the City's Municipal Code by adding a chapter on water conservation. It is still unclear how much savings the City's Shortage Contingency Plan will deliver in future years.

#### 4.6. Water Use for Lower Income Households

*CWC 10631.1(a)*

*The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

*California Health and Safety Code 50079.5 (a)*

*"Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families... In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually.*

Urban water suppliers are required to identify water demand required for lower income housing in its water use projections. State legislation (SB 1087 and Government Code §65589.7), effective January 1, 2006, specifies that local water agencies and sewer districts must grant priority for service hook-ups to projects that help meet the community's fair housing need. Coalinga's share of regional housing needs originates with the California Department of Housing and Community Development (HCD). HCD first estimates a statewide need for housing, which is broken down into regions, each of which then has an assigned share of estimated housing needs. The Fresno County Council of Governments (Fresno COG) is the local agency mandated by California Government Code §65554(a) to distribute the "Fair Share Allocation" of the regional housing need to each jurisdiction in Fresno County. The "Fair Share Allocation" of housing is a specific number of residential units, in different price ranges, assigned to each local jurisdiction, including the City of Coalinga.

The Fresno COG's 2016 Multi-Jurisdictional Housing Element estimates that a total of 41,470 housing units will be needed in the County through the end of year 2023. The City of Coalinga's share of those units is 589 or approximately 1.42 percent. The 2016 Multi-Jurisdictional Housing Element also estimates that approximately 45 percent of the total housing needs in the City of Coalinga are for low income households. The needs allocation is further classified as low income, very low income and extremely low income. The extremely low-income families require rental assistance and these units are assumed to be multi-family residential (MFR) units. The low income and very low income are assumed to be single-family residential (SFR) units.

Based on the projected low-income housing residential unit needs, Table 4-6 lists the projected number of housing units through 2040.

Table 4-6 Projected Number of Additional Low Income Housing Units							
Use Type	Income <sup>(1)</sup>	Fresno COG Allocation	2015-20	2020-25	2025-30	2030-35	2035-40
Extremely Low Income	<30%	12.7%	2	2	3	3	4
Very Low Income	31%-50%	12.7%	61	70	80	92	106
Low Income	51%-80%	19.5%	93	107	123	142	163
Moderate Income	81%-120%	20.9%	99	114	132	152	175
Above Moderate Income	>120%	34.1%	162	187	215	248	285
<b>Total</b>		<b>100.0%</b>	<b>417</b>	<b>481</b>	<b>553</b>	<b>637</b>	<b>733</b>
NOTES:							
<sup>(1)</sup> As a percentage of the County's Median Household Income							

The estimated volume of water needed to meet the new lower income housing units are shown in Table 4-7. The projected water needed for additional low income units was estimated by first dividing the gross volume of water delivered to either multi-family or single-family residents by the total number of service connections for each use type, and then multiplied by the projected number of additional housing units determined in Table 4-6.

Table 4-7 Projected Number of Additional Low-Income Housing Units					
Use Type	2015-20	2020-25	2025-30	2030-35	2035-40
Extremely Low Income	1	2	2	2	3
Very Low Income	8	9	10	12	13
Low Income	12	13	15	18	20
<b>Total</b>	<b>21</b>	<b>24</b>	<b>27</b>	<b>32</b>	<b>36</b>

The projected water demands for lower income housing are included in the projections of water demands shown in Tables 4-3 and 4-4. Demand for existing lower income housing is being met and is included in the volumes shown in Tables 4-3 and 4-4.

Table 4-8 Inclusion in Water Use Projections (Standard Table 4-5)	
Are Future Water Savings Included in Projections?	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	Not Applicable
Are Lower Income Residential Demands Included In Projections?	Yes

## 4.7. Climate Change

DWR Guidelines recommend that the 2015 UWMP include a discussion of potential climate change impacts on projected demand. There is mounting scientific evidence that global climate conditions are changing and will continue to change as a result of the continued build-up of greenhouse gases (GHGs) in the Earth's atmosphere. Changes in climate can affect municipal water supplies through modifications in the timing, amount, and form of precipitation, as well as water demands and the quality of surface runoff.

These changes can affect all elements of water supply systems, from watersheds to reservoirs, conveyance systems, and treatment plants.

Indications of climate change have been observed over the last several decades throughout California. Statewide average temperatures have increased by about 1.7°F from 1895 to 2011, with the greatest warming in the Sierra Nevada. Although the State’s weather has followed the expected pattern of a largely Mediterranean climate throughout the past century, no consistent trend in the overall amount of precipitation has been detected, except that a larger proportion of total precipitation is falling as rain instead of snow.

The correlation between temperature and water demand is well documented and understood. A large percentage of the City’s water demand is driven by outdoor irrigation. Higher temperatures will increase evapotranspiration rates and increase demands. Higher temperatures will also extend the duration of the outdoor landscaping growing season increasing the maximum day demands on the spring and fall seasons.

It is evident that climate change adds new uncertainties to the challenges of planning. Changes in weather could significantly affect water supply planning. Since climatic pressures could potentially affect supply reliability, continual attention to this issue will be necessary in the future.

## CHAPTER 5 BASELINES AND TARGETS

### 5.1. Introduction

With the adoption of the Water Conservation Act of 2009, also known as the SB X7-7, (see Appendix B), the State is required to set a goal of reducing urban water use by 20 percent by the year 2020. Each retail urban water supplier must determine baseline water use during their baseline period and also target water use for the years 2015 and 2020 in order to help the State achieve the 20 percent reduction.

For the 2015 UWMP, water agencies must demonstrate compliance with their established water use target for the year 2015. This will also demonstrate whether the agency is currently on track to achieve its 2020 target. Compliance is verified by DWR's review of the SB X7-7 Verification Form included in Appendix E of this 2015 UWMP.

### 5.2. Updating Calculations from 2010 UWMP

*CWC 10608.20 (g)*

*An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).*

*Methodologies DWR 2010, Methodology 2 Service Area Population*

*Page 27 - Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates.*

The City of Coalinga is considered an Urban Water Supplier and prepared a 2010 UWMP in June 2015. This 2015 UWMP contains updated calculations about water use targets and population estimates.

#### 5.2.1. Target Method

*CWC 10608.20 (b)*

*An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):*

*(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.*

*(2) The per capita daily water use that is estimated using the sum of the following performance standards:*



*(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.*

*(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.*

*(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.*

*(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.*

*(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:*

*(A) Consider climatic differences within the state.*

*(B) Consider population density differences within the state.*

*(C) Provide flexibility to communities and regions in meeting the targets.*

*(D) Consider different levels of per capita water use according to plant water needs in different regions.*

*(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.*

*(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.*

Target Method 1 has been selected by the City as the preferred compliance method to determine water use targets. Target Method 1 is calculated as a 20% reduction of the baseline daily water use.

### 5.2.2. SBX7-7 Verification Form

To satisfy the provisions of SB X7-7, the City must establish a per capita water use target for the year 2020 as well as an interim target. DWR has provided guidelines for determining these targets in its Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use and in the 2015 UWMP Guidebook. The City's baseline water use is based on the City's historic water use and is determined by procedures identified in the following sections.

All retail agencies, whether updating their baselines and targets from 2010, or calculating these for the first time in 2015 UWMPs, are required to submit the standardized tables in the SB X7-7 Verification Form with their 2015 UWMPs. These standardized tables were not available in 2005 or 2010 and are required to demonstrate compliance with the Water Conservation Act of 2009.

The tables in the SB X7-7 Verification Form are distinguished from the other standardized tables in this 2015 UWMP by their name, which will state "SB X7-7", followed by the table number.

### 5.3. Baseline Periods

CWC 10608.20

*(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . the baseline daily per capita water use...along with the bases for determining those estimates, including references to supporting data.*

*(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).*

The City is responsible for determining both a 10 or 15-year baseline and a 5-year baseline in accordance with DWR's guidelines.

#### 5.3.1. Determination of the 10-15 Year Baseline Period (Baseline)

CWC 10608.12

*(b) "Base daily per capita water use" means any of the following:*

*(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

*(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a*

*continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

The City did not meet at least 10% of its 2008 measured retail water demand through recycled water. Therefore, the baseline must be calculated over a 10-year period. This 2015 UWMP uses the period between January 1<sup>st</sup>, 2001 and December 31<sup>st</sup>, 2010 as the baseline period.

### **5.3.2. Determination of the 5 Year Baseline (Target Confirmation)**

*CWC 10608.12 (b)*

*(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010*

The UWMPA requires urban water suppliers to calculate water use, in gallons per capita per day (GPCD), for a 5-year baseline period. The 5-year baseline period is used to confirm that the selected 2020 target meets the minimum water use reduction requirements in accordance with CWC 10608.22. The selected 5-year Baseline Period for the 2015 UWMP is January 1<sup>st</sup>, 2006 through December 31<sup>st</sup>, 2010.

### **5.4. Service Area Population**

*CWC 10608.20*

*(e) An urban retail water supplier shall include in its urban water management plan...the baseline daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*

*(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.*

*CWC 10644 (a)(2)*

*The plan... shall include any standardized forms, tables, or displays specified by the department.*

To obtain an accurate estimate of the annual per capita consumption, the 2015 UWMP must estimate population of the area served. The population estimates must include each baseline year in both baseline periods and for the 2015 compliance year. The methods available for estimating the City's population are provided in Methodology 2 of the Methodologies document. The following is a description of the methodology used in this 2015 UWMP to estimate the City's population.

#### 5.4.1. Population Methodology

Agencies whose service area boundaries correspond by 95 percent or more with the boundaries of a city during the baseline period and the compliance year 2015 will be able to obtain population estimates from tables prepared by the Department of Finance (DOF). The DOF population estimates includes both the urban population of the City of Coalinga and the population of the Pleasant Valley State Prison and State Hospital.

The City’s service area boundaries correspond with the boundaries of the City during the baseline and compliance years. Department of Finance population tables have been used to estimate the service area population. The service area population for each of the baseline years is shown in Table 5-1.

Table 5-1 Service Area Population (SB X7-7 Table 3)		
Year		Population
<b>10 to 15 Year Baseline Population</b>		
Year 1	2001	15,833
Year 2	2002	15,830
Year 3	2003	15,765
Year 4	2004	16,335
Year 5	2005	16,566
Year 6	2006	16,662
Year 7	2007	17,330
Year 8	2008	18,310
Year 9	2009	18,295
Year 10	2010	18,087
<b>5 Year Baseline Population</b>		
Year 1	2006	16,662
Year 2	2007	17,330
Year 3	2008	18,310
Year 4	2009	18,295
Year 5	2010	18,087
<b>2015 Compliance Year Population</b>		
<b>2015</b>		16,626
NOTES: Population data is taken from the California Department of Finance records E-8.		

#### 5.5. Gross Water Use

CWC 10608.12 (g)

*“Gross Water Use” means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:*

- (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier
- (2) The net volume of water that the urban retail water supplier places into long term storage
- (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier
- (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.
- California Code of Regulations Title 23 Division 2 Chapter 5.1 Article*
- Section 596 (a) An urban retail water supplier that has a substantial percentage of industrial water use in its service area is eligible to exclude the process water use of existing industrial water customers from the calculation of its gross water use to avoid a disproportionate burden on another customer sector*

Gross water use is a measure of water that enters the City's distribution system over a 12-month period with certain allowable exclusions. These exclusions are:

- Recycled water delivered within the service area
- Indirect recycled water
- Water placed into long term storage
- Water conveyed to another urban supplier
- Water delivered for agricultural use
- Process water

Gross water use is accurately measured at the point that water enters the distribution system. Measuring at this point ensures that all the water, including losses and other non-revenue water (i.e., firefighting, line flushing, etc...) is accounted for. Gross water use is calculated for each baseline year and the 2015 Compliance Year. Gross Water Use is shown in Table 5-2.

Table 5-2 Annual Gross Water Use (SB X7-7 Table 4)								
Baseline Year		Volume Into Distribution System	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage	Indirect Recycled Water	Water Delivered for Agricultural Use	Process Water	
10 to 15 Year Baseline - Gross Water Use								
Year 1	2001	1,518	-	-	-	-	-	1,518
Year 2	2002	1,757	-	-	-	-	-	1,757
Year 3	2003	2,364	-	-	-	-	-	2,364
Year 4	2004	2,474	-	-	-	-	-	2,474

**Table 5-2 Annual Gross Water Use (SB X7-7 Table 4)**

Baseline Year		Volume Into Distribution System	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage	Indirect Recycled Water	Water Delivered for Agricultural Use	Process Water	
Year 5	2005	2,248	-	-	-	-	-	2,248
Year 6	2006	2,439	-	-	-	-	-	2,439
Year 7	2007	2,544	-	-	-	-	-	2,544
Year 8	2008	2,112	-	-	-	-	-	2,112
Year 9	2009	1,722	-	-	-	-	-	1,722
Year 10	2010	1,804	-	-	-	-	-	1,804
<b>10 – 15-Year Baseline Average Gross Water Use</b>								<b>2,098</b>
<b>5 Year Baseline - Gross Water Use</b>								
Year 1	2006	2,439	-	-	-	-	-	2,439
Year 2	2007	2,544	-	-	-	-	-	2,544
Year 3	2008	2,112	-	-	-	-	-	2,112
Year 4	2009	1,722	-	-	-	-	-	1,722
Year 5	2010	1,804	-	-	-	-	-	1,804
<b>5-Year Baseline Average Gross Water Use</b>								<b>2,124</b>
<b>2015 Compliance Year - Gross Water Use</b>								
<b>2015</b>		1,116	-	-	-	-	-	<b>1,116</b>

## 5.6. Baseline Daily per Capita Water Use

The final step in baseline calculations is to determine the water used per person per day GPCD in each of the baseline years. This is done for each baseline year by dividing the gross water use by the service area population. Each baseline year is shown in Table 5-3.

Table 5-3 Gallons Per Capita Per Day GPCD (SB X7-7 Table 5)				
Baseline Year		Service Area Population	Annual Gross Water Use	Daily Per Capita Water Use (GPCD)
<b>10 to 15 Year Baseline GPCD</b>				
Year 1	2001	15,833	1,518	263
Year 2	2002	15,830	1,757	304
Year 3	2003	15,765	2,364	411
Year 4	2004	16,335	2,474	415
Year 5	2005	16,566	2,248	372
Year 6	2006	16,662	2,439	401
Year 7	2007	17,330	2,544	402

Table 5-3 Gallons Per Capita Per Day GPCD (SB X7-7 Table 5)				
Baseline Year		Service Area Population	Annual Gross Water Use	Daily Per Capita Water Use (GPCD)
Year 8	2008	18,310	2,112	316
Year 9	2009	18,295	1,722	258
Year 10	2010	18,087	1,804	273
10-15 Year Average Baseline GPCD				<b>341</b>
<b>5 Year Baseline GPCD</b>				
Year 1	2006	16,662	2,439	401
Year 2	2007	17,330	2,544	402
Year 3	2008	18,310	2,112	316
Year 4	2009	18,295	1,722	258
Year 5	2010	18,087	1,804	273
5 Year Average Baseline GPCD				<b>330</b>
<b>2015 Compliance Year GPCD</b>				
<b>2015</b>		16,626	1,116	<b>184</b>

Table 5-4 provides a summary of the calculated baselines and 2015 consumption based on the data provided in Table 5-3.

Table 5-4 Summary of Baselines and Current Consumption (SB X7-7 Table 6)	
10-15 Year Baseline GPCD	341
5 Year Baseline GPCD	330
2015 Compliance Year GPCD	184

## 5.7. 2015 and 2020 Targets

*CWC 10608.20(e)*

*An urban retail water supplier shall include in its urban water management plan due in 2010. . . urban water use target, interim urban water use target, along with the bases for determining those estimates, including references to supporting data (10608.20(e)).*

*CWC 10608.20*

*(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan...*

The UWMPA requires urban water suppliers to determine the 2020 Urban Water Use Target. Four target methods have been developed and identify the specific steps water suppliers shall follow to establish these targets. These methods are as follows:

- Target Method 1: 80% of 10-to 15-Year Baseline
- Target Method 2: Performance Standards
- Target Method 3: 95% of Hydrologic Regional Target
- Target Method 4: Savings by Water Sector

Once the 2015 plan is submitted, the Target Method may not be changed in any amendments to the 2015 Plan or in the 2020 Plan.

### 5.7.1. Target Method

The City's 2015 UWMP will be utilizing Target Method 1. The 2020 Urban Water Use Target is calculated as 80 percent of the base daily per capita water use. This 20 percent reduction of the 10 Year Baseline was determined to be 176 GPCD as shown Table 5-5.

Table 5-5 Target Method 1 (SB X7-7 Table 7-A)	
10-15 Year Baseline GPCD	2020 Target GPCD
341	273

### 5.7.2. Target Confirmation – Use of 5 Year Baseline

*CWC 10608.22*

*Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.*

The 2020 water use target must reduce the City's 2020 water use by a minimum of 5% from the 5-year baseline. Table 5-6 shows that the Confirmed 2020 water use target is below that minimum at 273 GPCD.

Table 5-6 Confirm Minimum Reduction for 2020 Target (SB X7-7 Table 7-F)			
5 Year Baseline GPCD From SB X7-7 Table 5	Maximum 2020 Target <sup>(1)</sup>	Calculated 2020 Target <sup>(2)</sup>	Confirmed 2020 Target
330	314	273	273
NOTES: <sup>(1)</sup> Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD. <sup>(2)</sup> The 2020 Target is calculated based on the selected Target Method, see SB X7-7-A.			



### 5.7.3. 2015 Interim Urban Water Use Target

The 2015 Interim Target is the value halfway between the 10-year Baseline and the Confirmed 2020 Target. The City's 2015 Interim Target of 307 GPCD is shown in Table 5-7 below.

Table 5-7 2015 Interim Target GPCD (SB X7-7 Table 8)		
Confirmed 2020 Target	10-15 year Baseline GPCD	2015 Interim Target GPCD
273	341	307

### 5.7.4. Baselines and Targets Summary

A summary of baselines and targets is shown in Table 5-8 below.

Table 5-8 Baselines and Targets Summary (Standard Table 5-1)					
Baseline Period	Start Year	End Year	Average Baseline GPCD	2015 Interim Target	Confirmed 2020 Target
10-15 Year	2001	2010	341	307	273
5 Year	2006	2010	330		
NOTES:					
<sup>(1)</sup> All values are in Gallons per Capita per Day GPCD.					

## 5.8. 2015 Compliance Daily per Capita Water Use

*CWC 10608.12 (e)*

*"Compliance daily per-capita water use" means the gross water use during the final year of the reporting period...*

*CWC 10608.24 (a)*

*Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.*

*CWC 10608.20(e)*

*An urban retail water supplier shall include in its urban water management plan due in 2010...compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*

Water suppliers must calculate their actual 2015 water use for the calendar year to determine whether they have met their per capita 2015 and assess their progress towards meeting their 2020 target water use.

### 5.8.1. Meeting the 2015 Target

In 2015 the City's actual daily per capita water use was determined to be 184 GPCD, which is less than the 2015 Interim Target of 307 GPCD and Confirmed 2020 Target of 273 GPCD. Therefore, the City has met their 2015 per capita water use and is already on track to meet the Confirmed 2020 Target. This confirmation can be seen in Table 5-9 in the following section.

### 5.8.2. Adjustments to Gross Water Use

*CWC 10608.24 (d)*

*When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:*

*Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.*

*Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.*

*Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.*

*If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.*

*Methodology Document, Methodology 4*

*This section discusses adjustments to compliance-year because of changes in distribution area caused by mergers, annexation, and other scenarios that occur between the baseline and compliance years.*

For this 2015 UWMP there are several allowable adjustments that can be made to a City's gross water use. These adjustments would account for weather, economic development, and substantial changes to the City's water use. As shown in Table 5-9, the City did not elect to adjust their gross water use. In addition, the City's per capita water use is in compliance.

**Table 5-9 2015 Compliance (Standard Table 5-2)**

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments (in GPCD)					2015 GPCD	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Economic Adjustment	Weather Normalization	Total Adjustments	Adjusted 2015		
184	307	-	-	-	-	184	184	YES

## CHAPTER 6 SYSTEM SUPPLIES

### 6.1. Purchased Water

The City of Coalinga receives its potable water supply through a contract with the United States Bureau of Reclamation (Reclamation). Raw water is conveyed to the City's Water Treatment Plant (WTP) from the Coalinga Canal, which originates at the California Aqueduct. The City's interim water service contract, in effect through February 28, 2021, requires the Reclamation to furnish the City of Coalinga with up to 10,000 acre-feet of raw water per year. The Reclamation and the City are currently in the process of negotiating a long-term contract through Section 4011 of the Water Infrastructure for Improvements to the Nation (WIIN) Act, which is expected to be completed by 2021.

### 6.2. Groundwater

The City of Coalinga does not currently use groundwater as part of its water supply as groundwater in the area is unsuitable for drinking without treatment or blending. Due to poor groundwater quality, potable water utilized by the City consists of surface water from the California Aqueduct that is treated at the City's surface WTP.

#### 6.2.1. Groundwater Quality

The City's groundwater is of poor quality due to the high concentrations of sodium, sulfates and total dissolved solids (TDS). This condition occurs at depths between 500 and 1,500 feet; therefore, groundwater is not considered a viable source of potable water within the Coalinga planning area. Even for crop irrigation, groundwater is considered only of "marginal acceptability" because the groundwater tends to increase the concentrations of salts in the soil, further decreasing its agricultural suitability.

#### 6.2.2. Basin Description

*CWC 10631 (b)*

*If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:*

*(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.*

The City of Coalinga is located in the Pleasant Valley Subbasin in the Tulare Lake hydrologic region of the San Joaquin Groundwater Basin. The Pleasant Valley Subbasin covers approximately 227 square miles. DWR Bulletin 118 – Update 2006, "California's Groundwater" contains a detailed description of the Pleasant Valley Subbasin and its characteristics and conditions. A copy of this description is included in Appendix F.

As part of the San Joaquin Valley Groundwater Basin, the Pleasant Valley Subbasin (Subbasin) lies along the west side of the San Joaquin Valley, north of the Kings-Kern County line, and straddles the Fresno-Kings County line. The Subbasin occupies approximately 146,000 acres, and its perimeter is surrounded by tertiary continental and marine sediments of the Coastal Ranges and the west flank of the Kettleman

Hills. The Subbasin is bordered on the west by the Costal Ranges, on the south by the San Emigdio and Tehachapi Mountains, and on the north by the Sacramento-San Joaquin Delta and Sacramento Valley. The eastern boundary of the Subbasin is the alluvium-granite rock of the Sierra Nevada. The eastern boundary also borders the Westside and Tulare Lake Subbasins.

According to DWR Bulletin 118, the total storage capacity of the Subbasin is estimated to be approximately 14,100,000 acre-feet. The estimated TDS of groundwater within the Subbasin ranges from 1,000 to 3,000 milligrams per liter (mg/L), with an average of 1,500 mg/L. Constituents in the groundwater include calcium, magnesium, sodium, bicarbonates, chlorides, sulfates, and boron. The high TDS concentrations limit the usability of groundwater in the Subbasin for most uses.

### 6.2.3. Groundwater Management

*CWC 10631 (b)*

*If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:*

*A copy of any groundwater management plan adopted by the urban water supplier... or any other specific authorization for groundwater management.*

*...For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.*

The City of Coalinga does not currently pump groundwater; therefore, a groundwater management plan is not required.

### 6.3. Surface Water

Due to the poor groundwater quality in the area, all potable water utilized by the City of Coalinga is imported through the federal Central Valley Project (CVP) – U.S. Bureau of Reclamation (Reclamation). On October 28, 1968, the City entered into a 40-year contract with the Reclamation for up to 10,000 acre-feet of CVP water on an annual basis. This contract expired on December 31, 2008 and has been succeeded by a series of interim renewal contracts pending completion of site-specific environmental analysis for the long-term contract renewal. The most recent was the sixth interim renewal contract (Contract No. 14-06-200-4173A-IR6) was issued March 1, 2019 and remains in effect until February 28, 2021.

Raw water for the City flows from the Sacramento-San Joaquin Delta to the south into either the Delta-Mendota Canal or the CVP California Aqueduct, which discharges in the O'Neil Forebay. From the O'Neil Forebay, water continues to flow south into the California Aqueduct to the point of origination of the Coalinga Canal, approximately 15 miles northeast of the City where Highway 145 crosses over the California Aqueduct. After leaving the California Aqueduct, water is carried in the Coalinga Canal approximately 12 miles south to the City of Coalinga WTP intake. A raw water pump station then lifts the water from the Coalinga Canal to the City's conventional surface WTP.

### **6.3.1. Existing Surface Water Treatment Plant**

The City's surface WTP originally came online in April 1972 with an average daily flow capacity of 8 million gallons per day (MGD) and maximum daily flow capacity of 12 MGD. In anticipation of the increased demands resulting from the construction of the Pleasant Valley State Prison, the capacity of the WTP was increased to receive an average daily flow of 12 MGD and a maximum daily flow of 16 MGD. The Plant provides convention surface water treatment, with processes that include chemical pretreatment, chlorine disinfection, corrosion control, filtration, flocculation, and sedimentation. As a secondary disinfection, chloramination is used to maintain chlorine residual in the distribution system while reducing further production of disinfection byproducts. Treated water is pumped by a filtered-water pump station into a 27-inch diameter pipeline in Palmer Avenue.

### **6.3.2. Filtered Water Pump Station**

The filtered water pump station includes two 450 horsepower (HP), 2,300 gallons per minute (gpm) and 2,400 gpm and three 700 HP, 3,600 gpm vertical turbine pumps. When in optimal condition, the pump station has the operational ability to pump the treatment plant capacity of 16.4 MGD (11,400 gpm) with one of the 450 HP pumps out of service. The booster pump station lifts treated water in a series of 24, 27 and 30-inch transmission mains leading to City. Treated water is pumped into five storage reservoirs with an estimated combined storage capacity of 16 MG. These storage reservoirs supply water to the City of Coalinga, surrounding commercial facilities, oil fields, the Pleasant Valley State Prison, and the Coalinga State Hospital.

### **6.3.3. Storage Reservoirs**

The City's existing storage reservoirs all consist of steel tanks resting on reinforced concrete ring wall foundations. The following is a description of each of the City's treated water storage reservoirs:

- Palmer Avenue Reservoir – This reservoir is located on the south side of Palmer Avenue and has a capacity of 2.8 MG. This reservoir receives pumped treated water from the WTP.
- Calaveras Avenue Reservoir – This reservoir is located on the east side of Calaveras Avenue and has a capacity of 5.0 MG. Water flows from the WTP to the Calaveras Reservoir and then to the Pleasant Valley State Prison.
- Derrick Avenue Reservoir – This reservoir is located west of the City, on the east side of Derrick Avenue. This reservoir has a capacity of 7.6 MG. Water from the Palmer Reservoir flows to the Derrick Reservoir and then into the City.
- Oil King Reservoir – This reservoir is located west of Highway 33/198, approximately three miles north of Palmer Avenue. The reservoir has a capacity of 0.5 MG and exclusively serves the City's oil company customers.
- Northwest Reservoir – This reservoir is located east of Derrick Avenue, approximately three miles north of Gale Avenue. This reservoir has a capacity of 0.2 MG. Like the Oil King Reservoir, this reservoir is also used exclusively for the City's oil company customers.

Since the Oil King and Northwest reservoirs' sole function is to provide water to oil companies, they are excluded from the evaluation of the City's available storage. The existing combined storage capacity of the Palmer, Derrick and Calaveras reservoirs is 15.4 million gallons (MG).

#### **6.3.4. Booster Pump Station**

The City's water system includes two booster pumping stations. However, the booster pumping stations do not function as a part of the City's main service area and serve the oil company customers exclusively. The Oil King booster pumping station consists of two 200-HP, 1,440 gpm booster pumps that elevate the Palmer Avenue Reservoir water to the Oil King Reservoir. The Derrick Avenue booster station consists of two 75-HP, 556 gpm booster pumps to elevate water to the Northwest Reservoir.

#### **6.3.5. Water Distribution System**

As stated above, after water flows through the City's WTP, treated water is pumped by a filtered-water pump station into a 27-inch diameter pipeline on Palmer Avenue. Approximately two miles west of the WTP, the flow tees at Calaveras Avenue. Water flowing west continues for another mile and a half to the Palmer Avenue Reservoir. Water going to the Pleasant Valley State Prison travels south in the 12-inch Calaveras Avenue pipeline to the Calaveras Avenue Reservoir. After flowing through the Calaveras Reservoir, it continues south along Calaveras Avenue another 3.5 miles to Jayne Avenue and then east to the prison. Water can potentially travel from the Calaveras Reservoir westerly into the City; however, this seldom occurs due to the hydraulic conditions.

Water leaving the Palmer Reservoir flows through approximately eight miles of 24 and 27-inch transmission mains to the Derrick Avenue Reservoir. Water travels primarily from the Derrick Avenue Reservoir through 18, 24, and 30-inch transmission mains into the City's water distribution system. The distribution system consists of a network of water mains ranging in size from 4 to 14 inches in diameter. The system can supply peak hour needs without excessive losses and can deliver fire flows to main lines.

### **6.4. Stormwater**

The City's stormwater collection system consists of several independent networks of storm drain inlets and pipes that either discharge into four permanent storm drain basins or the Warthan or Los Gatos Creeks. The City's storm drainage system operates as a gravity flow system and does not require the use of pump stations or lift stations. The existing storm drain system consists of pipes up to 48-inches in diameter and twelve drainage zones. Several portions of the storm drain system are severely undersized, and the system relies on aboveground surface flow through street curbs and gutters as a means of stormwater conveyance.

### **6.5. Wastewater and Recycled Water**

#### **6.5.1. Recycled Water Coordination**

CWC 10633

*The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.*

The City of Coalinga also owns and operates a citywide wastewater collection and treatment system. The City does not currently recycle effluent discharged from their wastewater treatment facilities; however, the City will coordinate any future recycled water plans with local water, wastewater, groundwater, and planning agencies within and near the City's service area.

### 6.5.2. Wastewater Collection, Treatment, and Disposal

**CWC 10633 (a)**

*(Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*

**CWC 10633 (b)**

*(Describe) the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.*

The City of Coalinga collects and treats wastewater generated from residential and commercial; there are currently no significant industrial users that discharge into the sewer collection system. The City's existing sewer collection system is comprised of a network of over 42 miles of sewer pipelines with sizes ranging from six to 24-inches in diameter. The system also includes four sewer lift stations located at various locations within the City and their associated force mains. The sewer lift stations raise wastewater flows to higher elevation in order to continue gravity flow at reasonable slopes and depths.

According to the City's General Plan, the backbone of the sewer collection system consists of a series of sewer truck lines and sewers interceptor. The sewer inceptors typically include larger pipelines, approximately 21-inches or larger, while the sewer trunk lines typically range from 12 to 18-inches. The sewer truck lines and sewer interceptor's function to convey wastewater collected in the sewer system to the City's wastewater treatment plant (WWTP).

The City owns and operates the WWTP under California Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDRs) Order No. 94-184. The WWTP treats and disposes municipal wastewater generated by residences and businesses within the City. The WWTP is located at the confluence of Los Gatos Creek and Warthan Creek, approximately one mile east of the City. The treatment process at the City's WWTP consists of screening, primary clarification, and secondary treatment (aerated facultative lagoons followed by stabilization lagoons). Treated effluent quality is undisinfected secondary effluent as described in Section 30301.900 of Title 22 of the California Code of Regulations (CCR). Table 6-1 provides a total volume of wastewater collected within the service area in 2015.

**Table 6-1 Wastewater Collected Within Service Area in 2015 (Standard Table 6-2)**

<input type="checkbox"/>	There is no wastewater collection system. The supplier will not complete the table below.
100%	Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>
100%	Percentage of 2015 service area population covered by wastewater collection system



**Table 6-1 Wastewater Collected Within Service Area in 2015 (Standard Table 6-2)**

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party?
City of Coalinga	Metered	307	City of Coalinga	City of Coalinga	Yes	No
<b>Total Wastewater Collected from Service Area in 2015:</b>		<b>307</b>				

The City's WWTP has undergone two major modifications and additions over the last 40 years. According to WDR Order No. 76-180, the WWTP originally consisted of a primary clarifier followed by three oxidation ponds in series. Final disposal consisted of irrigating land controlled by the City and West Hills Community College for agricultural reclamation. At that time, the WWTP's treatment capacity was 0.6 MGD.

In 1980 the City submitted a Report of Waste Discharge for the expansion of the existing treatment capacity from 0.6 MGD to 0.93 MGD. The modifications consisted of influent screening followed by aerated facultative lagoons and stabilization ponds. Final effluent disposal was consistent with previous practices on City-owned land and West Hills College grounds. These modifications and additions were implemented in 1982. WDR Order No. 80-064 was adopted on May 26, 1980.

In 1991, the City submitted a Report of Waste Discharge in support of a change in operation and an increase in quantity of discharge from its municipal WWTP. The treatment capacity was increased from 0.93 MGD to the current 1.34 MGD. The City completed the rehabilitation of the primary clarifier and aerobic digester, which were removed from service during the previous plant modification. The existing WWTP includes a bar screen, a primary clarifier, an aerobic sludge digester, sludge drying beds, two aerated facultative lagoons each with a surface area of three acres, and three stabilization ponds having a total surface area of 11 acres. Undisinfected secondary treated effluent is pumped from one of the stabilization ponds to adjacent land for percolation.

Table 6-2 provides a total volume of wastewater treated, discharged and recycled within the City.

**Table 6-2 Wastewater Treatment and Discharge Within Service Area in 2015 (Standard Table 6-3)**

<input type="checkbox"/>	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.									
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number <i>(optional)</i>	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
City of Coalinga	City of Coalinga	Domestic WWTP		Percolation & Land Disposal	No	Secondary, Undisinfected	307	307	0	0
Total							307	307	0	0

### 6.5.3. Recycled Water System

*CWC 10633(c)*

*(Describe) the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*

The City's WWTP does not treat any wastewater to disinfected tertiary water standards to allow it to be used as a component of its water supply. Prior to 2003, the City relied on the nearby West Hills Community College Farm (College) for the disposal of its treated wastewater effluent. The College, either on their own land or on land owned by the City, was responsible for the City's wastewater disposal operations. However, in 2003, the College announced its plans to relocate their facility and develop the land where effluent was being disposed of. Without the College the City did not have an effluent disposal method and began investigating alternative disposal methods.

While investigating disposal alternatives, the City found a landowner adjacent to the WWTP site who was interested in accepting the City's treated effluent. HCM Farms owned and operated about 448 acres of agricultural land adjacent to the WWTP and used the treated effluent to irrigate nonhuman consumption crops such as cotton, alfalfa, sudan grass, oat hay, and pasture. The City entered into an agreement with HCM Farms until 2010 when it was sold to Mouren Farms. Mouren Farms continued using recycled water from the City's WWTP until March 31, 2014.

Currently, treated effluent is pumped from one of the stabilization ponds to adjacent land, where percolates into the soil and is used to recharge the groundwater table. By way of this process, the majority of the treated domestic wastewater is recycled as groundwater recharge. Table 6-3 shows the current and projected recycled water uses through 2040 but is not applicable to the City of Coalinga. Although not recognized as a beneficial reuse, percolation provides additional groundwater recharge.

### 6.5.4. Recycled Water Beneficial Uses

*CWC 10633(d)*

*(Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.*

*CWC 10633(e)*

*(Describe) the projected use of recycled water within the supplier's service area at the end of 5, 10, 15 and 20 years...*

As previously stated, the City's WWTP produces undisinfected secondary effluent, which cannot be used as a component of the City's water supply and is approved only for the irrigation of non-potable crops. A

majority of the City’s effluent is discharged to land adjacent to the WWTP where it either evaporates or percolates. The City plans to implement a recycled water system or use recycled water to offset non potable water demands in the City. However, the implementation of a recycled water program is beyond the planning horizon of this document. Therefore, Table 6-3 shows no methods to encourage recycled water use in the future.

**Table 6-3 Current and Projected Recycled Water Direct Beneficial Uses Within Service Area (Standardized Table 6-4)**

<input checked="" type="checkbox"/>	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.							
Name of Agency Producing (Treating) the Recycled Water:			City of Coalinga					
Name of Agency Operating the Recycled Water Distribution System:			City of Coalinga					
Supplemental Water Added in 2015			0					
Source of 2015 Supplemental Water								
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)								
Golf course irrigation								
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other (Provide General Description)								
<b>Total:</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

#### 6.5.4.1. Planned Versus Actual Use of Recycled Water

*CWC 10633(e)*

*(Describe) the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.*

The City is exploring alternatives to expand water recycling; however, all of these alternatives would require tertiary treatment. At this time, the City's plan to use recycled water is uncertain and beyond the planning horizon of this document. The City will continue investigating opportunities and the potential for implementing a recycled water system and the findings of those investigations will be included in subsequent UWMPs.

The City's 2010 UWMP did not contain recycled water projections over the planning horizon, and Table 6-4 reflects both the current non-use and 2010 projected no-use of recycled water by use type.

Table 6-4 2005 UWMP Recycled Water Use Projection Compared to 2015 Actual (Standard Table 6-5)			
<input checked="" type="checkbox"/>	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type		2005 Projection for 2015	2015 Actual Use
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	Required for this use		
<b>Total</b>		<b>0</b>	<b>0</b>

### 6.5.5. Actions to Encourage and Optimize Future Recycled Water Use

*CWC 10633(f)*

*(Describe the) actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre- feet of recycled water used per year.*

*CWC 10633(g)*

*(Provide a) plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.*

As previously stated in the above sections, the City's water recycling options have been determined to be infeasible or too expensive. Therefore, the City is not planning to change recycled water use in the near future. Given the current usage of treated wastewater for recharge purposes, there is no hydrological benefits to increasing such recycling use. Since recycled water options have been determined to be infeasible at this time, Table 6-5 shows no methods to expand the City's recycled water use.

**Table 6-5 Methods to Expand Future Recycled Water Use (Standard Table 6-6)**

<input checked="" type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use

### 6.6. Desalinated Water Opportunities

*CWC 10631(i)*

*Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.*

The City of Coalinga lies inland and is not located in a coastal area; therefore, desalination of seawater is not practical. In addition, because the groundwater below the City is not brackish, there are no plans to develop brackish groundwater desalination projects. As a result, the City does not intend to pursue desalination to augment water supplies at this time.

## 6.7. Exchanges or Transfers

*CWC 10631(d).*

*Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.*

As previously stated, all potable water utilized by the City is imported through the federal CVP through a water service contacted with the Reclamation. In 1968, the City entered into a 40-year contract with the Reclamation for up to 10,000 acre-feet of CVP water on an annual basis. This original contract expired on December 31, 2008 and has been succeeded by a series of interim renewal contracts pending completion of site-specific environmental analysis for the long-term contract renewal. The most recent was the sixth interim renewal contract (Contract No. 14-06-200-4173A-IR6), was issued on March 1, 2019 and remains in effect until February 28, 2021.

The City has explored dry year water transfers with other agencies locally and statewide. It is estimated that up to 3,000 acre-feet of additional water from other customers within the San Luis Unit could be purchased by the City as emergency water supply in critically dry years. In critically dry years, the most likely source of additional water would be from agricultural customers that would sell their water allocation to the City and fallow their lands in order to make their allocated water available for transfer. However, this could potentially have a negative economic impact on the individual growers and the region.

It is also possible that the City could, as an emergency measure, drill sufficient new groundwater wells to provide an estimated additional 2,000 acre-feet of emergency water to meet health and safety needs in critically dry years. As previously stated, the groundwater under Coalinga is generally unsuitable for drinking due to its high total dissolved solids concentration but could be suitable if blended with the treated surface water to meet health and safety needs in critically dry years.

## 6.8. Future Water Projects

*CWC 10631(h)*

*...The urban water supplier shall include a detailed description of expected future projects and programs... that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

As shown in Table 6-6 below, the City of Coalinga does not have any planned water supply projects or programs that will provide a quantifiable increase to the City's supply. As previously stated, the City relies solely on surface water for its water supply. The City has evaluated the feasibility of groundwater use; however, due to the high concentrations of sodium, sulfates, and total dissolved solids (TDS) the groundwater in the Coalinga area is not considered a viable source of potable water. Therefore, the City intends to meet its projected water demands through the continued use of surface water alone.



Table 6-6 Expected Future Water Supply Projects or Programs (Standard Table 6-7)					
<input checked="" type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.				
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.				
	Provide page location of narrative in the UWMP				
Name of Future Projects or Programs	Joint Project with other agencies?	Additional Description (Planning Period)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply (MG/year)

## 6.9. Summary of Existing and Planned Sources

CWC 10631

*(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision 10631(a).*

*(4) (Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*

The primary water source for the City of Coalinga has historically been surface water provided through a water service contract with the Reclamation. Water delivered to the City is part of the California water supply facilities known as the Central Valley Project (CVP). The City's interim water service contract, in effect through February 28, 2021, requires the Reclamation to furnish the City of Coalinga with up to 10,000 acre-feet per year. Raw water destined for the City flows southerly in the Central Valley Project's California Aqueduct and then into the Coalinga Canal, approximately fifteen miles northeast of the City. A raw water pump station lifts water from the Canal to the City's surface WTP.

After water flows through the City's conventional filtration treatment plant, treated water is pumped by a filtered-water pump station into a 27-inch diameter pipeline on Palmer Avenue. Approximately two miles west of the WTP, the flow tees at Calaveras Avenue. Water flowing west continues for another mile and a half to the Palmer Avenue Reservoir. Water going to the Pleasant Valley State Prison travels south in the 12-inch Calaveras Avenue pipeline to the Calaveras Avenue Reservoir. After flowing through the Calaveras Reservoir, it continues south in Calaveras Avenue another 3.5 miles to Jayne Avenue and then east to the prison.

Water leaving the Palmer Reservoir flows through approximately eight miles of 24 and 27-inch transmission mains to the Derrick Avenue Reservoir. Water travels primarily from the Derrick Avenue Reservoir through 18, 24, and 30-inch transmission mains into the City's water distribution system. The distribution system

consists of a network of water mains ranging in size from 4 to 14-inches in diameter. The system is capable of supplying peak hour needs without excessive losses and can deliver fire flows to main lines.

During 2015, the City served a total population of approximately 16,626 through 3,647 active service connections. Table 6-7 below displays the amount of drinking water that was supplied to water customers in 2015.

<b>Table 6-7 Water Supplies — Actual (Standard Table 6-8)</b>			
<b>Water Supply</b>	<b>Additional Detail on Water Supply</b>	<b>2015</b>	
		<b>Actual Volume</b>	<b>Water Quality</b>
Surface Water	Purchased from the U.S. Bureau of Reclamation	1,166	Drinking Water
<b>Total</b>		1,166	-

Due to the poor groundwater quality in the area, the City of Coalinga intends to meet its projected water demands through the continued use of surface water alone. Currently, the City does not have any planned water supply projects or additional water supply sources that will provide a quantifiable increase to the City's supply. Table 6-8 below shows the projected water supply through 2040. The projected water supply is based on the 2.86 percent annual population growth presented in Section 3.4 of this UWMP.

**Table 6-8 Water Supplies — Projected (Standard Table 6-9)**

Water Supply	Projected Water Supply									
	2020		2025		2030		2035		2040	
	Reasonably Available Volume <sup>(1)</sup>	Total Right or Safe Yield <sup>(2)</sup>	Reasonably Available Volume <sup>(1)</sup>	Total Right or Safe Yield <sup>(2)</sup>	Reasonably Available Volume <sup>(1)</sup>	Total Right or Safe Yield <sup>(2)</sup>	Reasonably Available Volume <sup>(1)</sup>	Total Right or Safe Yield <sup>(2)</sup>	Reasonably Available Volume <sup>(1)</sup>	Total Right or Safe Yield <sup>(2)</sup>
Surface Water	3,259	1,320	3,259	1,498	3,259	3,259	3,259	1,938	3,259	2,210
<b>Total</b>	<b>3,259</b>	<b>1,320</b>	<b>3,259</b>	<b>1,498</b>	<b>3,259</b>	<b>3,259</b>	<b>3,259</b>	<b>1,938</b>	<b>3,259</b>	<b>2,210</b>
<p>NOTES:</p> <p><sup>(1)</sup>Reasonably available water supply includes water supplied by to the City by the Reclamation. Per the City's water service contract, the Reclamation is required to furnish the City with up to 10,000 acre-feet of water per year (approximately 3,259 MG per year).</p> <p><sup>(2)</sup>Total right or safe yield includes the City's projected water demands shown in Table 4-3 of this UWMP.</p>										

## **6.10. Climate Change Impacts to Supply**

The climatic conditions of the central San Joaquin Valley demand careful water management practices because of the typically low amount of rainfall and short rainy season and because of the high temperatures that frequently occur in the summer months. The average annual precipitation for the Coalinga area is approximately 7.61 inches. The rainy season typically runs from the beginning of November till the end of April. Drought conditions are not uncommon and can last for multiple years. Summer water consumption varies directly with daily temperature maximums and the Coalinga region experiences temperatures over 100 degrees during the summer months.

The City, as a water provider that is solely reliant upon surface water, is subject to significant water supply uncertainties and shortages due to dry hydrologic conditions. The amount of CVP water available each year for the City is based, among other factors, on the storage of winter precipitation and the control of spring runoff in the Sacramento and San Joaquin River basins. The schedule of CVP water conveyed to and diverted from these rivers is determined by state water right permits, judicial decisions, and state and federal obligations to maintain water quality, enhance environmental conditions, and prevent flooding. As a result, the City's surface water allocation may be decreased.

## CHAPTER 7 WATER SUPPLY RELIABILITY ASSESSMENT

### 7.1. Introduction

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) address the reliability of the agency's water supplies. This includes supplies that are vulnerable to seasonal or climatic variations. The UWMPA also requires that the UWMP include information on the quality of water supplies and how this affects management strategies and supply reliability. In addition, an analysis must be included to address supply availability in a single dry year and in multiple dry years. The relevant sections of the UWMPA are presented below.

### 7.2. Constraints on Water Sources

*CWC 10631(c)(2)*

*For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.*

*CWC 10634*

*The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability*

There are a variety of factors that can impact water supply reliability. These factors include water quality, legal constraints, and climatic issues. A brief discussion on each of these factors is provided below.

#### 7.2.1. Water Quality

The City's sole water source includes raw surface water obtained from the Sacramento-San Joaquin Delta (Delta). The water quality of the Delta is vulnerable to activities that occur near the source such as metal plating/finishing/fabricating, wood/pulp/paper processing and mills, and drinking water plants. Such activities can produce contaminants that may be detected in the water supply. In addition, the water quality of the Delta is also vulnerable to activities that are not associated with any detected contaminants such as concentrated aquatic animal production facilities, historic waste dumps/landfills, landfills/dumps, historic mining operations, and wastewater treatment plants and disposal facilities.

Potential water quality issues associated with the Delta could have an impact on water supply reliability in the near and long term. Further restrictions on pumping from the Delta could be imposed on the Central Valley Project (CVP) due to water quality issues or new standards. In this event, the City's surface water allocation may be decreased; however, it is unknown how these possible future reductions in pumping will impact the City's surface water allocation.

Another source of water quality issues is the potential contamination of water in the California Aqueduct or Coalinga Canal due to an intentional or unintentional spill of a contaminant. In this event, the emergency water reduction actions that are outlined in the City's Emergency Response Plan will be implemented.

### **7.2.2. Climatic Changes**

The climatic conditions of the central San Joaquin Valley demand careful water management practices because of the typically low amount of rainfall and short rainy season and because of the high temperatures that frequently occur in the summer months. The average annual precipitation for the Coalinga area is approximately 7.61 inches. The rainy season typically runs from the beginning of November till the end of April. Drought conditions are not uncommon and can last for multiple years. Summer water consumption varies directly with daily temperature maximums and the Coalinga region experiences temperatures over 100 degrees during the summer months.

Systems that rely heavily on surface water are most vulnerable to changes in water supply when a shift in precipitation and runoff amounts reduce the amount of surface water available. The amount of CVP water available each year for contractors is based on the storage of winter precipitation and the control of spring runoff in the Sacramento and San Joaquin River basins. The City, as a water provider that is solely reliant upon the CVP, is subject to significant water supply uncertainties and shortages due to dry hydrologic conditions, compounded by operational and regulatory constraints both directly and indirectly related to the Endangered Species Act. Much of the previously available yield from the CVP is no longer available to contractors as a result of regulatory actions and court rulings that mandate reoperation and water releases for environmental purposes. This reallocation of water supply over the last couple of decades with no added storage to offset these impacts potentially means the City will experience shortages more frequently and more severely in the future.

### **7.2.3. Legal Constraints**

Legal factors, such as surface water contracts, can affect the reliability of a water distribution system or water supply. Since 1968, the City has maintained a water service contract with the Reclamation, under which the Reclamation has agreed to supply the City with up to 10,000 acre-feet per year. Since the original contract expired in 2008, the City has maintained a series of interim renewal contracts pending the completion of site-specific environmental analysis for a long-term contract renewal. As previously stated, the City's most recent interim renewal contract was issued March 1, 2019 and remains in effect until February 28, 2021. The Reclamation and the City are currently in the process of negotiating a long-term contract, which is expected to be completed by 2021.

The City's water contract with the Reclamation to take water from the Sacramento and San Joaquin River basins is the City's main source of water. As stated above, the City's current contract allows the City to divert 10,000 acre-feet of CVP water per year for municipal and industrial (M&I) purposes; however, this supply is subject to shortages due to climate and environmental regulations. In normal years, there are no specific rules on how much of the CVP water must be allocated, but, during dry periods allocations of water supplies for M&I purposes are subject to rules in the Reclamation's M&I Shortage Policy. The Reclamation's M&I Shortage Policy was developed to:

- Define water shortage terms and conditions applicable to all CVP M&I contractors, as appropriate.

- Establish CVP water supply levels that would sustain urban areas during droughts, and during severe or continuing droughts would assist the M&I contractors in their efforts to protect public health and safety.
- Provide information to M&I contractors for development of drought contingency plans.

M&I water supply shortage is the difference between total M&I demands and the sum of the reduced CVP allocation and additional secure sources of supply for M&I purposes. In a severe water supply shortage (including a “Water Shortage Emergency” declared by the governor of the state of California), the USBR could reduce CVP water deliveries to the City to a public health and safety water supply level, providing CVP water is available. In such an event, the City will have to implement water conservation measures in order to satisfy human consumption, sanitation, and fire protection requirements. These measures are discussed further in Chapter’s 8 and 9 of this UWMP.

### 7.3. Reliability by Type of Year

*CWC Section 10631*

*(c)(1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:*

*(A) an average water year,*

*(B) a single dry water year,*

*(C) multiple dry water years.*

This section considers the City’s water supply reliability during three water scenarios: average (normal) year, single-dry year, and multiple-dry year period. Historically, the City’s water service contract with the Reclamation requires the diversion of 10,000 acre-feet of CVP water per year for M&I purposes. As shown in Table 7-1 below, during normal water years it has been assumed that the City will receive 100 percent of their CVP allocation from the Reclamation, which is approximately 3,259 MG per year. In the event of a single-dry year period, it has been assumed that the City’s allocation will be reduced by 50 percent and the volume available to meet the City’s water demand will be approximately 1,629 MG per year. In the event of a multiple-dry year, it has been assumed that the City allocation will be reduced by 25 percent during the first year and then 50 percent during the second and third years.

**Table 7-1 Basis of Water Year Data (Standard Table 7-1)**

Year Type	Base Year	Available Supplies if Year Type Repeats	
		Volume Available	% of Average Supply
Average Year	2015	3,259	100%
Single-Dry Year	2015	1,629	50%
Multiple-Dry Years 1st Year	2015	2,444	75%
Multiple-Dry Years 2nd Year	2015	1,629	50%
Multiple-Dry Years 3rd Year	2015	1,629	50%

## 7.4. Supply and Demand Assessment

### CWC 10635 (a)

*Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.*

### 7.4.1. Normal Year

Table 7-2 below compare current and projected water supply and demand during a normal water year. As stated in the previous section, it has been assumed that during a normal water year period, the City will receive 100 percent of their CVP allocation from the Reclamation, which is approximately 3,259 MG. As shown, the City will have a sufficient water supply to meet customer’s projected water demands through 2040.

Table 7-2 Normal Year Supply and Demand Comparison (Standard Table 7-2)					
	2020	2025	2030	2035	2040
Supply Totals <sup>(1)</sup>	3,259	3,259	3,259	3,259	3,259
Demand Totals <sup>(2)</sup>	1,320	1,498	1,703	1,938	2,210
Difference	1,938	1,760	1,555	1,320	1,048
NOTES:					
<sup>(1)</sup> Supply totals includes water supplied by to the City by the Reclamation. Per the City's water service contract, the Reclamation is required to furnish the City with up to 10,000 acre-feet of water per year (approximately 3,259 MG per year).					
<sup>(2)</sup> Demand totals are based on the City's projected water demands shown in Table 4-3 of this UWMP.					

### 7.4.2. Single Dry Year

Table 7-3 illustrates how the City will deal with the possibility of a reduced water supply in the event of a single-dry year period. During a single-dry year, it has been assumed that the City’s CVP water allocation will be reduced by 50 percent; therefore, the City’s available water supply would be approximately 1,629 MG during this period.

Dry year effects are simulated through a methodology which assumes that dry year demand will decrease by approximately 35 percent below normal year demands as a result of mandatory water use restrictions that are implemented by the City. Projected supplies were compared to the decreased demands for dry years and are presented in Table 7-3.



Table 7-3 Single Dry Year Supply and Demand Comparison (Standard Table 7-3)					
	2020	2025	2030	2035	2040 (Opt)
Supply Totals <sup>(1)</sup>	1,629	1,629	1,629	1,629	1,629
Demand Totals <sup>(2)</sup>	858	974	1,107	1,260	1,437
Difference	771	655	522	369	192
NOTES: <sup>(1)</sup> Supply totals includes water supplied by to the City by the Reclamation. During a single dry year period, it has been assumed that the City's CVP allocation will be reduced by 50%. <sup>(2)</sup> During a single dry year period, it has been assumed that the City's water demand will be reduced by 35%.					

#### 7.4.3. Multiple Dry year

Table 7-4 shows water supply and demands during multiple dry year events over the planning period. During a multiple-dry year period, it has been assumed that the City's CVP water allocation will be reduced by 25 percent during the first year and then then 50 percent during the second and third years. Therefore, during a multiple dry year period, the City's available water supply will be approximately 2,444 MG and 1,629 MG respectively.

Multiple dry year effects are simulated through a methodology which assumes that the first dry year will decrease by approximately 25 percent below normal year demands as a result of mandatory water use restriction. Similarly, the second and third dry year will decrease by approximately 35 percent below normal year demands.

Table 7-4 Multiple Dry Years Supply and Demand Comparison (Standard Table 7-4)						
		2020	2025	2030	2035	2040
First year	Supply Totals <sup>(1)</sup>	2,444	2,444	2,444	2,444	2,444
	Demand Totals <sup>(2)</sup>	990	1,124	1,278	1,454	1,658
	Difference	1,454	1,320	1,166	990	786
Second year	Supply Totals <sup>(1)</sup>	1,629	1,629	1,629	1,629	1,629
	Demand Totals <sup>(2)</sup>	858	974	1,107	1,260	1,437
	Difference	771	655	522	369	192
Third year	Supply Totals <sup>(1)</sup>	1,629	1,629	1,629	1,629	1,629
	Demand Totals <sup>(2)</sup>	858	974	1,107	1,260	1,437
	Difference	771	655	522	369	192
NOTES: <sup>(1)</sup> Supply totals includes water supplied by to the City by the Reclamation. During a a multiple dry year period, it has been assumed that the City's CVP allocation will be reduced by 25% during the first year, and then reduced by 50% during the second and third years. <sup>(2)</sup> During ta multiple dry year period, it has been assumed that the City's water demand will be decrease by 25% below normal year demands during the first year and then by 35% below normal year demands during the second and third year.						

As shown in Tables 7-2, 7-3, and 7-4, anticipated supplies for surface water are sufficient to meet all demands through year 2040 even under drought conditions. To continue to utilize surface water, it is essential that the City continue its current efforts towards conservation and employ the water shortage response provisions as outlined in the Water Shortage Contingency Plan detailed in Chapter 8.

## 7.5. Regional Supply Reliability

*CWC 10620 (f)*

*An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.*

The City recognizes the importance of maintaining a high quality, reliable water supply. Although water is a renewable resource, there is a limit on the amount of water that can be sustainably drawn from a given supply source. Due to the City's location and lack of other available water supply sources, the use of surface water as a primary water supply source is expected to continue through 2040.

Water conservation measures implemented by the City will increase water supply reliability. These measures are discussed further in Chapter's 8 and 9 of this UWMP. Conservation measures include prohibitions on end users, enforceable water waste policy, and methods to increase public awareness on water waste and water conservation.

## CHAPTER 8 WATER SHORTAGE CONTINGENCY PLANNING

### 8.1. Introduction

*CWC 10632(a)*

*The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier.*

- (1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.*
- (2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.*
- (3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.*
- (4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.*
- (5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.*
- (6) Penalties or charges for excessive use, where applicable.*
- (7) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.*
- (8) A draft water shortage contingency resolution or ordinance.*
- (9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.*

Water shortage contingency planning is a strategic planning process to prepare for and respond to water shortages. Good planning and preparation can help the City maintain reliable supplies and reduce the impacts of supply interruptions.

This chapter provides a description of the water shortage contingency planning efforts at the City of Coalinga. Guidance is included for reporting the staged response to a water shortage, such as a drought, that occurs over a period of time, as well catastrophic supply interruptions which occur suddenly.

A Water Shortage Contingency Plan (WSCP) is a document that can be created separately from the UWMP and amended as needed without amending the corresponding UWMP. However, the most current version of the WSCP must be included as part of the UWMP when the UWMP is submitted to DWR.

## 8.2. Stages of Action

*CWC 10632 (a)*

*(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.*

The number of stages of action in a WSCP is at the discretion of the water supplier. Typically, water agencies will include between three to five stages of action in a WSCP. The stages reflect decreasing water supplies with increasing levels of prohibitions and consumption reduction methods. Agencies must include a stage that addresses a reduction of 50 percent in the water supply.

Water agencies that rely solely on surface water, such as the City of Coalinga, are more likely to experience water shortages than those agencies relying primarily on groundwater. In addition to water allocation reductions, water supply shortages or interruptions can occur due to extended periods of drought, unexpected system failures, canal maintenance, regional power outages, earthquakes, etc.

California Water Code Section 375 et. seq. permits public entities that supply water for retail purposes to adopt and enforce a water conservation program, with the intent of reducing the quantity of water used by people and to conserve the water supplies of the public entity. In March 2009, the City Council of the City of Coalinga adopted Ordinance No. 746, which established a Water Conservation Plan. Title 6, Chapter 4C of the Coalinga Municipal Code implements mandatory restrictions related to the conservation of water. A copy of the City's WCP is provided in Appendix G.

As the water purveyor, the City must always provide the minimum health and safety water need for the community. The City's Water Conservation Plan consists of a three-stage water rationing plan to be enacted during a declared water shortage. The stages of the City's Plan are as follows:

### I. Stage 1: Standard Conservation Alert

The following restrictions shall be applicable throughout the year unless the City Council determines that an increased conservation effort shall be implemented (stage II or III):

- a) There shall be no hose washing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas.
- b) No water shall be used to clean, fill, operate or maintain levels in decorative fountains unless such water is part of a recirculation system.

- c) No water customer shall permit water to leak on his or her premises. Such leak shall be repaired in a timely manner after written notification by the City, but in no case in excess of seventy-two hours after notification.
- d) Designated times and days of irrigation:
  - 1) No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas between the hours of 10:00 a.m. and 6:00 p.m. This provision shall not apply to equestrian and livestock businesses, dairies, nurseries, athletic fields, golf courses, or other water dependent industries.
  - 2) The use of a handheld hose with a shut-off valve shall be permitted at any time.
- e) The use of water from fire hydrants shall be limited to fire fighting and related activities necessary to maintain the public health, safety, and welfare. An exception may be made for construction use through a proper city-designated meter where recycled water is not available.

II. Stage 2: High Water Conservation Alert

The following restrictions shall be applicable during a high water conservation alert as declared by the City Council and whenever a recommendation has been made by the City Manager in conjunction with the Chief Plant Operator of the water treatment plant based upon a significant reduction or interruption in water supply or delivery that necessitates increased water conservation efforts:

- a) All prohibitions and restrictions in Stage I shall be in effect.
- b) Commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from watering lawn, landscape, or other turf areas more than every other day. Irrigation shall occur between the hours of 6:00 p.m. and 6:00 a.m. only, with the exception of usage of recycled water.
- c) Designated times and days of irrigation:
  - 1) No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas on between the hours of 9:00 a.m. and 6:00 p.m. This provision shall not apply to equestrian and livestock businesses, dairies, nurseries, golf courses, or other water-dependent industries.
  - 2) Residential addresses ending in an even number may use water on Tuesday, and Friday. Residential addresses ending in an odd number and nonresidential (irrespective of address) may use water on Wednesday and Saturday.
  - 3) No irrigation shall occur on Sundays, Mondays and Thursdays.
- d) Swimming pool refilling or new construction swimming pool filling shall not occur without permission from the City Manager or his or her designee. The replenishment of swimming pools shall be limited to the same days as set forth in subsections (a) through (c) above for outdoor use of water.
- e) No restaurants or other public place which serves food shall serve drinking water to any customer unless expressly requested by the customer.

III. Stage 3: Emergency Water Conservation Alert

In the event of a major earthquake, large-scale fire, or other so called "act of nature" which has or could have serious impacts on the city's total available water storage or delivery capacity, whether storage capacities have been reduced or not, or in the case of an unanticipated significant reduction in City water supply, an emergency water conservation alert shall be declared by the City Council.

- a) All previous restrictions noted above in Stage I and Stage II shall be in effect.
- b) There shall be no outdoor use of water at any time except the minimal amount by handheld hose equipped with a shut-off nozzle.
- c) Commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from the outdoor use of water except by a hand-held hose equipped with a shut-off nozzle.
- d) All nonessential uses of water shall be prohibited including the filling, or refilling of swimming pools, spas, jacuzzis, or other like devices beyond what is necessary for maintenance.

The UWMP requires that agencies manage water supplies to minimize the social and economic impact of water shortages. The UWMP must be designed to provide a minimum 50 percent of normal supply during a severe or extended water shortage. Table 8-1 summarizes the Stages of the City's current Water Conservation Plan and the water supply condition that would determine when a particulate stage must be implemented.

Table 8-1 Stages of Water Shortage Contingency Plan (Standard Table 8-1)		
Level	Percent Supply Reduction <sup>1</sup>	Water Supply Condition
1	10-20%	Up to 20% (Standard Water Conservation Alert)
2	20-35%	20% - 35% (High Water Conservation Alert)
3	35-50%	35% - 50% (Emergency Water Conservation Alert)
<sup>1</sup> One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		

Each stage includes a water reduction objective as a percentage of normal demand. The Plan is dependent on the cause, severity, and anticipated duration of the water supply shortage. Provisions of the City's Water Conservation Plan applies to all water served to persons, customers, and properties within the City's service area. Under the City's Water Conservation Plan, mandatory measures will be undertaken to reduce water usage to meet the reduction goals in the event of shortages.

### 8.3. Prohibitions on End Uses

*CWC 10632 (a)*

*(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.*

*(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.*

The City's WCP contains provisions with regards to water conservation including prohibition on end uses during the various stages of water conservation. Table 8-2 lists the restriction on end uses at the various stages of water conservation.

**Table 8-2 Restrictions and Prohibitions on End Uses (Standardized Table 8-2)**

Stage(s)	Restrictions and Prohibitions on End Users	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for washing hard surfaces	No hose washing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas.	Yes
1	Water Features - Restrict water use for decorative water features, such as fountains	No water shall be used to clean, fill, operate or maintain levels in decorative fountains unless such water is part of a recirculation system.	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
1	Landscape - Limit landscape irrigation to specific times	No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas between the hours of 10:00 a.m. and 6:00 p.m.	Yes
1	Other - Require automatic shut of hoses		Yes
1	Other - Prohibit use of potable water for construction and dust control	The use of water from fire hydrants shall be limited to fire fighting and related activities necessary to maintain the public health, safety, and welfare. An exception may be made for construction use through a proper city-designated meter where recycled water is not available.	Yes
2	Landscape - Limit landscape irrigation to specific times	Commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from watering lawn, landscape, or other turf areas more than every other day. Irrigation shall occur between the hours of 6:00 p.m. and 6:00 a.m.	Yes

**Table 8-2 Restrictions and Prohibitions on End Uses (Standardized Table 8-2)**

Stage(s)	Restrictions and Prohibitions on End Users	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		only, with the exception of usage of recycled water.	
2	Landscape - Limit landscape irrigation to specific times	No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas on between the hours of 9:00 a.m. and 6:00 p.m. This provision shall not apply to equestrian and livestock businesses, dairies, nurseries, golf courses, or other water-dependent industries.	Yes
2	Landscape - Limit landscape irrigation to specific days	Residential addresses ending in an even number may use water on Tuesday, and Friday. Residential addresses ending in an odd number and nonresidential (irrespective of address) may use water on Wednesday and Saturday. No irrigation shall occur on Sundays, Mondays and Thursdays.	Yes
2	Other water feature or swimming pool restriction	Swimming pool refilling or new construction swimming pool filling shall not occur without permission from the City Manager or his or her designee.	Yes
2	CII - Restaurants may only serve water upon request		Yes
3	Landscape - Prohibit all landscape irrigation	There shall be no outdoor use of water at any time except the minimal amount by handheld hose equipped with a shut-off nozzle.	Yes
3	Landscape - Prohibit all landscape irrigation	Commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from the outdoor use of water except by a hand-held hose equipped with a shut-off nozzle.	Yes
3	Other water feature or swimming pool restriction	All nonessential uses of water shall be prohibited including the filling, or refilling of swimming pools, spas, jacuzzis, or other like devices beyond what is necessary for maintenance.	Yes

### 8.3.1. Landscape Irrigation

On May 18, 2017, the Coalinga City Council adopted Ordinance Number 801 amending the Coalinga Municipal Code related to the Water Conservation Plan to allow irrigation water any day of the week. Although the community is currently allowed to water any day of the week, they are not allowed to



practice wasteful watering habits. Such wasteful watering habits include watering during the heat of the day, hosing driveways, allow water to run into the street gutters, and not using shut-off nozzles.

During Stage 1 of the City’s Water Conservation Plan no water customer shall irrigate outdoor landscape area between the hours of 10:00 a.m. and 6:00 p.m.; however, water customers can continue to irrigate any day of the week. During Stage 2, landscape irrigation can only occur between the hours of 9:00 a.m. and 6:00 p.m, and residential addresses ending in an even number may use water on Tuesday and Friday, while residential addresses ending in an odd number nonresidential (irrespective of address) may use water on Wednesday and Saturday. In addition, during this water conservation stage commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from watering lawn, landscape, or other turf areas more than every other day. Irrigation of these areas shall occur between the hours of 6:00 p.m. and 6:00 a.m. only, with the exception of usage of recycled water. No landscape irrigation shall occur on Sundays, Mondays and Thursdays.

During Stage 3 of water conservation, the City shall prohibit the outdoor use of water at any time except the minimal amount by handheld hose equipped with a shut-off nozzle. Additionally, the outdoor use of water will also be prohibited for commercial nurseries, golf courses, and other water-dependent industries except if using a hand-held hose equipped with a shut-off nozzle.

#### **8.3.2. Commercial, Industrial, & Institutional (CII)**

According to Section 6-4C.07 of the Coalinga Municipal Code, no restaurants or other public places that serves food shall serve drinking water to any customer unless expressly requested by the customer. The City has not adopted specific water use restrictions have been adopted for industrial and institutional users.

#### **8.3.3. Water Features and Swimming Pools**

According to Section 6-4C.06 of the Coalinga Municipal Code, during stage 1 of water conservation, no water shall be used to clean, fill, operate or maintain levels in decorative fountains unless such water is part of a recirculation system. According to Section 6-4C.07, swimming pool refilling, or new construction swimming pool filling shall not occur without permission from the City Manager or his or her designee during stage 2 of water conservation. Additionally, the replenishment of swimming pools shall be limited to the same days that residential landscape irrigation occurs, as set forth in subsections (a) through (c) in Section 6-4C.07. According to Section 6-4C.08, all nonessential uses of water shall be prohibited during stage 3 of water conservation, including the filling, or refilling of swimming pools, spas, jacuzzis, or other like devices beyond what is necessary for maintenance.

#### **8.3.4. Defining Water Features**

*CWC 10632 (b)*

*Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including*

*ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.*

*Health and Safety Code Section 115921*

*As used in this article the following terms have the following meanings:*

*(a) "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.*

The City limits or prohibits the refilling of decorative fountains starting at Stage 1 of the Water Conservation Plan.

#### **8.3.5. Other**

The following prohibitions and regulations are contained in the Sections 6-4C.06 through 6-4C.08 of the Coalinga Municipal Code:

- There shall be no hose washing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas.
- No water customer shall permit water to leak on his or her premises. Such leak shall be repaired in a timely manner after written notification by the City, but in no case in excess of seventy-two (72) hours after notification.
- The use of water from fire hydrants shall be limited to fire fighting and related activities necessary to maintain the public health, safety, and welfare. An exception may be made for construction use through a proper city-designated meter where recycled water is not available.
- There shall be no outdoor use of water at any time except the minimal amount by handheld hose equipped with a shut-off nozzle.

#### **8.4. Penalties, Charges, Other Enforcement of Prohibitions**

*CWC 10632 (a)*

*(6) Penalties or charges for excessive use, where applicable.*

Chapter 6-4C.09 of the Coalinga Municipal Code the following penalties for water customers who violate the Water Conservation Plan:

- a) No water customer of the City shall knowingly use, or permit the use of, water in a manner contrary to any provisions of the Water Conservation Plan, or in an amount in excess of that use permitted by the Plan.

- b) Unless otherwise provided, any water customer violating any provision of the Water Conservation Plan shall be guilty of an infraction, and each day or portion thereof such violation is in existence shall be a new and separate offense.
- c) Any water customer determined to be guilty of a first-time violation shall be given a written reminder for compliance. Second and subsequent violations shall be punishable as follows:
  - 1) For a second violation during any period of declared water conservation alert: As an infraction, punishable by a fine of not more than fifty dollars (\$50.00).
  - 2) For a third violation during any period of declared water conservation alert: As an infraction, punishable by a fine not more than one hundred dollars (\$100.00).
  - 3) For a fourth violation during any period of declared water conservation alert: As an infraction, punishable by a fine not more than two hundred fifty dollars (\$250.00), and placement of a flow restrictor. In addition, the City may discontinue water services.
- d) Notwithstanding the above, the City Attorney or Deputy City Attorney may charge and prosecute second and subsequent offenses as misdemeanors at the City's sole discretion pursuant to California Water Code § 377. In addition to the above penalties, the City may file an action for civil abatement and, at the discretion of the court, be entitled to reimbursement for all necessary costs and Attorney's fees incurred through investigation, discovery, analysis, inspection, abatement and other actual costs incurred by the City or its agents pertaining to the violation.
- e) The Court shall fix the amount of any such reimbursements upon submission of proof of such costs by the City. Payment of any penalty provided in this section shall not relieve a person, firm or corporation, or other entity from the responsibility of correcting the condition resulting from the violation.
- f) In addition to the above remedies, the City Manager or his or her designee is empowered, to enforce any or all of the following penalties:
  - 1) Place a flow restricting device upon the water service;
  - 2) Lock off of a water meter;
  - 3) Remove a water meter;
  - 4) Shut off the service connection.
- g) All costs or expenses incurred by the City for enforcement of this section shall be borne by the water customer. No water service shall be limited or discontinued until the City Manager or his or her designee provides a written notice of intent to so limit or discontinue such service and the reasons for such decision, and further, provides such water customer notice of the right to request an administrative review and hearing pursuant to the procedures set forth in Section 6-4.26 of the Coalinga Municipal Code, except that any reference to "citation" in that section shall instead be deemed a reference to a "notice of intent" as described in this section. A written notice of intent shall be provided either by first class mail, by personal service on the water customer, or by posting said notice in a conspicuous place on the property wherein the violation occurred. Notwithstanding any other provision of this Code, there shall be no right to further administrative review or appeal.

## 8.5. Consumption Reduction Methods

### 8.5.1. Categories of Consumption Reduction Methods

Table 8-3 provides a summary of the consumption reduction methods that will be used by the City of Coalinga. The consumption reduction methods shown in the table come from the 2015 UWMP Guidebook for Urban Water Suppliers.

<b>Table 8-3 Stages of Water Shortage Contingency Plan - Consumption Reduction Methods (Standard Table 8-3)</b>		
<b>Stage</b>	<b>Consumption Reduction Methods by Water Supplier</b>	<b>Additional Explanation or Reference</b>
1	Expand Public Information Campaign	
1	Increase Water Waste Patrols	(to known or reported wasters)
1	Reduce System Water Loss	
2	Expand Public Information Campaign	
2	Increase Water Waste Patrols	(to known or reported wasters)
2	Reduce System Water Loss	
2	Decrease Line Flushing	
3	Expand Public Information Campaign	
3	Increase Water Waste Patrols	(to known or reported wasters)
3	Reduce System Water Loss	
3	Decrease Line Flushing	
3	Implement or Modify Drought Rate Structure or Surcharge	

Examples of specific actions that could fall into each category are discussed next. Where deemed helpful, comments regarding the City's specific implementations are also inserted into the suggested language from the State's publication.

- Expand Public Information Campaign- Begin or enlarge media campaign. Create bill insert with conservation information. Write articles for local newspaper. Conduct water efficiency workshops for different customer sectors.
- Improve Customer Billing- Increase billing frequency. Change format to report consumption in gallons per capita per day. Add information to the bill comparing the customer's use to similar customers.
- Offer Water Use Surveys- Actively reach out to high water users to offer water use surveys. Expand water use survey program to include new sectors.
- Provide Rebates or Giveaways of Plumbing Fixtures and devices- Implement new (toilet, clothes washer, etc....) rebate programs. Implement new (shower head, aerator, etc....) giveaway programs. The City will investigate funding sources and implementation of such programs over its next five-year water management planning cycle.

- Provide Rebates for Landscape Irrigation Efficiency - Implement a new landscape efficiency rebate program that provides rebates for landscape conversion, irrigation controllers, sprinkler heads, etc.... Funding for programs of this type has not been available. The City will investigate funding sources and implementation of such programs over its next five-year water management planning cycle.
- Decrease Line Flushing - Decrease the length of time for each line flushing. Decrease the frequency of line flushing.
- Reduce System Water Loss - Implement a water audit program and expand the leak repair program to control system losses.
- Increase Water Waste Patrols - Implement a Water Waste Patrol program. Increase staffing for Water Waste Patrol. Increase authority of Water Waste Patrol.
- Implement or Modify Drought Rate Structure or Surcharge - Implement a drought rate structure or modify a drought rate structure with a drought surcharge on all customers.

#### **8.5.2. Rate Structures**

"Drought surcharges" are surcharges that are implemented in times of water shortage. A drought surcharge is different from a conservation rate structure, which is in place at all times. Agencies may choose to embed a drought rate structure within their conservation rate structure. The City does not currently have a drought surcharge rate ordinance; provisions to recover costs directly caused by the drought were not built into the City's base rates. The City intends to cover the costs for any drought related expenses and the shortage in revenues from operational reserves. If the duration of a drought period is such that reserves are exhausted the City may elect to implement a drought surcharge at that time

It is an important water conservation strategy to set costs that recover the full water program costs. These costs include recharge and actions to sustain the groundwater basin that stores one hundred percent of the City's water supply. When these costs are ignored the price of water does not reflect its true costs. Traditional economic theories teach that any product that is underpriced will be subject to higher consumption demand than would be the case if fairly priced. This same principle seems to also apply to water.

As previously stated, the City meters all water services and charges for serve based on the quantity of water used. The City's rate structure includes a monthly fixed service charge based upon the size of the customer's meter, in addition to a volumetric or commodity charge based upon the total volume of water consumed by the customer during the billing period. Under the City's 2015 rate structure and assuming a monthly consumption of 10,000 gallons, approximately 57 percent of the monthly residential is fixed, while 43 percent is variable based on meter consumption charges. The City may elect in the future to further reduce the fixed amount in lieu of higher consumption charges. The City's rates also contain a tiered structure with higher consumption rates in the upper tiers which also encourages water conservation. A copy of the City's rate structure is provided in Appendix H.

## 8.6. Determining Reductions

*CWC 10632(a)*

*(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.*

At a given water supply shortage level, customers will be required to reduce their water consumption by a specified percentage. Actual water restrictions are determined by comparing metered water consumption to the consumption during the same billing period in the last calendar year.

## 8.7. Revenue and Expenditure Impacts

*CWC 10632 (a)*

*(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.*

A portion of Coalinga's revenues come from volumetric water rates. During 2015, water sales revenues were charged at a rate of \$1.56/1,000 gallons for an initial 10,000 gallons and then \$1.91/1,000 gallons for 10,001 to 30,000 gallons. Any water sales revenues over 30,000 gallons are charged at a rate of \$2.32/1,000 gallons. As a result, Coalinga's revenues vary depending on the stage of water conservation that they City is in. In dry years, local demands will decrease as a consequence of prohibitions on certain water uses, and Coalinga may receive lower than anticipated revenues due to reduced sales volumes. In contrast, in wet years, demands increase as prohibitions are lifted, and revenues increase due to higher sales volumes.

Such revenue surpluses and shortages could cause instability in water rates. To mitigate this risk, Coalinga maintains financial reserves, with a minimum and target balance, to stabilize water rates during times of reduced water sales. The reserves hold revenues collected during times of high-water sales and are used to offset the need for revenues during times of low sales.

## 8.8. Resolution or Ordinance

*CWC 10632 (a)(8)*

*A draft water shortage contingency resolution or ordinance.*

Ordinance No. 746 was approved by the Coalinga City Council and became effective on March 19, 2009. Ordinance No. 746 established the City's WCP and implemented mandatory prohibitions related to water

conservation. The City adopted the Ordinance based upon the need to conserve water supplies and to avoid or minimize the effects of a future water shortage. A copy of the City's WCP is provided in Appendix G.

## 8.9. Catastrophic Supply Interruption

CWC 10632

*(a)(3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.*

This section of the UWMP identifies what actions will be taken by the City if there is a catastrophic reduction in water supplies. Catastrophic supply interruptions differ from the staged drought responses addressed earlier in this chapter in that catastrophic interruptions occur suddenly and can immediately jeopardize a large portion, or all, of the City's water supply. Catastrophic water shortages could occur as a result of earthquake damage, power outage, or water quality emergency.

In December 2004, the City adopted an Emergency Response Plan (ERP) for the water system to conform with Public Law 107-188 (The Bio-Terrorism Preparedness and Response Act). The purpose of the ERP is to provide City staff, particularly those responding to emergency situations concerning the water system, including police and firemen, with clear procedures and direction and to delineate a communication network and authority structure that will accommodate emergency personnel as well as key decision makers. The ERP addresses specific actions that will need to be taken during a water supply interruption, such as an earthquake or a regional power outage.

In addition to specific directions for actions that need to be taken during an emergency, the City's ERP contains the following:

- Emergency 24-hour telephone numbers for key City of Coalinga staff.
- Emergency telephone numbers for key State Department of Health Services staff.
- Samples of various public notices (Boil Water Notice, Unsafe Water – Do Not Drink Notice, & Public Notice of Regulation Violation) and specific directions for both their implementation and subsequent lifting.
- Complete list of all radio and TV stations and newspapers serving the Coalinga area.
- A list of emergency water purveyors that could supply water to the community for drinking and to maintain sanitary conditions
- A complete emergency response contact list of key City of Coalinga staff and Council members.

Although the ERP specifically addresses the City's water system, it is intended to complement and supplement the City of Coalinga Emergency Management Plan, which provides the basis for disaster response planning in Coalinga. The Plan is continually updated to address the jurisdiction's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and nuclear defense operations. Operational data including a listing of resources, key personnel, essential facilities, contacts, and other data needed for conducting emergency operations are also provided.

## 8.10. Minimum Supply Next Three Years

*CWC 10632 (a) (2)*

*An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.*

The CWR requires that the City estimate the minimum water supply available at the end of 12, 24, and 36 months, assuming the City's driest three-year historic supply. As stated throughout this UWMP, the City water supply consists solely of surface water obtained through a water service contract with the Reclamation. Historically, the City's water service contract requires the division of 10,000 ac-ft of CVP water on an annual basis. However, due to drought periods, climate and environmental regulation the City's water supply may be subject to a reduction. For this reason, the City's minimum supply over the next three years includes both the unrestricted water supply and minimum water supply available. As shown in Table 8-4, the unrestricted water supply is based on the City full water supply allocation from the Reclamation and the minimum available water supply is based on the single-dry year period. As previously described in Section 7.3, the single-dry year period assumes that the City's allocation will be reduced by 50 percent and the volume available to meet the City's water demand will be approximately 1,629 MG per year.

Table 8-4 Minimum Supply Next Three Years (Standard Table 8-4)			
Description	2016	2017	2018
Unrestricted Water Supply <sup>(1)</sup>	3,259	3,259	3,259
Minimum Available Water Supply <sup>(2)</sup>	1,629	1,629	1,629
NOTES: <sup>(1)</sup> Based on the City's full allocation CVP water received from the Reclamation. <sup>(2)</sup> Based on single-dry year supplies, as shown in Table 7-1. Single-dry year assumes that the City's allocation will be reduced by 50 percent.			



## CHAPTER 9 DEMAND MANAGEMENT MEASURES

### 9.1. Introduction

Demand management measures (DMMs) are specific actions a water supplier takes to support its water conservation efforts. The goal of this Demand Management Measures (DMM) Chapter is to provide a comprehensive description of the water conservation programs that the City has implemented, is currently implementing, and plans to implement in order to meet its urban water use reduction targets.

The section of the CWC addressing DMMs was significantly modified in 2014, based on recommendations from the Independent Technical Panel (ITP) to the legislature. The ITP was formed by DWR to provide information and recommendations to DWR and the Legislature on new demand management measures, technologies and approaches to water use efficiency.

In its report to the Legislature, the ITP recommended that the UWMP Act should be amended to simplify, clarify, and update the DMM reporting requirements. The ITP recommended, and the legislature enacted, streamlining the retail agency requirements from 14 specific measures to six more general requirements plus an “other” category.

The City realizes the importance of DMMs to ensure a reliable future water supply. The City is committed to implementing water conservation programs to maximize sustainability in meeting future water needs for its customers. Due to the continued effective water conservation measures implemented by the City, the 2015 per capita water use has dropped to roughly 184 gallons per capita per day (GPCD) from 273 GPCD in 2010.

A description of the City’s DMMs follows.

### 9.2. Demand Management Measures for Retail Agencies

*CWC 10631 (f)*

*(1) (B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*

*(i) Water waste prevention ordinances.*

*(ii) Metering.*

*(iii) Conservation pricing.*

*(iv) Public education and outreach.*

*(v) Programs to assess and manage distribution system real loss.*

*(vi) Water conservation program coordination and staffing support.*

*(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

### 9.2.1. Water Waste Prevention Ordinance

This DMM consists of adopting and enforcing a water waste ordinance that explicitly states that the waste of water is to be prohibited. The ordinance must prohibit specific actions that waste water, such as excessive runoff from landscape irrigation, or use of a hose outdoors without a shut off nozzle.

The City adopted a Water Conservation Ordinance in 2009, which amended Title 6 of the Coalinga Municipal Code by adding Chapter 4C, Water Conservation. Section 6-4C.06 through Section 6-4C.09 describe the City's water conservation states and enforcement penalties. The City is currently in Stage 1, standard conservation alert, of water conservation.

Over the last few years, the City has been more pro-active in response to water wasting. Water wasting within the City is prevented by prohibiting the hosing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas. In addition, water wasting is prevented by prohibiting runoff into the street gutters, establishing a 72-hour time frame limit to fix leaks or breaks, requiring the use of outdoor hoses with a shut-off nozzle and prohibiting watering during the heat of the day. The increased vigilance and enforcement by the City have been reflected in the per capita water use, which has declined approximately 33 percent from 273 GPCD in 2010 to 184 GPCD in 2015.

### 9.2.2. Metering

#### *CWC 526*

*(a) Notwithstanding any other provisions of law, an urban water supplier that, on or after January 1, 2004, receives water from the Federal Central Valley Project under a water service contract or subcontract... shall do both of the following:*

*(1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings... located within its service area.*

#### *CWC 527*

*(a) An urban water supplier that is not subject to Section 526 shall do both the following:*

*(1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.*

This DMM requires that water meters be installed for all new connections to allow billing by volume of use. This program also applies to retrofitting any existing unmetered connections. In 1989, all customer classes within the City, except for single-family residential, were metered. In the early 1990's, the City passed an ordinance requiring that any single-family residential homeowner selling their home was required to install a water meter as a condition of the sale. By 1995, the number of single-family residential homes that remained without meters had been reduced to a point that the City opted to affect installation of meters on all remaining un-metered services. By the late 1990s, all of the City of Coalinga water services were metered and currently remain metered to this day. City staff collects monthly meter readings and bills for water using conservation pricing and a tiered volumetric rate structure.

### **9.2.3. Conservation Pricing**

As described above, the City meters all services and charges for water use based on the quantity on water used. The tiered rate structure includes a monthly fixed service charge based on the size of the customer's meter, in addition to a commodity charge based on the total volume water consumed by the customer during the billing period. For example, during 2015, urban residential and commercial customers paid a fixed rate of \$20.83 for a 1-inch meter and a volumetric charge of \$1.56/1,000 gallons for the first 10,000 gallons. If the residential or commercial customers used between 10,001 and 30,000 gallons during a billing period, the volumetric charge would increase to \$1.91/1,000 gallons. Water usage over 30,000 gallons is billed at a rate of \$2.32/1,000 gallons. The excess consumption amount is added to customer's the monthly bill.

### **9.2.4. Public Education and Outreach**

The City distributes public information regarding water issues in mass mailings to all water service customers through the U.S. mail, the City's Internet website, and directly to walk-in customers at City Hall. Also, when warranted, time-critical public information is dispersed through the local print media, radio station announcements and public events.

Water use regulations and the annual Drinking Water Consumer Confidence Report (water quality report) are mailed each year to all customers. The City takes advantage of these mailings when necessary to provide its customers additional information on water conservation and other demand management measures.

The City monthly water bill distributed to all water service customers is another vehicle used by the City for public education purposes. The bill mailing also contains public service announcements that are used to remind citizens of conservation and demand management measures.

### **9.2.5. Programs to Assess and Manage Distribution System Real Loss**

The City recognizes distribution system leakage can be a primary type of loss. While it is essential to control losses, the initial step is to assemble a water audit to identify the nature and volumes of losses and financial impacts that these losses exert. A water audit is a process of reviewing water use throughout a water system in order to quantify the volume of water not accounted for by the metering system of the water customers, which is typically the difference between metered well production, in the case of the City of Coalinga, and metered usage on a system-wide basis.

As described in Section 4.4 of this 2015 UWMP, the City's unaccounted water volume for 2015 averaged approximately 13 percent of the total water produced. In the future, the City complete annual water audits to accurately quantify the volume of water loss. Leak detection programs will be implemented to locate and reduce water loss in the distribution system. The City is also planning to begin submitting American Water Works Association (AWWA) Stand Water Audit and Water Balance worksheets every year.

The City Public Works Department utilizes specialized equipment for leak detection on an as-needed basis. The City does not track the number of miles of pipeline surveyed or the number of repairs completed each year but will do so in the future.

### **9.2.6. Water Conservation Program Coordination and Staffing Support**

Currently, the role of a water conservation coordinator for the City of Coalinga is shared among various City staff. As increased implementation of water demand management measures are brought into action, the City will create a part-time Water Conservation Coordinator position or assign specifically defined responsibilities to an existing position. These would likely include implementation, tracking, and coordination of water conservation programs, coordination with other agencies, and reporting to senior City staff.

### **9.2.7. Other Demand Management Measures**

#### **9.2.7.1. Residential Plumbing Retrofit**

This program benefits existing customers by reducing their water consumption while minimizing the impact of their lifestyle. State legislation requires the installation of efficient plumbing in new construction, and effective 1994 requires that only Ultra Low Flush (ULF) Toilets be sold in California.

Several studies suggest that savings resulting from miscellaneous interior retrofit fixtures can range between 25 and 65 gallons per day per housing unit. The studies also suggest that installation of retrofit fixtures in older single-family homes tend to produce more savings, while newer multi-family homes tend to produce less savings per housing unit.

Currently, the City requires ULF toilets in all new construction, but does not currently have a program to retroactively replace plumbing fixtures and appliances for residential customers. If available, the City will seek funding in the future to offer customers new water saving devices such as faucet aerators, water-saving shower heads and toilet tanks.

#### **9.2.7.2. High-Efficiency Washing Machine Rebate Program**

This program generally provides a financial incentive (rebate offer) to qualifying customers who install high efficiency washing machines in their home. Other regional municipalities that performed an economic analysis on this program concluded that it would have a low benefit-to-cost ratio. This program is not currently implemented in the City. However, the City will seek grant funding when available to offer rebate program to customers.

## **9.3. Implementation over the Past Five Years**

*CWC 10631*

*(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:*

*(1) (A) ... a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.*

The following is a description of the water conservation efforts that the City has been implementing over the last five years:

I. Ordinance

In 2009, the City adopted a Water Conservation Ordinance which established Chapter 4C of Title 6 of the Coalinga Municipal Code. The Ordinance defines what actions constitute as water wasting and establishes penalties for violating the ordinance. The City adopted the Ordinance based upon the need to conserve water supplies and to avoid or minimize the effects of future water shortages. The City is currently in Stage 1 of water conservation.

In 2010, the City adopted Ordinance No. 755, which revised Chapter 4B of Title 6 of the Coalinga Municipal Code and adopted by reference the State Model Water Efficiency Landscape Ordinance.

In 2017, the City Council adopted Ordinance No. 801 amending the Coalinga Municipal Code related to the Water Conservation Plan to allow irrigation watering any day of the week. However, other language in the Ordinance remains unchanged and includes:

- No watering during the heat of the day;
- No hosing of driveways;
- No water running to street gutters;
- Shut-off nozzles must be used.

II. Metering

Since the later 1990's, the City has installed meters on all accounts and replaced older meters on existing accounts, when necessary.

III. Conservation Pricing

As discussed above, City has not considered pursuing a water budget based on conservation pricing. The tiered water rates have the same allocations for residential, commercial, and industrial. A water budget based pricing would become much more complex with various rates needed for various size single-family lots, multi-family parcels, different types of commercial businesses and industrial users. Currently, the City's rate structure includes a monthly service charge based upon the size of the customer's meter, in addition to a volumetric or commodity charge based upon the total volume of water consumed by the customer during the billing period.

IV. Public Education and Outreach

The programs described above and in Chapter 8 were either expanded or started in the last five years.

V. Water Distribution System Losses

Leak detection programs will be implemented to locate and reduce water loss in the distribution system. The City will complete annual water audits of its water production and metered deliveries to ensure that leakage in the distribution system is maintained at low levels or further reduced.

VI. Water Conservation Program Coordination and Staffing Support

The City has enlisted the assistance of all staff in any City department that is in the field and residents for purposes of reporting running water or potential water waste. These outside working staff are to report such observations to water department staff.

## 9.4. Planned Implementation to Meet Water Use Targets

### *CWC 10631*

*(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:*

*(1) (A) ...The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*

As discussed just above, the City has implemented, either totally or in part, all of the demand management measures described in California Water Code 10631. The City is on target to meet its target of 273 GPCD in 2020, having already exceeded its goal at the 2015 midpoint (achieved 184 GPCD versus the 307 GPCD 2015 goal). It is likely that the City will continue to observe State 1 of the WCP.

## 9.5. Members of the California Urban Water Conservation Council

### *CWC 10631 (i)*

*For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.*

In 1991 (amended September 16, 1999), an MOU regarding urban water conservation in California was made that formalizes an agreement between the Department of Water Resources (DWR), water utilities, environmental organizations, and other interested groups to implement DMMs and make a cooperative effort to reduce the consumption of California's water resources. This MOU is administered by the California Urban Water Conservation Council (CUWCC). The City of Coalinga is not currently a signatory of the MOU and is therefore not a member of the CUWCC. The City may consider becoming a member of the CUWCC in the future.

However, the City of Coalinga realizes the importance of BMPs to ensure a reliable future water supply. The City is committed to implementing water conservation programs to maximize sustainability in meeting future water needs for its customers. Due to the continued effective water conservation measures implemented by the City, the 2015 per capita water use has dropped to roughly 184 GPCD from 372 GPCD in 2005. Even though the City is already in compliance with their 2020 Confirmed Target of 273 GPCD, they will continue to monitor and adjust as necessary to this target in 2020.

## CHAPTER 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

### 10.1. Inclusion of all 2015 Data

This 2015 UWMP includes the water use and planning data for the entire year of 2015.

### 10.2. Notice of Public Hearing

Water suppliers must hold a public hearing prior to adopting the 2015 UWMP. The public hearing provides an opportunity for the public to provide input to the plan before it is adopted. The City Council shall consider all public input before the 2015 UWMP is adopted.

#### 10.2.1. Notice to Cities and Counties

*CWC 10621 (b)*

*Every urban water supplier required to prepare a plan shall... at least 60 days prior to the public hearing on the plan ... notify any city or county within which the supplier provides waters supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

*CWC 10642*

*The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.*

The City is the sole water supplier and water management agency for the area. For this reason, the City did not participate in an area, regional, watershed, or basin wide UWMP. While preparing the 2015 UWMP, however, the City coordinated its efforts with relevant agencies to ensure that the data and issues discussed in the plan are presented accurately.

The City provided formal written notification to County of Fresno that the City's 2015 UWMP was being prepared. A copy of the Notification letter is included in Appendix C. Copies of the final UWMP will be provided to Fresno County no later than 30 days after its submission to DWR.

#### 10.2.2. Notice to the Public

*CWC 10642*

*Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection ...*

*Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code.*

*Government Code 6066*

*Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.*

Copies of the City's draft UWMP were made available for public review at City Hall. The City noticed a public hearing to review and accept comments on the draft plan with more than two weeks in advance of the hearing. The notice of the public hearing was published in the local press and filed with the City Clerk. On \_\_\_\_\_ 2020, the City held a noticed public hearing to review and accept comments on the draft plan. Notice of the public hearing was published in the local press and a copy of the Notice of Public Hearing is included in Appendix M.

As required by the Act, the 2015 UWMP is being provided by the City to the California Department of Water Resources, the California State Library, and the public within 30 days of the City's adoption.

### **10.3. Public Hearing and Adoption**

*CWC 10642*

*Prior to adopting a plan, the urban water supplier ...shall hold a public hearing thereon.*

*CWC 10608.26*

*(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:*

- (1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.*
- (2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.*
- (3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target. (RETAIL AGENCIES ONLY)*

Pursuant to the requirements of the UWMPA, this section summarizes the adoption, submittal, and implementation of the City's 2015 UWMP.

#### **10.3.1. Adoption**

*CWC 10642*

*After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*



The City prepared this 2015 UWMP during the winter and spring of 2020. The plan was adopted by its City Council on \_\_\_\_\_ 2020. A copy of the adopting resolution is provided in Appendix N.

Table 10-1 Notification to Cities and Counties (Standard Table 10-1)		
County Name	60 Day Notice	Notice of Public Hearing
Fresno County	☒	☒

## 10.4. Plan Submittal

*CWC 10621(d)*

*An urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.*

*CWC 10644(a)*

*An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.*

*CWC 10635 (b)*

*The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.*

### 10.4.1. Submitting a UWMP to DWR

The City submitted the UWMP to the DWR on \_\_\_\_\_ 2020, using the electronic WUEdata submittal tool developed by DWR. A copy of the completion checklist is included in Appendix O.

### 10.4.2. Submitting UWMP to the California State Library

Within 30 days of submitting the UWMP to DWR the adopted UWMP was made available for public review during normal business hours at the locations specified for the viewing of the Draft 2015 UWMP and copies of the UWMP were submitted to the California State Library and Fresno County.

### 10.4.3. Submitting UWMP to the Cities and Counties

Within 30 days of submitting the UWMP to DWR the adopted UWMP was submitted to the County of Fresno.

## 10.5. Public Availability

*CWC 10645*

*Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.*

The adopted 2015 UWMP will be made available for public review at the City of Coalinga City Hall and Department of Public Works. Public may review the 2015 UWMP during regular business hours. In addition, a copy of the 2015 UWMP will also be posted on the City's website.

## **10.6. Amending an Adopted Plan**

*CWC 10621(c)*

*The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).*

*CWC 10644(a)*

*Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.*

If major changes are made to this 2015 UWMP, the City will hold an additional public hearing and City Council will readopt the plan.

**APPENDIX A**  
**URBAN WATER MANAGEMENT PLAN ACT**

---

**California Water Code Division 6, Part 2.6.**

**Chapter 1. General Declaration and Policy §10610-10610.4**

**Chapter 2. Definitions §10611-10617**

**Chapter 3. Urban Water Management Plans**

Article 1. General Provisions §10620-10621

Article 2. Contents of Plans §10630-10634

Article 2.5. Water Service Reliability §10635

Article 3. Adoption And Implementation of Plans §10640-10645

**Chapter 4. Miscellaneous Provisions §10650-10656**

## **Chapter 1. General Declaration and Policy**

### **SECTION 10610-10610.4**

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.
- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
- (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.
- (b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

- (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
- (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
- (c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

## **Chapter 2. Definitions**

### **SECTION 10611-10617**

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses,

reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

## **Chapter 3. Urban Water Management Plans**

### **Article 1. General Provisions**

#### **SECTION 10620-10621**

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).
- (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.
- (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
- (d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.
- (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that

share a common source, water management agencies, and relevant public agencies, to the extent practicable.

- (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
  - (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.
10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).
- (b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
- (c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).
- (d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

## **Article 2. Contents of Plan**

### **SECTION 10630-10634**

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.
10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:
- (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.
  - (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of

water available to the supplier, all of the following information shall be included in the plan:

- (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
  - (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.
  - (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
  - (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:
- (A) An average water year.
  - (B) A single-dry water year.
  - (C) Multiple-dry water years.
- (2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.



- (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:
  - (A) Single-family residential.
  - (B) Multifamily.
  - (C) Commercial.
  - (D) Industrial.
  - (E) Institutional and governmental.
  - (F) Landscape.
  - (G) Sales to other agencies.
  - (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
  - (I) Agricultural.
  - (J) Distribution system water loss.
- (2) The water use projections shall be in the same five-year increments described in subdivision (a).
- (3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.
  - (B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.
- (4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

- (B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:
  - (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.
  - (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.
- (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
  - (1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.
  - (B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:
    - (i) Water waste prevention ordinances.
    - (ii) Metering.
    - (iii) Conservation pricing.
    - (iv) Public education and outreach.
    - (v) Programs to assess and manage distribution system real loss.
    - (vi) Water conservation program coordination and staffing support.
    - (vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.
  - (2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.
- (g) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water

use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

- (h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
- (i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.
- (j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.1. (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

- (b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan may, but is not required to, include any of the following information:

- (1) An estimate of the amount of energy used to extract or divert water supplies.
  - (2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.
  - (3) An estimate of the amount of energy used to treat water supplies.
  - (4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.
  - (5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.
  - (6) An estimate of the amount of energy used to place water into or withdraw from storage.
  - (7) Any other energy-related information the urban water supplier deems appropriate.
- (b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

- (2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).
- (3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has

submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, "not locally cost effective" means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

- (i) Compliance on an individual basis.
  - (ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.
- (B) The department may require additional information for any determination pursuant to this section.
- (3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.
- (c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).
- (d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.
- (e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

- (f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

10631.7. The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

10632. (a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:
- (1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.
  - (2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.
  - (3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.
  - (4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.
  - (5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are

appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

- (6) Penalties or charges for excessive use, where applicable.
  - (7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.
  - (8) A draft water shortage contingency resolution or ordinance.
  - (9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.
- (b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.



- (e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
  - (f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
  - (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.
10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

## **Article 2.5. Water Service Reliability**

### **SECTION 10635**

10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.
- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.
- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

### **Article 3. Adoption and Implementation of Plans**

#### **SECTION 10640-10645**

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.

After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644. (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

- (b) (1) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part.

The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

- (2) A report to be submitted pursuant to paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

- (c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

- (2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

- (3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

## **Chapter 4. Miscellaneous Provisions**

### **SECTION 10650-10656**

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

- (b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.
10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.
10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.
10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.
10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.
10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.
10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26

(commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

**APPENDIX B**  
**WATER CONSERVATION ACT (SB X7-7)**

---

**California Water Code Division 6, Part 2.55.**

<b>Chapter 1. General Declarations and Policy</b>	<b>§10608-10608.8</b>
<b>Chapter 2. Definitions</b>	<b>§10608.12</b>
<b>Chapter 3. Urban Retail Water Suppliers</b>	<b>§10608.16-10608.44</b>
<b>Chapter 4. Agricultural Water Suppliers</b>	<b>§10608.48</b>
<b>Chapter 5. Sustainable Water Management</b>	<b>§10608.50</b>
<b>Chapter 6 Standardized Data Collection</b>	<b>§10608.52</b>
<b>Chapter 7 Funding Provisions</b>	<b>§10608.56-10608.60</b>
<b>Chapter 8 Quantifying Agricultural Water Use Efficiency</b>	<b>§10608.64</b>

## **Chapter 1. General Declarations and Policy**

### **SECTION 10608-10608.8**

10608. The Legislature finds and declares all of the following:

- (a) Water is a public resource that the California Constitution protects against waste and unreasonable use.
- (b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.
- (c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.
- (d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.
- (e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.
- (f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.
- (g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.
- (h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

- (i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

- (a) Require all water suppliers to increase the efficiency of use of this essential resource.
- (b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.
- (c) Measure increased efficiency of urban water use on a per capita basis.
- (d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.
- (e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.
- (f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.
- (g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.
- (h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.
- (i) Require implementation of specified efficient water management practices for agricultural water suppliers.
- (j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.
- (k) Advance regional water resources management.

10608.8. (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

- (2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to



January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

- (3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.
- (b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.
- (c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.
- (d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

## **Chapter 2 Definitions**

### **SECTION 10608.12**

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

- (a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.
- (b) "Base daily per capita water use" means any of the following:
  - (1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

- (2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
- (3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.
- (c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.
- (d) "Commercial water user" means a water user that provides or distributes a product or service.
- (e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.
- (f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.
- (g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:
  - (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.
  - (2) The net volume of water that the urban retail water supplier places into long-term storage.
  - (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.
  - (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.
- (h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.
- (i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

- (j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.
- (k) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.
- (l) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.
- (m) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:
  - (1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:
    - (A) Metered.
    - (B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.
    - (C) Treated to a minimum tertiary level.
    - (D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.
  - (2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.
- (n) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:
  - (1) The capture and reuse of stormwater or rainwater.
  - (2) The use of recycled water.
  - (3) The desalination of brackish groundwater.

- (4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.
- (o) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.
- (p) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.
- (q) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.
- (r) "Urban wholesale water supplier," means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

## **Chapter 3 Urban Retail Water Suppliers**

### **SECTION 10608.16-10608.44**

10608.16.(a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

- (b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20.(a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

- (2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

- (b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

- (1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

- (2) The per capita daily water use that is estimated using the sum of the following performance standards:

- (A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.
  - (B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.
  - (C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.
- (3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.
- (4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:
- (A) Consider climatic differences within the state.
  - (B) Consider population density differences within the state.
  - (C) Provide flexibility to communities and regions in meeting the targets.
  - (D) Consider different levels of per capita water use according to plant water needs in different regions.
  - (E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.
  - (F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.
- (c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method

described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

- (d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.
- (e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.
- (f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
- (g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).
- (h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:
  - (A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.
  - (B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.
- (2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.
- (i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.
- (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the

Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

- (j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.
- (2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

10608.22. Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph(3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

10608.24.(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in

paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

- (e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.
- (f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.
- (2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26.(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

- (1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.
  - (2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.
  - (3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.
- (b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.
- (c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the conservation of that military installation under federal Executive Order 13514.
- (d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit



an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

- (2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28.(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

- (1) Through an urban wholesale water supplier.
  - (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).
  - (3) Through a regional water management group as defined in Section 10537.
  - (4) By an integrated regional water management funding area.
  - (5) By hydrologic region.
  - (6) Through other appropriate geographic scales for which computation methods have been developed by the department.
- (b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans

submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42.(a) The department shall review the 2015 urban water management plans and report to the Legislature by July 1, 2017, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.

(b) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

- (a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.
- (b) Evaluation of water demands for manufacturing processes, goods, and cooling.
- (c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.
- (d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.
- (e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use at facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

## Chapter 4 Agricultural Water Suppliers

### SECTION 10608.48

10608.48.(a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement all of the following critical efficient management practices:

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

- (6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.
  - (7) Construct and operate supplier spill and tailwater recovery systems.
  - (8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.
  - (9) Automate canal control structures.
  - (10) Facilitate or promote customer pump testing and evaluation.
  - (11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.
  - (12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:
    - (A) On-farm irrigation and drainage system evaluations.
    - (B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.
    - (C) Surface water, groundwater, and drainage water quantity and quality data.
    - (D) Agricultural water management educational programs and materials for farmers, staff, and the public.
  - (13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.
  - (14) Evaluate and improve the efficiencies of the supplier's pumps.
- (d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.
- (e) The data shall be reported using a standardized form developed pursuant to Section 10608.52.
- (f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

- (g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.
- (h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.
- (i)
  - (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).
  - (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

## **Chapter 5 Sustainable Water Management**

### **Section 10608.50**

- 10608.50.(a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:
- (1) Revisions to the requirements for urban and agricultural water management plans.
  - (2) Revisions to the requirements for integrated regional water management plans.
  - (3) Revisions to the eligibility for state water management grants and loans.

- (4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.
- (5) Increased funding for research, feasibility studies, and project construction.
- (6) Expanding technical and educational support for local land use and water management agencies.
- (b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

## **Chapter 6 Standardized Data Collection**

### **SECTION 10608.52**

- 10608.52.(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.
- (b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

## **Chapter 7 Funding Provisions**

### **Section 10608.56-10608.60**

- 10608.56.(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.
- (b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

- (c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.
  - (d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.
  - (e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.
  - (f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).
- 10608.60.(a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.
- (b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

## **Chapter 8 Quantifying Agricultural Water Use Efficiency**

### SECTION 10608.64

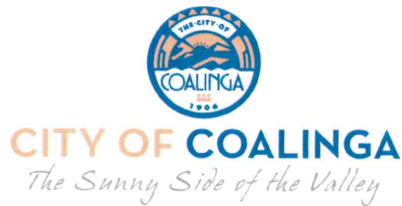
10608.64. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.



**APPENDIX C**  
**NOTIFICATION LETTER**

---

---



**Notice of Preparation**  
**City of Coalinga 2015 Urban Water Management Plan**

In accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10657), urban water suppliers are required to prepare an Urban Water Management Plan and update it every five years. The City of Coalinga (City) is preparing the 2015 UWMP for submission to the California Department of Water Resources (DWR).

We invite your participation in this process. A Draft of the 2015 UWMP will be made available for public review within the next few months. Public hearings will be scheduled sixty (60) days before adoption of the 2015 UWMP by the City council.

If you would like more information regarding the City of Coalinga 2015 UWMP please contact:

Sean Brewer  
Assistant City Manager  
City of Coalinga  
155 West Durian  
Coalinga, CA 93210  
e-mail: [sbrewer@coalinga.com](mailto:sbrewer@coalinga.com)

Sincerely,



Sean Brewer  
City of Coalinga



March 17, 2020

Westlands Water District  
Thomas W. Birmingham  
General Manager  
3130 N. Fresno Street  
P.O. Box 6056  
Fresno, CA 93703

**Subject: Notice of Preparation for City of Coalinga 2015 Urban Water Management Plan**

In accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10657), urban water suppliers are required to prepare an Urban Water Management Plan and update it every five years. The City of Coalinga (City) is preparing the 2015 UWMP for submission to the California Department of Water Resources (DWR).

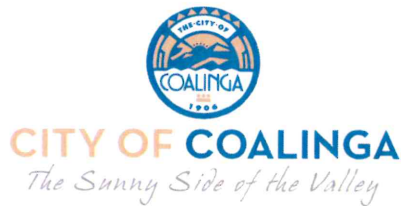
We invite your participation in this process. A Draft of the 2015 UWMP will be made available for public review within the next few months. Public hearings will be scheduled sixty (60) days before adoption of the 2015 UWMP by the City council.

If you would like more information regarding the City of Coalinga 2015 UWMP please contact:

Sean Brewer  
Assistant City Manager  
City of Coalinga  
155 West Durian  
Coalinga, CA 93210  
e-mail: [sbrewer@coalinga.com](mailto:sbrewer@coalinga.com)

Sincerely,

Sean Brewer  
City of Coalinga



March 17, 2020

U.S Bureau of Reclamation  
Michael P. Jackson, P.E.  
Area Manager  
South-Central California Area Office  
1243 N Street  
Fresno, CA 93727

**Subject: Notice of Preparation for City of Coalinga 2015 Urban Water Management Plan**

In accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10657), urban water suppliers are required to prepare an Urban Water Management Plan and update it every five years. The City of Coalinga (City) is preparing the 2015 UWMP for submission to the California Department of Water Resources (DWR).

We invite your participation in this process. A Draft of the 2015 UWMP will be made available for public review within the next few months. Public hearings will be scheduled sixty (60) days before adoption of the 2015 UWMP by the City council.

If you would like more information regarding the City of Coalinga 2015 UWMP please contact:

Sean Brewer  
Assistant City Manager  
City of Coalinga  
155 West Durian  
Coalinga, CA 93210  
e-mail: [sbrewer@coalinga.com](mailto:sbrewer@coalinga.com)

Sincerely,



Sean Brewer  
City of Coalinga



March 17, 2020

Coalinga-Huron Unified School District  
Lori Villanueva  
Superintendent  
657 Sunset St.  
Coalinga, CA 93210

**Subject: Notice of Preparation for City of Coalinga 2015 Urban Water Management Plan**

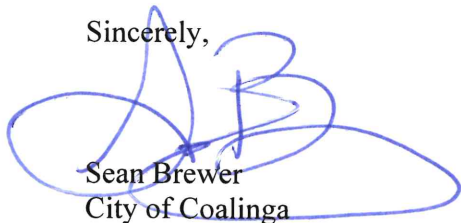
In accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10657), urban water suppliers are required to prepare an Urban Water Management Plan and update it every five years. The City of Coalinga (City) is preparing the 2015 UWMP for submission to the California Department of Water Resources (DWR).

We invite your participation in this process. A Draft of the 2015 UWMP will be made available for public review within the next few months. Public hearings will be scheduled sixty (60) days before adoption of the 2015 UWMP by the City council.

If you would like more information regarding the City of Coalinga 2015 UWMP please contact:

Sean Brewer  
Assistant City Manager  
City of Coalinga  
155 West Durian  
Coalinga, CA 93210  
e-mail: [sbrewer@coalinga.com](mailto:sbrewer@coalinga.com)

Sincerely,



Sean Brewer  
City of Coalinga





March 17, 2020

County of Fresno  
Bernard Jimenez  
Department of Public Works and Planning  
2220 Tulare Street  
Fresno, CA 93721

**Subject: Notice of Preparation for City of Coalinga 2015 Urban Water Management Plan**

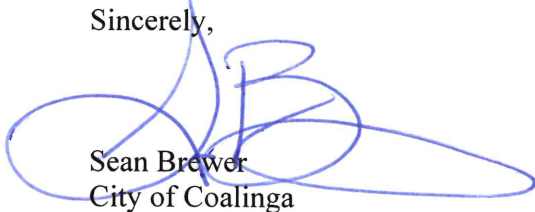
In accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10657), urban water suppliers are required to prepare an Urban Water Management Plan and update it every five years. The City of Coalinga (City) is preparing the 2015 UWMP for submission to the California Department of Water Resources (DWR).

We invite your participation in this process. A Draft of the 2015 UWMP will be made available for public review within the next few months. Public hearings will be scheduled sixty (60) days before adoption of the 2015 UWMP by the City council.

If you would like more information regarding the City of Coalinga 2015 UWMP please contact:

Sean Brewer  
Assistant City Manager  
City of Coalinga  
155 West Durian  
Coalinga, CA 93210  
e-mail: [sbrewer@coalinga.com](mailto:sbrewer@coalinga.com)

Sincerely,



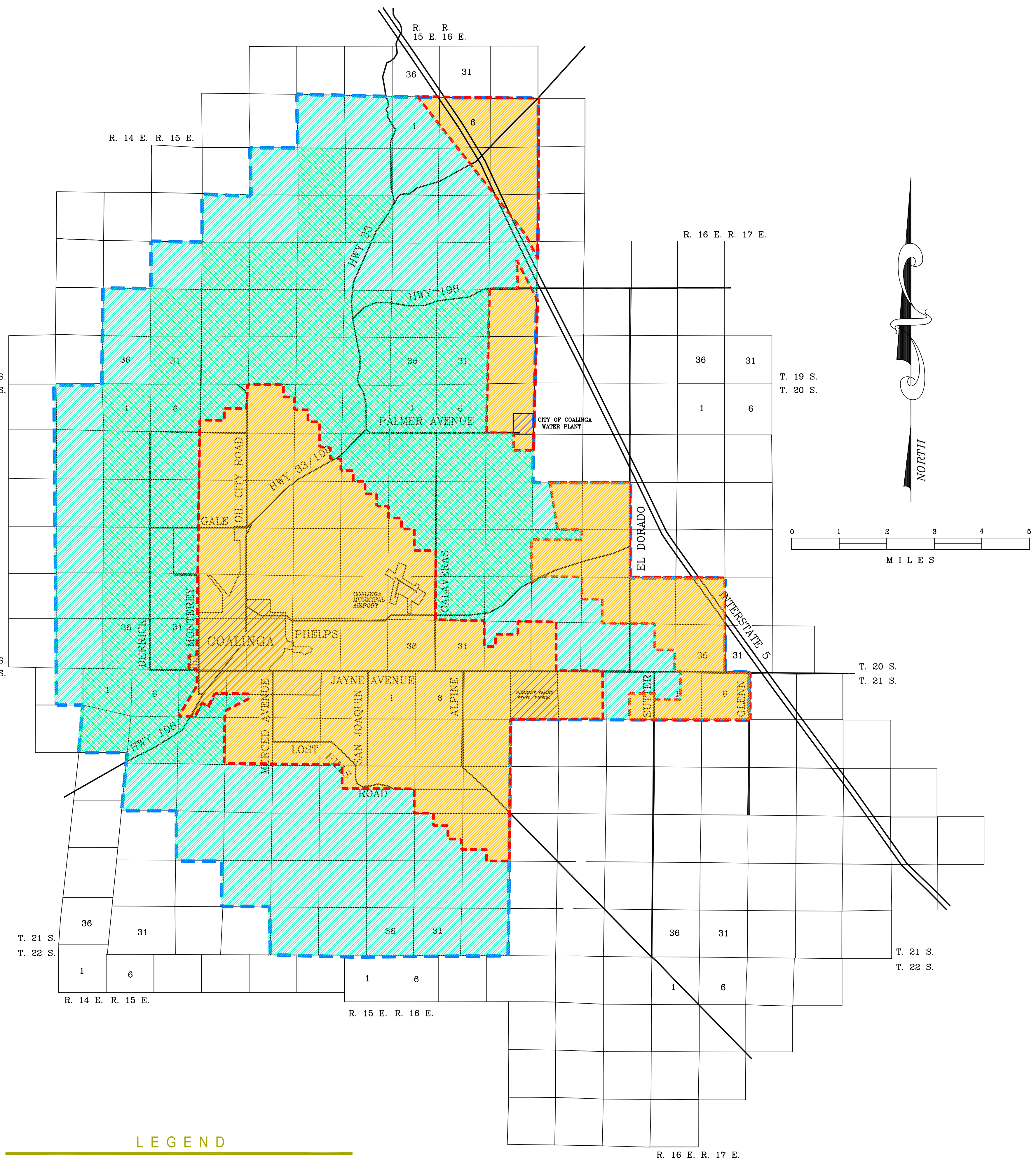
Sean Brewer  
City of Coalinga

**APPENDIX D**  
**SERVICE AREA MAP**

---

---





### LEGEND

- USBR CONSOLIDATED PLACE OF USE (POU) BOUNDARY
- WATER SERVICE AREA
- EXPANSION LANDS
- ENCROACHMENT LANDS
- CITY OF COALINGA DISTRICT BOUNDARY
- CITY LIMITS

CITY OF COALINGA  
WATER SERVICE AREA AND  
USBR CONSOLIDATED PLACE OF USE



**APPENDIX E**  
**SB X7-7 VERIFICATION FORM**

---

---

## SB X7-7 Verification Form Version FINAL.1

Table 4-C.4 has been modified from the FINAL version.

WUEdata Entry Exceptions	
The data from the tables below will not be entered into WUEdata tables (the tabs for these tables' worksheets are colored <b>purple</b> ). These tables will be submitted as separate uploads, in Excel, to WUEdata.	
<b>Process Water Deduction</b>	
SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D	A
supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE data tool, and include them in its UWMP.	
<b>Target Method 2</b>	
SB X7-7 tables 7-B, 7-C, and 7-D	
A supplier that selects Target Method 2 will contact DWR (gwen.huff@water.ca.gov) for SB X7-7 tables 7-B, 7-C, and 7-D.	
<b>Target Method 4</b>	
These tables are only available online at	
<a href="http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm">http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm</a>	A supplier
that selects Target Method 4 will save the tables from the website listed above, complete the tables, submit as a separate upload to WUE data, and include them with its UWMP.	

**SB X7-7 Table 0: Units of Measure Used in UWMP\***

*(select one from the drop down list)*

Million Gallons

*\*The unit of measure must be consistent with Table 2-3*

NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	1,942	Million Gallons
	2008 total volume of delivered recycled water	-	Million Gallons
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period <sup>1, 2</sup>	10	Years
	Year beginning baseline period range	2001	
	Year ending baseline period range <sup>3</sup>	2010	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2006	
	Year ending baseline period range <sup>4</sup>	2010	
<sup>1</sup> If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. <sup>2</sup> The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.			
<sup>3</sup> The ending year must be between December 31, 2004 and December 31, 2010.			
<sup>4</sup> The ending year must be between December 31, 2007 and December 31, 2010.			
NOTES:			

**SB X7-7 Table 2: Method for Population Estimates**

**Method Used to Determine Population**  
(may check more than one)

**1. Department of Finance (DOF)**

DOF Table E-8 (1990 - 2000) and (2000-2010) and  
DOF Table E-5 (2011 - 2015) when available

**2. Persons-per-Connection Method****3. DWR Population Tool****4. Other**

DWR recommends pre-review

NOTES:

**SB X7-7 Table 3: Service Area Population**

Year		Population
10 to 15 Year Baseline Population		
Year 1	2001	19,094
Year 2	2002	19,287
Year 3	2003	19,574
Year 4	2004	19,991
Year 5	2005	21,297
Year 6	2006	22,352
Year 7	2007	23,713
Year 8	2008	24,187
Year 9	2009	24,118
Year 10	2010	24,270
<i>Year 11</i>		
<i>Year 12</i>		
<i>Year 13</i>		
<i>Year 14</i>		
<i>Year 15</i>		
5 Year Baseline Population		
Year 1	2006	22,352
Year 2	2007	23,713
Year 3	2008	24,187
Year 4	2009	24,118
Year 5	2010	24,270
2015 Compliance Year Population		
<b>2015</b>		25,128
NOTES:		

**SB X7-7 Table 4: Annual Gross Water Use \***

Baseline Year <i>Fm SB X7-7 Table 3</i>		Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>	
10 to 15 Year Baseline - Gross Water Use								
Year 1	2001	1,553	-	-	-	-	-	1,553
Year 2	2002	1,548	-	-	-	-	-	1,548
Year 3	2003	1,571	-	-	-	-	-	1,571
Year 4	2004	1,747	-	-	-	-	-	1,747
Year 5	2005	1,708	-	-	-	-	-	1,708
Year 6	2006	1,782	-	-	-	-	-	1,782
Year 7	2007	1,986	-	-	-	-	-	1,986
Year 8	2008	1,942	-	-	-	-	-	1,942
Year 9	2009	1,826	-	-	-	-	-	1,826
Year 10	2010	1,748	-	-	-	-	-	1,748
Year 11	-	-	-	-	-	-	-	-
Year 12	-	-	-	-	-	-	-	-
Year 13	-	-	-	-	-	-	-	-
Year 14	-	-	-	-	-	-	-	-
Year 15	-	-	-	-	-	-	-	-
10 - 15 year baseline average gross water use								1,741
5 Year Baseline - Gross Water Use								
Year 1	2006	1,782	-	-	-	-	-	1,782
Year 2	2007	1,986	-	-	-	-	-	1,986
Year 3	2008	1,942	-	-	-	-	-	1,942
Year 4	2009	1,826	-	-	-	-	-	1,826
Year 5	2010	1,748	-	-	-	-	-	1,748
5 year baseline average gross water use								1,857
2015 Compliance Year - Gross Water Use								
2015		1,687	-	-	-	-	-	1,687
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3								
NOTES:								

**SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction** *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year Fm SB X7-7 Table 3		Surface Reservoir Augmentation				Groundwater Recharge				Total Deductible Volume of Indirect Recycled Water Entering the Distribution System
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	2001	-	-	-	-	-	-	-	-	-
Year 2	2004	-	-	-	-	-	-	-	-	-
Year 3	2005	-	-	-	-	-	-	-	-	-
Year 4	2006	-	-	-	-	-	-	-	-	-
Year 5	2007	-	-	-	-	-	-	-	-	-
Year 6	2008	-	-	-	-	-	-	-	-	-
Year 7	2009	-	-	-	-	-	-	-	-	-
Year 8	2010	-	-	-	-	-	-	-	-	-
Year 9	#REF!	-	-	-	-	-	-	-	-	-
Year 10	#REF!	-	-	-	-	-	-	-	-	-
Year 11	0			-	-	-			-	-
Year 12	0			-	-	-			-	-
Year 13	0			-	-	-			-	-
Year 14	0			-	-	-			-	-
Year 15	0			-	-	-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2006	-	-	-	-	-	-	-	-	-
Year 2	2007	-	-	-	-	-	-	-	-	-
Year 3	2008	-	-	-	-	-	-	-	-	-
Year 4	2009	-	-	-	-	-	-	-	-	-
Year 5	2010	-	-	-	-	-	-	-	-	-
2015 Compliance - Indirect Recycled Water Use										
2015		-	-	-	-	-	-	-	-	-
*Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.										
NOTES:										



**SB X7-7 Table 4-C: Process Water Deduction Eligibility**

*(For use only by agencies that are deducting process water) Choose Only One*

<input type="checkbox"/>	<b>Criteria 1-</b> Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
<input type="checkbox"/>	<b>Criteria 2</b> - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
<input type="checkbox"/>	<b>Criteria 3</b> - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
<input checked="" type="checkbox"/>	<b>Criteria 4</b> - Disadvantaged Community. Complete SB x7-7 Table 4-C.4

NOTES:

## SB X7-7 Table 4-C.1: Process Water Deduction Eligibility

### Criteria 1

Industrial water use is equal to or greater than 12% of gross water use

Baseline Year <i>Fm SB X7-7 Table 3</i>		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	Eligible for Exclusion Y/N
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	2001	1,553		0%	NO
Year 2	2004	1,747		0%	NO
Year 3	2005	1,708		0%	NO
Year 4	2006	1,782		0%	NO
Year 5	2007	1,986		0%	NO
Year 6	2008	1,942		0%	NO
Year 7	2009	1,826		0%	NO
Year 8	2010	1,748		0%	NO
Year 9	#REF!	#REF!			NO
Year 10	#REF!	#REF!			NO
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2006	1,782		0%	NO
Year 2	2007	1,986		0%	NO
Year 3	2008	1,942		0%	NO
Year 4	2009	1,826		0%	NO
Year 5	2010	1,748		0%	NO
2015 Compliance Year - Process Water Deduction Eligibility					
<b>2015</b>		1,687		0%	NO
NOTES:					

**SB X7-7 Table 4-C.2: Process Water Deduction Eligibility**
**Criteria 2**

Industrial water use is equal to or greater than 15 GPCD

Baseline Year <i>Fm SB X7-7 Table 3</i>	Industrial Water Use	Population	Industrial GPCD	Eligible for Exclusion Y/N
10 to 15 Year Baseline - Process Water Deduction Eligibility				
Year 1	2001		19,574	- NO
Year 2	2004		19,991	- NO
Year 3	2005		21,297	- NO
Year 4	2006		22,352	- NO
Year 5	2007		23,713	- NO
Year 6	2008		24,187	- NO
Year 7	2009		24,118	- NO
Year 8	2010		24,270	- NO
Year 9	#REF!		#REF!	NO
Year 10	#REF!		#REF!	NO
<i>Year 11</i>	0		-	NO
<i>Year 12</i>	0		-	NO
<i>Year 13</i>	0		-	NO
<i>Year 14</i>	0		-	NO
<i>Year 15</i>	0		-	NO
5 Year Baseline - Process Water Deduction Eligibility				
Year 1	2006		22,352	- NO
Year 2	2007		23,713	- NO
Year 3	2008		24,187	- NO
Year 4	2009		24,118	- NO
Year 5	2010		24,270	- NO
2015 Compliance Year - Process Water Deduction Eligibility				
<b>2015</b>		25,128	-	NO
NOTES:				

**SB X7-7 Table 4-C.3: Process Water Deduction Eligibility**
**Criteria 3**

Non-industrial use is equal to or less than 120 GPCD

Baseline Year <i>Fm SB X7-7 Table 3</i>	Gross Water Use Without Process Water Deduction <i>Fm SB X7-7 Table 4</i>	Industrial Water Use	Non-industrial Water Use	Population <i>Fm SB X7-7 Table 3</i>	Non-Industrial GPCD	Eligible for Exclusion Y/N
--	--	----------------------	--------------------------	---	---------------------	-------------------------------

**10 to 15 Year Baseline - Process Water Deduction Eligibility**

Year 1	2001	1,553		1,553	19,574	217	NO
Year 2	2004	1,747		1,747	19,991	239	NO
Year 3	2005	1,708		1,708	21,297	220	NO
Year 4	2006	1,782		1,782	22,352	218	NO
Year 5	2007	1,986		1,986	23,713	229	NO
Year 6	2008	1,942		1,942	24,187	220	NO
Year 7	2009	1,826		1,826	24,118	207	NO
Year 8	2010	1,748		1,748	24,270	197	NO
Year 9	#REF!	#REF!		#REF!	#REF!		NO
Year 10	#REF!	#REF!		#REF!	#REF!		NO
Year 11	0	-		-	-		NO
Year 12	0	-		-	-		NO
Year 13	0	-		-	-		NO
Year 14	0	-		-	-		NO
Year 15	0	-		-	-		NO

**5 Year Baseline - Process Water Deduction Eligibility**

Year 1	2006	1,782		1,782	22,352	218	NO
Year 2	2007	1,986		1,986	23,713	229	NO
Year 3	2008	1,942		1,942	24,187	220	NO
Year 4	2009	1,826		1,826	24,118	207	NO
Year 5	2010	1,748		1,748	24,270	197	NO

**2015 Compliance Year - Process Water Deduction Eligibility**

<b>2015</b>		1,687		1,687	25,128	184	NO
-------------	--	-------	--	-------	--------	-----	----

NOTES:

**SB X7-7 Table 4-C.4: Process Water Deduction Eligibility****Criteria 4**

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

**SELECT ONE**

"Disadvantaged Community" status was determined using one of the methods listed below:

**1. IRWM DAC Mapping tool**

[http://www.water.ca.gov/irwm/grants/resources\\_dac.cfm](http://www.water.ca.gov/irwm/grants/resources_dac.cfm)

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

**2. 2010 Median Income**

California Median  
Household Income

Service Area  
Median Household  
Income

Percentage of  
Statewide  
Average

**Eligible for  
Exclusion?  
Y/N**

**2015 Compliance Year - Process Water Deduction Eligibility**

2010

\$60,883

\$43,099

71%

YES

NOTES:

**SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)**

<b>Baseline Year</b> <i>Fm SB X7-7 Table 3</i>	<b>Service Area Population</b> <i>Fm SB X7-7 Table 3</i>	<b>Annual Gross Water Use</b> <i>Fm SB X7-7 Table 4</i>	<b>Daily Per Capita Water Use (GPCD)</b>
---	---	--	--

**10 to 15 Year Baseline GPCD**

Year 1	2001	19,094	1,553	223
Year 2	2002	19,287	1,548	220
Year 3	2003	19,574	1,571	220
Year 4	2004	19,991	1,747	239
Year 5	2005	21,297	1,708	220
Year 6	2006	22,352	1,782	218
Year 7	2007	23,713	1,986	229
Year 8	2008	24,187	1,942	220
Year 9	2009	24,118	1,826	207
Year 10	2010	24,270	1,748	197
<i>Year 11</i>	0	-	-	
<i>Year 12</i>	0	-	-	
<i>Year 13</i>	0	-	-	
<i>Year 14</i>	0	-	-	
<i>Year 15</i>	0	-	-	

<b>10-15 Year Average Baseline GPCD</b>	<b>219</b>
---	------------

**5 Year Baseline GPCD**

Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2006	22,352	1,782	218
Year 2	2007	23,713	1,986	229
Year 3	2008	24,187	1,942	220
Year 4	2009	24,118	1,826	207
Year 5	2010	24,270	1,748	197

<b>5 Year Average Baseline GPCD</b>	<b>215</b>
-------------------------------------	------------

**2015 Compliance Year GPCD**

<b>2015</b>	25,128	1,687	<b>184</b>
-------------	--------	-------	------------

NOTES:

**SB X7-7 Table 6: Gallons per Capita per Day***Summary From Table SB X7-7 Table 5*

10-15 Year Baseline GPCD	219
5 Year Baseline GPCD	215
2015 Compliance Year GPCD	184

NOTES:

**SB X7-7 Table 7: 2020 Target Method***Select Only One*

Target Method		Supporting Documentation
<input checked="" type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
<input type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator

NOTES:



**SB X7-7 Table 7-A: Target Method 1**  
20% Reduction

10-15 Year Baseline GPCD	2020 Target GPCD
219	176

NOTES:

SB X7-7 Table 7-B: Target Method 2 Landscape Water Use	Target
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or <a href="mailto:gwen.huff@water.ca.gov">gwen.huff@water.ca.gov</a>	

**SB X7-7 Table 7-C: Target Method 2**

**Target CII Water Use**

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or [gwen.huff@water.ca.gov](mailto:gwen.huff@water.ca.gov)

**SB X7-7 Table 7-D: Target Method 2 Summary**

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or [gwen.huff@water.ca.gov](mailto:gwen.huff@water.ca.gov)

**SB X7-7 Table 7-E: Target Method 3**

Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
<input type="checkbox"/>		North Coast	137	130
<input type="checkbox"/>		North Lahontan	173	164
<input type="checkbox"/>		Sacramento River	176	167
<input type="checkbox"/>		San Francisco Bay	131	124
<input checked="" type="checkbox"/>	100%	San Joaquin River	174	165
<input type="checkbox"/>		Central Coast	123	117
<input type="checkbox"/>		Tulare Lake	188	179
<input type="checkbox"/>		South Lahontan	170	162
<input type="checkbox"/>		South Coast	149	142
<input type="checkbox"/>		Colorado River	211	200
<b>Target</b> <i>(If more than one region is selected, this value is calculated.)</i>				<b>165</b>
NOTES: <div></div>				

**SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target**

5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target <sup>1</sup>	Calculated 2020 Target <sup>2</sup>	<b>Confirmed 2020 Target</b>
215	204	176	<b>176</b>

<sup>1</sup> Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.

<sup>2</sup> 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES:

**SB X7-7 Table 8: 2015 Interim Target GPCD**

Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	<b>2015 Interim Target GPCD</b>
176	219	<b>198</b>

NOTES:

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments <i>(in GPCD)</i>					2015 GPCD <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015?
		Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD		
		Extraordinary Events	Weather Normalization	Economic Adjustment				
184	198	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	-	184	184	YES

NOTES:



**APPENDIX F**  
**GROUNDWATER BULLETIN 118**

---

## **San Joaquin Valley Groundwater Basin Pleasant Valley Subbasin**

- Groundwater Basin Number: 5-22.10
- County: Fresno, Kings
- Surface Area: 146,000 acres (227 square miles)

### **Basin Boundaries and Hydrology**

The San Joaquin Valley is surrounded on the west by the Coast Ranges, on the south by the San Emigdio and Tehachapi Mountains, on the east by the Sierra Nevada and on the north by the Sacramento-San Joaquin Delta and Sacramento Valley. The northern portion of the San Joaquin valley drains toward the Delta by the San Joaquin River and its tributaries, the Fresno, Merced, Tuolumne, and Stanislaus Rivers. The southern portion of the valley is internally drained by the Kings, Kaweah, Tule, and Kern Rivers that flow into the Tulare drainage basin including, the beds of the former Tulare, Buena Vista, and Kern Lakes.

The Pleasant Valley subbasin lies along the west side of the San Joaquin Valley, north of the Kings-Kern County line. It straddles the Fresno-Kings County Line. The subbasin is surrounded throughout most of its perimeter by Tertiary continental and marine sediments of the Coast Ranges and west flank of the Kettleman Hills. The subbasin includes the older and younger alluvium of the San Joaquin Valley. The eastern boundary of the subbasin abuts the Westside and Tulare Lake subbasins. The southern boundary abuts the Kern County subbasin. These subbasin boundaries have been derived from both hydrologic and political criteria. Several small, ephemeral streams enter the basin from the surrounding mountains; these streams include Los Gatos, Warthan, Jacalitos, Avenal, and Zapato Chino Creeks. Average precipitation values range from 7 in. for a majority of the basin with 9 in. along the western margin

### **Hydrogeologic Information**

The San Joaquin Valley represents the southern portion of the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains, respectively.

Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is below to slightly west of the series of rivers, lakes, sloughs, and marshes which mark the current and historic axis of surface drainage in the San Joaquin Valley.

### ***Water Bearing Formations***

Geologic units comprising the Pleasant Valley subbasin include Holocene alluvium, the Plio-Pleistocene Tulare Formation, and possibly the upper part of the San Joaquin Formation. Specific yield is estimated to be 8.4 percent for the subbasin from DWR, San Joaquin District internal data. Williamson, Prudic, and Swain (1989) estimated water in storage in Pleasant Valley using a specific yield of 9.9 percent. For a study in Pleasant Valley WD, Summers

Engineering, Inc. (1986) estimated the specific yield at 10.3 percent. In another study for Pleasant Valley WD, Kenneth D. Schmidt and Associates (2000) estimated the average specific yield of deposits below the water table at 10 percent.

**Holocene Alluvium.** The alluvium consists of highly lenticular deposits of poorly sorted clay, silt, and sand with occasional interbeds of well-sorted fine-to-medium-grained sand. The thickness is unknown, but it is doubtful that it is more than 300 feet.

**Plio-Pleistocene Tulare Formation.** The alluvium consists of highly lenticular deposits of poorly sorted clay, silt, and sand with occasional interbeds of well-sorted fine-to-medium-grained sand. The thickness is unknown, but it is doubtful that it is more than 300 feet.

**San Joaquin Formation.** The San Joaquin Formation consists of unfossiliferous silt and clay beds alternating with beds of sandstone and conglomerate and contains marine, brackish water and nonmarine fossils (Kahanovit and Manning 1954).

### ***Recharge Areas***

Groundwater recharge is primary from seepage from the various streams that cross the subbasin. The cities of Coalinga, in the northern portion of the subbasin, and Avenal, near the longitudinal midpoint, import water for municipal purposes. The state prisons near Coalinga and Avenal also use imported water. Additional recharge may occur as a consequence of this water use.

### ***Groundwater Level Trends***

Summers Engineering, Inc. (1986) calculated the rate of water level decline between the mid-1960s and early 1980s in Pleasant Valley WD as 4.8 feet per year. Schmidt (2000) estimated the annual decline for the previous four decades at approximately 4 feet per year. The slower decline was attributed to recent reductions in groundwater pumping. In the past decade water levels have generally continued their long historic decline, with hydrographs on file with DWR indicating water level changes of -5 to -25 feet. Localized areas however have shown some rebound from 1995 to 2001.

### ***Groundwater Storage***

As part of this Bulletin 118 update, the total subbasin storage capacity is estimated to be 14,100,000 af. This assumes an average thickness of 1,150 feet (base of fresh water), a specific yield of 8.4 percent, and an area of 146,000 acres. Williamson, Prudic and Swain (1989) estimated the volume of water in storage to a maximum depth of 1,000 feet and a groundwater elevation in 1961 with a specific yield of 9.9 percent to be 4,000,000 af.

### ***Groundwater Budget (Type B)***

The budget presented below is based on data collected as part of DWR's Bulletin 160 preparation. The basis for calculations include a 1990 normalized year and land and water use data, with subsequent analysis by a DWR water budget spreadsheet to estimate overall applied water demands,

agricultural groundwater pumpage, urban pumping demand and other extraction data. No data for subsurface inflow or outflow exists. Applied water recharge is estimated at 4,000 af per year, there is no known artificial recharge, and natural recharge has not been determined. Estimated extractions include urban pumping at 5,700 af per year, agricultural pumping at 90,000 af per year, and oil industry related extractions 8,830 af per year.

### **Groundwater Quality**

Schmidt (2000) estimated the TDS of groundwater in Pleasant Valley WD ranged from 1,000 to 3,000 mg/L with an average of 1,500 mg/L. The constituents in groundwater include calcium, magnesium, sodium, bicarbonates, chlorides, sulfates, and boron. The high TDS concentrations limit the usability of groundwater in the subbasin for most uses.

### **Well Characteristics**

	<b>Well yields (gal/min)</b>	
Municipal/Irrigation	Range: 35-3,300 (DWR unpublished data)	
	<b>Total depths (ft)</b>	
Domestic	Range: Not Determined	Average: Not Determined
Municipal/Irrigation	Range: 300-1,760	Average: 1,000 (DWR unpublished data and Pleasant Valley Water District)

### **Active Monitoring Data**

<b>Agency</b>	<b>Parameter</b>	<b>Number of wells /measurement frequency</b>	
DWR and cooperators	Groundwater levels	151	Semi-annually
Department of Health Services and cooperators	Title 22 water quality	2	Varies

### **Basin Management**

Groundwater management:	The County of Fresno adopted in 2000 an ordinance, which includes a permit process for groundwater transfers. Pleasant Valley Water District adopted a groundwater management plan on May 9, 2000 and is currently working on an update of the plan.		
Water agencies			
Public	Pleasant Valley Water District, City of Coalinga, Devil's Den WD, Green Valley WD		
Private			

## References Cited

- California Department of Water Resources. 1994. Bulletin 160-93, "*California Water Plan Update, Vol. I.*"
- \_\_\_\_\_. San Joaquin District. Well completion report files.
- \_\_\_\_\_. San Joaquin District. Unpublished Land and Water Use Data.
- \_\_\_\_\_. San Joaquin District. Unpublished groundwater elevation data.
- \_\_\_\_\_. San Joaquin District. 1995. Internal computer spreadsheet for 1990 normal computation of net water demand used in preparation of DWR Bulletin 160-93.
- Kahanovitz, Y., and Manning, J.C. 1954. "*Ground-Water Hydrology of Pleasant Valley, Fresno County, California,*" Stanford University Publications University Series Geological Sciences, Volume IV.
- Pleasant Valley WD. 2001. Written communication 2-28-01.
- Schmidt, K.D. and Associates. 2000. "*Hydrogeologic Evaluation of Potential for Recharge and Water Banking in the Pleasant Valley Water District;* consultant report for the Pleasant Valley Water District, 15 p.
- Summers Engineering, Inc. 1986. *Pleasant Valley Water District, Coalinga, California Factual Report, April 1986;* consultant report for the Pleasant Valley Water District, 24p.
- Williamson, A.K., Prudic, D.E., and Swain, L.A. 1989. *Ground-Water Flow in the Central Valley, California:* US Geological Survey Professional Paper 1401-D, 127 p.

## Additional References

- California Department of Water Resources. 1980. Bulletin 118-80, "*Ground Water Basins in California.*"
- \_\_\_\_\_. San Joaquin District. 2000. *Spring 1999, Lines of Equal Elevation of Water in Wells, unconfined Aquifer*, 1,253,440 scale map sheet.
- \_\_\_\_\_. 1961. "*Water Quality Investigation - Proposed Pleasant Valley Water Storage District*", San Joaquin District Office Report.
- \_\_\_\_\_. 1956. "*Geologic and Waste Disposal Investigation, Pleasant Valley Oil Field, Fresno County, Project No. 56-5-5,*" San Joaquin District Office Report.
- Hydrodevelopment, Inc. 1969. *An Evaluation of Ground Water Quality in Deep Aquifers Beneath Pleasant Valley, Fresno County, California;* private consultant report prepared for Standard Oil Company of California.
- Wood, P.R. and Davis, G.H. 1959. Ground Water Conditions in the Avenal-McKittrick Area, Kings and Kern Counties, California; U.S. Geological Survey Water Supply Paper 1457, 141 p.

## Errata

Updated groundwater management information. (1/20/06)

**APPENDIX G**  
**WATER CONSERVATION ORDINANCE**

---

---

## CHAPTER 4C. - WATER CONSERVATION

### Sec. 6-4C.01. - Findings of necessity.

It is necessary to minimize the potential for water shortage through the practice of water conservation pursuant to the provisions of California Water Code § 375 et seq. It is further necessary to reduce the potential effect of a water shortage on the residents, businesses and visitors of Coalinga and to adopt provisions that will significantly reduce the inefficient consumption of water, thereby extending the available water resources necessary for the domestic, sanitation, and fire protection of the community to the greatest extent possible. Nothing in this chapter shall prevent the City from also declaring a water emergency pursuant to California Water Code Section 350, if circumstances warrant such a declaration.

(Ord. No. 746, § 1, eff. March 19, 2009)

### Sec. 6-4C.02. - Water Customer.

Water customer for the purposes of this chapter, shall mean any person, partnership, business, corporation, special district, public agency, or association or legal entity to which the City of Coalinga (City) supplies water or "user" of water supplied by the City as defined in Subsection 6-4.01(s).

(Ord. No. 746, § 1, eff. March 19, 2009)

### Sec. 6-4C.03. - Application.

This chapter shall be applicable to all water customers.

(Ord. No. 746, § 1, eff. March 19, 2009)

### Sec. 6-4C.04. - Exceptions and exemptions.

- (a) *Exceptions:* The City Manager or his or her designee shall grant an exception from the requirements of this chapter for any of the following reasons:
- (1) Water use is necessary to public health and safety or for essential government services; or
  - (2) Recycled water is being used; or
  - (3) Water use is necessary due to the medical needs of the water customer.
  - (4) An alternative water source/supply is available for use.
- (b) *Exemptions:* The City Council may grant an exemption to the requirements of this chapter, with or without conditions, if it determines that a water customer would otherwise experience extreme financial hardship that cannot be mitigated. The City Council shall review any requests for an exemption from compliance with this chapter. A written request for an exemption must be submitted to the City Clerk a minimum of two (2) weeks prior to the regularly scheduled Council meeting at which the exemption is to be considered. If appropriate, the City Council may require the customer granted an exemption to reduce water use by other appropriate alternative methods. Notwithstanding any other provision of this Code, there shall be no right to further administrative review or appeal of the determination of exemption of the City Council. The City Council may establish an "exemption processing fee" by resolution.

(Ord. No. 746, § 1, eff. March 19, 2009)

#### Sec. 6-4C.05. - Authorization

The City Council may declare the conservation stage based on a determination made by the City Manager in conjunction with the Chief Plant Operator of the water treatment plant, or based upon any interruption in water supply or delivery that the City Council determines in its sole discretion necessitates water conservation pursuant to this chapter. The City Council may determine and order water prohibitions and restrictions as outlined herein in the three (3) stages:

Stage 1. Standard Conservation Alert

Stage 2. High Conservation Alert

Stage 3. Emergency Conservation Alert

(Ord. No. 746, § 1, eff. March 19, 2009)

#### Sec. 6-4C.06. - Stage I Prohibitions and restrictions—Standard conservation alert.

The following restrictions shall be applicable throughout the year unless the City Council determines that an increased conservation effort shall be implemented (stage 2 or 3):

- (a) There shall be no hose washing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas.
- (b) No water shall be used to clean, fill, operate or maintain levels in decorative fountains unless such water is part of a recirculation system.
- (c) No water customer shall permit water to leak on his or her premises. Such leak shall be repaired in a timely manner after written notification by the City, but in no case in excess of seventy-two (72) hours after notification.
- (d) Designated times and days of irrigation:
  - (1) No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas between the hours of 10:00 a.m. and 6:00 p.m. This provision shall not apply to equestrian and livestock businesses, dairies, nurseries, athletic fields, golf courses, or other water dependent industries.
  - (2) The use of a hand held hose with a shut-off valve shall be permitted at any time.
- (e) The use of water from fire hydrants shall be limited to fire fighting and related activities necessary to maintain the public health, safety, and welfare. An exception may be made for construction use through a proper city-designated meter where recycled water is not available.

(Ord. No. 746, § 1, eff. March 19, 2009; Ord. No. 750, § 1, eff. 9-6-2009; [Ord. No. 801, § 1, eff. 6-17-2017](#).)

#### Sec. 6-4C.07. - Stage II Prohibitions and restrictions—High water conservation alert.

The following restrictions shall be applicable during a high water conservation alert as declared by the City Council and whenever a recommendation has been made by the City Manager in conjunction with the Chief Plant Operator of the water treatment plant based upon a significant reduction or interruption in water supply or delivery that necessitates increased water conservation efforts:

- (a) All prohibitions and restrictions in Stage I shall be in effect.
- (b) Commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from watering lawn, landscape, or other turf areas more than every other day. Irrigation shall



occur between the hours of 6:00 p.m. and 6:00 a.m. only, with the exception of usage of recycled water.

(c) Designated times and days of irrigation:

- (1) No water customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas on between the hours of 9:00 a.m. and 6:00 p.m. This provision shall not apply to equestrian and livestock businesses, dairies, nurseries, golf courses, or other water-dependent industries.
- (2) Residential addresses ending in an even number may use water on Tuesday, and Friday. Residential addresses ending in an odd numbers and nonresidential (irrespective of address) may use water on Wednesday and Saturday.
- (3) No irrigation shall occur on Sundays, Mondays and Thursdays.
- (d) Swimming pool refilling or new construction swimming pool filling shall not occur without permission from the City Manager or his or her designee. The replenishment of swimming pools shall be limited to the same days as set forth in subsections (a) through (c) above for outdoor use of water.
- (e) No restaurants or other public place which serves food shall serve drinking water to any customer unless expressly requested by the customer.

(Ord. No. 746, § 1, eff. March 19, 2009)

Sec. 6-4C.08. - Stage III Prohibitions and restrictions—Emergency water conservation alert.

In the event of a major earthquake, large-scale fire, or other so called "act of nature" which has or could have serious impacts on the city's total available water storage or delivery capacity, whether storage capacities have been reduced or not, or in the case of an unanticipated significant reduction in City water supply, an emergency water conservation alert shall be declared by the City Council.

- (a) All previous restrictions noted above in Stage I and Stage II shall be in effect.
- (b) There shall be no outdoor use of water at any time except the minimal amount by handheld hose equipped with a shut-off nozzle.
- (c) Commercial nurseries, golf courses, and other water-dependent industries shall be prohibited from the outdoor use of water except by a hand-held hose equipped with a shut-off nozzle.
- (d) All nonessential uses of water shall be prohibited including the filling, or refilling of swimming pools, spas, jacuzzis, or other like devices beyond what is necessary for maintenance.

(Ord. No. 746, § 1, eff. March 19, 2009)

Sec. 6-4C.09. - Penalties.

- (a) No water customer of the City shall knowingly use, or permit the use of, water in a manner contrary to any provisions of this chapter, or in an amount in excess of that use permitted by the provisions of this chapter.
- (b) Unless otherwise provided, any water customer violating any provision of this chapter shall be guilty of an infraction, and each day or portion thereof such violation is in existence shall be a new and separate offense.
- (c) Any water customer determined to be guilty of a first time violation shall be given a written reminder for compliance. Second and subsequent violations shall be punishable as follows:

- (1) For a second violation during any period of declared water conservation alert: As an infraction, punishable by a fine of not more than fifty dollars (\$50.00).
  - (2) For a third violation during any period of declared water conservation alert: As an infraction, punishable by a fine not more than one hundred dollars (\$100.00).
  - (3) For a fourth violation during any period of declared water conservation alert: As an infraction, punishable by a fine not more than two hundred fifty dollars (\$250.00), and placement of a flow restrictor. In addition, the City may discontinue water services.
- (d) Notwithstanding the above, the City Attorney or Deputy City Attorney may charge and prosecute second and subsequent offenses as misdemeanors at the City's sole discretion pursuant to California Water Code § 377. In addition to the above penalties, the City may file an action for civil abatement and, at the discretion of the court, be entitled to reimbursement for all necessary costs and Attorneys fees incurred through investigation, discovery, analysis, inspection, abatement and other actual costs incurred by the City or its agents pertaining to the violation.
- (e) The court shall fix the amount of any such reimbursements upon submission of proof of such costs by the City. Payment of any penalty provided in this section shall not relieve a person, firm or corporation, or other entity from the responsibility of correcting the condition resulting from the violation.
- (f) In addition to the above remedies, the City Manager or his or her designee is empowered, to enforce any or all of the following penalties:
- (1) Place a flow restricting device upon the water service;
  - (2) Lock off of a water meter;
  - (3) Remove a water meter;
  - (4) Shut off the service connection.
- (g) All costs or expenses incurred by the City for enforcement of this section shall be borne by the water customer. No water service shall be limited or discontinued until the City Manager or his or her designee provides a written notice of intent to so limit or discontinue such service and the reasons for such decision, and further, provides such water customer notice of the right to request an administrative review and hearing pursuant to the procedures set forth in Section 6-4.26 of this Code, except that any reference to "citation" in that section shall instead be deemed a reference to a "notice of intent" as described in this section. A written notice of intent shall be provided either by first class mail, by personal service on the water customer, or by posting said notice in a conspicuous place on the property wherein the violation occurred. Notwithstanding any other provision of this Code, there shall be no right to further administrative review or appeal.

(Ord. No. 746, § 1, eff. March 19, 2009)

#### Sec. 6-4C.10. - Compliance.

The City Code Enforcement Officer and designee from the Community Development Department shall enforce the provisions of this chapter.

(Ord. No. 746, § 1, eff. March 19, 2009)

#### Sec. 6-4C.11. - Drought and water shortage regulations.

Notwithstanding anything to the contrary in this chapter, and in addition to anything set forth in this chapter, during any declared State of Emergency by the State or City related to drought or potable water conditions that mandate water conservation in the City, State or Federal regulations that mandate water conservation in the City, or during local water shortages, the City Council may by resolution adopt

additional water restrictions, including mandatory water usage limits, and impose penalties on the customer for violations of those additional restrictions. The penalties shall be added to the customer's account. A violation of the additional restrictions shall also be deemed a violation of the Municipal Code.

( [Ord. No. 780, § 2](#), eff. 5-7-2015; [Ord. No. 781, § 1](#), eff. 6-6-2015)

## **APPENDIX H**

### **WATER RATE STRUCTURE**

---

**RESOLUTION NO. 3645**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COALINGA  
APPROVING NEW WATER RATES EFFECTIVE JULY 1, 2014 TO ADDRESS  
DROUGHT IMPACTS TO THE WATER FUND**

WHEREAS, Coalinga Municipal Code Section 6-4.20 provides for the establishment of water service rates by Resolution of the City Council; and

WHEREAS, the City Council of the City of Coalinga discussed Water Fund revenue impacts as a result of a 50% reduction in the Water Year 14-15 delivery schedule from the City's water supplier the U. S. Department of Interior Bureau of Reclamation to a historic and the lowest water delivery recorded at 3,258 acre-feet; and

WHEREAS, the City Council of the City of Coalinga enacted Stage 2 of 3 of its Water Conservation Ordinance in an attempt to curtail water use by water customers; and

WHEREAS, the most current water rate model prepared in 2011, the basis for current water rates, could not have contemplated such a low and historic water supply during Water Year 14-15, and therefore the current water rate model combined with ongoing drought conditions and conservation efforts will not generate sufficient revenue to cover Water Fund operating costs and debt coverage requirements without a water rate adjustment; and

WHEREAS, IGSservice, Inc. was employed to prepare a new Water Rate Study (Study) for the City, which analyzed the impacts of the drought and conservation, proposed a solution to City water rates to yield a revenue, based on anticipated water deliveries, sufficient to cover Water Fund operating costs and debt coverage requirements, and replace the existing water rate schedule adopted on January 19, 2012; and

WHEREAS, the City Council of the City of Coalinga discussed the Study alternatives on May 1, 2014, during which the rate alternatives presented in the Study were presented, debated, and comments were received from the public on the water rate alternatives; and

WHEREAS, the City Council of the City of Coalinga directed the City Manager to notify, via mail, the record owners of each parcel in accordance with the requirements of Proposition 218 and Government Code section 53750 et seq. of the proposed water rate adjustment; and

WHEREAS, a public hearing to consider the proposed new water rates and any protests to such rates was held at a public meeting on June 25, 2014 before the City Council of the City of Coalinga, which meeting and hearing was more than 45 days after the notice to property owners was mailed; and

WHEREAS, written protests to the proposed new water rates were not presented by a majority of the owners of the identified parcels in the City of Coalinga; and

WHEREAS, the proposed water rates set forth in Exhibit "A" attached hereto are nondiscriminatory and do not exceed the cost of providing water service and improvements to the water system (all as defined in section 6-4.01 of the Coalinga Municipal Code) for which the rates and charges are imposed; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Coalinga as follows:

1. The schedule of new water rates in Exhibit "A" attached hereto is hereby adopted, and the new water rates shall be effective on July 1, 2014.

The foregoing resolution was approved and adopted at a regular meeting of the City Council of the City of Coalinga held on the 25th day of June, 2014, by the following vote:

AYES:	Lander, Oxborrow, Ramsey, Keough, Garcia
NOES:	None
ABSTAIN:	None
ABSENT:	None

APPROVED:

  
\_\_\_\_\_  
Mayor

ATTEST:

  
\_\_\_\_\_  
City Clerk/Deputy City Clerk

## Exhibit A

City of Coalinga Water Rates and Charges Effective and Proposed Rates					
	Historical	Historical (3%)	Existing (3%)	Proposed (9%)	
Volumetric Rates (\$/TG)	3/1/2012	3/1/2013	3/1/2014	7/1/2014	
<b>Urban Residential</b>					
Tier 1: Up to 10,000 gals/mo.	\$1.35	\$1.39	\$1.43	\$1.56	
Tier 2: 10,001 to 30,000 gals/mo.	\$1.65	\$1.70	\$1.75	\$1.91	
Tier 3: Above 30,000 gals/mo.	\$2.00	\$2.06	\$2.12	\$2.32	
Urban Commercial	\$1.45	\$1.49	\$1.53	\$1.67	
Rural	\$1.41	\$1.45	\$1.49	\$1.63	
PVSP and CSH	\$1.76	\$1.81	\$1.86	\$2.03	
<b>Fixed Monthly Charge: (\$/Mo.)</b>					
<b>Urban Residential and Commercial</b>					
1" Meter Size	\$19.64	\$20.22	\$20.83	Fixed Monthly Charges Unchanged	
1.5"	\$78.50	\$80.86	\$83.29		
2"	\$297.22	\$306.14	\$315.32		
3"	\$667.38	\$687.40	\$708.02		
4"	\$1,186.68	\$1,222.28	\$1,258.95		
6"	\$2,671.68	\$2,751.83	\$2,834.38		
8"	\$4,750.02	\$4,892.52	\$5,039.30		
10"	\$5,276.96	\$5,435.27	\$5,598.33		
<b>Rural</b>					
1" Meter Size	\$27.14	\$27.96	\$28.80		
1.5"	\$108.66	\$111.92	\$115.28		
2"	\$488.92	\$503.58	\$518.69		
3"	\$1,099.76	\$1,132.75	\$1,166.73		
4"	\$1,954.48	\$2,013.12	\$2,073.51		
6"	\$4,400.26	\$4,532.26	\$4,668.23		
8"	\$7,822.68	\$8,057.36	\$8,299.08		
10"	\$8,691.74	\$8,952.49	\$9,221.06		
Pleasant Valley State Prison (PVSP)	\$9,200.00	\$9,476.00	\$9,760.28		
Coalinga State Hospital (CSH)	\$2,600.00	\$2,678.00	\$2,758.34		

**Appendix I**  
**NOTICE OF PUBLIC HEARING**  
**(NOT INCLUDED IN DRAFT VERSION)**

---



**APPENDIX J**  
**ADOPTING RESOLUTION**  
**(TO BE INCLUDED AFTER ADOPTION)**

---

---

**APPENDIX K**  
**UWMP COMPLETION CHECKLIST**

---

---

## Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	Sec. 2.2, Page 5
10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5.2	Sec. 2.5.2, Page 9
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 2.5.2	Appendix C
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Sec. 3.1 Page 11-12
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Sec. 3.3 Page 12-13
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	Sec. 3.4 Page 13-14
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Ch. 3 Page 11-14
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Sec. 3.4 Table 3-3 & Sec. 5.4 Table 5-1
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Sec. 4.3. Tables 4-1, 4-3 & 4-4
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	Sec. 4.4. Table 4-5
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	Sec. 4.6. Table 4-7

<b>10608.20(b)</b>	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	Sec. 5.7 Page 30-31, & Appendix F
<b>10608.20(e)</b>	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5 and App E	Ch. 5 & Appendix E
<b>10608.22</b>	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	Sec. 5.7.2. Table 5-6 & Appendix E
<b>10608.24(a)</b>	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	Sec. 5.7.3. Table 5-7 & Appendix E
<b>1608.24(d)(2)</b>	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	Section 5.8.2
<b>10608.36</b>	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	N/A
<b>10608.40</b>	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	Sec. 5.8. Table 5-9 & Appendix E
<b>10631(b)</b>	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	Ch. 6 Pages 34-50
<b>10631(b)</b>	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Sec. 6.2. Page 34-35
<b>10631(b)(1)</b>	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	Sec. 6.2.3. Pages 35

<b>10631(b)(2)</b>	Describe the groundwater basin.	System Supplies	Section 6.2.1	Sec. 6.2. Page 34-35
<b>10631(b)(2)</b>	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	Sec. 6.2. Page 34-35
<b>10631(b)(2)</b>	For adjudicated basins, indicate whether or not the department has identified the basin as over drafted, or projected to become over drafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	Sec. 6.2. Page 34-35
<b>10631(b)(3)</b>	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.4	Sec. 6.2. Page 34-35
<b>10631(b)(4)</b>	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	Sec. 6.2. Page 34-35
<b>10631(d)</b>	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	Sec. 6.7. Page 46
<b>10631(g)</b>	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8	Sec. 6.8. Page 46--47
<b>10631(i)</b>	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Sec. 6.6. Page 45
<b>10631(j)</b>	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	Section 2.5.1 Table 2-4
<b>10631(j)</b>	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	N/A

<b>10633</b>	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	Sec. 6.5.1. Page 31-38
<b>10633(a)</b>	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	Sec. 6.5.2. Pages 38-40
<b>10633(b)</b>	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	Sec. 6.5.2. Pages 38-40
<b>10633(c)</b>	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	Sec. 6.5.4. Table 6-3
<b>10633(d)</b>	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	Sec. 6.5.4. Table 6-3
<b>10633(e)</b>	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.4	Sec. 6.5.4. Table 6-3
<b>10633(f)</b>	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5	Sec. 6.5.5. Page 45
<b>10633(g)</b>	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	Sec. 6.5.4.1 Page 44
<b>10620(f)</b>	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	Sec. 7.4. Pages 54-56
<b>10631(c)(1)</b>	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	Sec. 7.2. Pages 51-53

<b>10631(c)(1)</b>	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	Sec. 7.3. Table 7-1
<b>10631(c)(2)</b>	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	Sec. 7.2. Pages 51-53
<b>10634</b>	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	Sec. 7.2.1. Page 51-52
<b>10635(a)</b>	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	Sec. 7.4. & 7.5 Pages 54-56
<b>10632(a) and 10632(a)(1)</b>	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	Sec. 8.2. Page 58-60
<b>10632(a)(2)</b>	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency.	Water Shortage Contingency Planning	Section 8.9	Sec. 8.10. Table 8-4
<b>10632(a)(3)</b>	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	Sec. 8.9. Pages 69
<b>10632(a)(4)</b>	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	Sec. 8.3. Table 8-2
<b>10632(a)(5)</b>	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	Sec. 8.5. Table 8-3
<b>10632(a)(6)</b>	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	Sec. 8.4. Page 64-65
<b>10632(a)(7)</b>	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	Sec. 8.7. Page 68

<b>10632(a)(8)</b>	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	Sec. 8.8. & Appendix G
<b>10632(a)(9)</b>	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	Sec. 8.6. Page 68
<b>10631(f)(1)</b>	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	Sec. 9.3. Pages 74-75
<b>10631(f)(2)</b>	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	N/A
<b>10631(j)</b>	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	N/A
<b>10608.26(a)</b>	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	Sec. 10.3. Page 78
<b>10621(b)</b>	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	Sec. 10.2.1. Page 77
<b>10621(d)</b>	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	Sec. 10.4. Page 79
<b>10635(b)</b>	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Sec. 10.4. Pages 79



<b>10642</b>	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	Sec. 10.2.2., 10.3., & 10.5. & Appendix I
<b>10642</b>	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	Sec. 10.2.1. Page 77
<b>10642</b>	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	Sec. 10.3.1. Pages 78-79 & Appendix I
<b>10644(a)</b>	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	Sec. 10.4.2. Page 79
<b>10644(a)(1)</b>	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Sec. 10.4.3. Page 79
<b>10644(a)(2)</b>	The plan or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	Sec. 10.4.1. Page 79
<b>10645</b>	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Sec. 10.5. Pages 79-80