ATASCADERO MUTUAL WATER COMPANY

2020 URBAN WATER MANAGEMENT PLAN

JULY 2021

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Atascadero Mutual Water Company

2020 Urban Water Management Plan

July 2021

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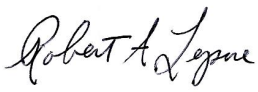

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Bibliography

The following reports, studies, and other material were reviewed during preparation of this Urban Water Management Plan update.

1) 2020 Urban Water Management Plans Guidebook for Urban Water Suppliers dated March 2021 and prepared by the California Department of Water Resources

2) Draft Atascadero Basin Groundwater Sustainability Plan dated February 2021 and prepared by GEI Consultants Inc. and GSI Water Solutions, Inc.

3) Completed American Water Works Association 2015 to 2019 Water Audits

4) Demand Study Spreadsheet dated 1971 – 2020 and prepared by Atascadero Mutual Water Company

5) San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan 2019 Update Public Review Draft dated October 2019 and prepared by Wood

6) 2050 Regional Growth Forecast for San Luis Obispo County Population, Housing, and Employment Projections for San Luis Obispo Council of Governments dated June 2017 and prepared by Beacon Economics

7) City of Atascadero General Plan 2025 last updated July 2016 by Lisa Wise Consulting, Inc.

8) 2015 Urban Water Management Plan dated June 2016 and prepared by Michael K. Nunley and Associates, Inc.

9) Memorandum of Understanding Regarding Urban Water Conservation in California January 4, 2016 and as amended by California Urban Water Conservation Council

10) San Luis Obispo County 2040 Population, Housing & Employment Forecast for San Luis Obispo Council of Governments dated August 11, 2011 and prepared by AECOM

11) San Luis Obispo County Master Water Report dated May 2012 and prepared by Carollo Engineers

12) Paso Robles Groundwater Basin Management Plan dated March 2011 and prepared by GEI Consultants

13) Water Master Plan Dated March 2010 and prepared by Wallace Group

14) Nacimiento Water Project Environmental Impact Report Final dated December 2003 and prepared by Marine Research Specialists

List of Acronyms

AB - Assembly Bill
AF - Acre-Foot
AFY - Acre-Feet per Year
AMWC - Atascadero Mutual Water Company
AWIA - America's Water Infrastructure Act
AWWA - American Water Works Association
BMP - Best Management Practice
CA - California
CASGEM - California Statewide Groundwater Elevation Monitoring Program
CD - Compact Disc
CEHTP - California Environmental Health Tracking Program
CII - Commercial, Industrial, Institutional, water use sectors
CIMIS - California Irrigation Management Information System
CUWCC - California Urban Water Conservation Council
CWC - California Water Code
DMMs - Demand Management Measures
DOF - Department of Finance
DRA - Drought Risk Assessment
DU – Dwelling Unit
DWR - Department of Water Resources
eARDWP - Electronic Annual Reports to the Drinking Water Program (SWRCB)
EIR - Environmental Impact Report
EPA - Environmental Protection Agency
ETo - Reference Evapotranspiration
GAC - Granular Activated Carbon
GIS - Geographic Information System
GPCD - Gallons per Capita per Day
GSA - Groundwater Sustainability Agency
GSP - Groundwater Sustainability Plan
HECW - High-Efficiency Clothes Washer
HET/DFT - High-Efficiency Toilet
ID - Identifier
IRWM - Integrated Regional Water Management
ITP - Independent Technical Panel
IX - Ion Exchange
LAFCO - Local Agency Formation Commission
MG - Million Gallons
MGY - Million Gallons per Year
NA - Not Applicable
NOAA - National Oceanic and Atmospheric Administration
NPDES - National Pollutant Discharge Elimination System
NWP – Nacimiento Water Project
PFOA - Perfluorooctanoic Acid
PFOS - Perfluoroalkyl Substances
PRV - Pressure Reducing Valve
PSA – Public Service Announcement
PWS - Public Water System
RCD - Resource Conservation District
RRA - Risk and Assessment
RUWMP - Regional Urban Water Management Plan
RWQCB - Regional Water Quality Control Board
SB - Senate Bill
SB X7-7 - Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009
SGMA - Sustainable Groundwater Management Act
SLOCOG - San Luis Obispo Council of Governments
SQ FT – Square Feet
SWP - State Water Project
SWRCB - State Water Resources Control Board
TCSD - Templeton Community Services District
UMWP - Urban Water Management Plan
UWMP - Urban Water Management Plan
WARN - Water/Wastewater Agency Response Network
WBIC - Weather-Based Irrigation Controllers
WDR - Waste Discharge Requirement
WRF - Water Reclamation Facility
WRR - Water Recycling Requirement
WSCP - Water Shortage Contingency Plan
WSS - WaterSense Specification
WUE - Water Use Efficiency
WWTP - Wastewater Treatment Plant

CHAPTER 1 UWMP INTRODUCTION AND OVERVIEW

The majority of the information contained in this chapter was taken from the State of California, Department of Water Resources Urban Water Management Plan Guidebook Final March 2021 (Guidebook) to provide a general overview of the purpose of the UWMP update.

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Act). The law required an urban water supplier (Supplier), providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet annually, to adopt an Urban Water Management Plan (UWMP) every five years demonstrating water supply reliability in normal, single dry, and multiple dry years. The original Act also required the California Department of Water Resources (DWR) to provide a report to the California Legislature on the status of water supply planning in California.

Since the Act was passed, it has undergone significant expansion and revision since the last UWMP Guidebook was prepared in 2015. Prolonged droughts, groundwater overdraft, regulatory revisions, and changing climatic conditions not only affect each Supplier's water reliability determinations, but also the broad picture of statewide water reliability overseen by DWR, the State Water Resources Control Board (State Water Board), and the State of California Legislature (Legislature). Accordingly, the Act has grown to address changing conditions and it guides California's water resource management.

This report comprises the 2020 UWMP update for the Atascadero Mutual Water Company (AMWC). AMWC is a mutual water company that provides water within and around Atascadero, California, a city located in northern San Luis Obispo County with approximately 31,749 residents as of 2020. The water system is comprised of approximately 240 miles of pipeline ranging in size from 4 inches to 24 inches, with nine storage tanks that range in size from 120,000 gallons to 4.8 million gallons. There are 15 active wells, eight booster stations, five treatment buildings, and 20 pressure-reducing stations located throughout the system. In addition, there are over 10,000 customer service connections, 3,700 valves, and 1,700 fire hydrants. Elevations in the system vary from 800 feet, at the well fields along the Salinas River, to 1,916 feet at the tank located in Summit Hills.

New Requirements for 2020 Update

Per the California Water Code (Water Code), the following new requirements have been identified in the 2020 Urban Water Management Plan Guidebook for Urban Water Suppliers and have been addressed throughout the report:

- ❑ Five Consecutive Dry-Year Water Reliability Assessment
- ❑ Drought Risk Assessment
- ❑ Seismic Risk
- ❑ Energy Use Information
- ❑ Water Loss Reporting for Five Years
- ❑ Water Shortage Contingency Plan
- ❑ Groundwater Supplies Coordination
- ❑ Lay Description

1.1 UWMP Organization

AWMC's 2020 UWMP update adheres to the organizational structure per the Guidebook and as outlined below. Supplemental tables have been added (when required) to accommodate new requirements and to clarify certain information.

Chapter 1 – UWMP Introduction and Lay Description: This chapter provides discussion of requirement changes since the 2015 UWMP, fundamentals of the 2020 UWMP, and the required lay description of AMWC and its service area. Some subsequent chapters also include an initial lay description.

Chapter 2 – Plan Preparation: This chapter provides information on processes used to develop the UWMP, including efforts in coordination and outreach.

Chapter 3 – System Description: This chapter includes maps of the service area, an explanation of the service area and climate, and detail on the public water system.

Chapter 4 – Water Use Characterization: This chapter provides a description and quantification of the current and projected water uses within the service area.

Chapter 5 – Conservation Target Compliance: This chapter describes AMWC's compliance with the 2020 per-capita water conservation mandate. This chapter shows AMWC's 2020 per-capita target value that was adopted in the 2015 UWMP, and compliance value based upon actual 2020 customer water use.

Chapter 6 – Water Supply Characterization: This chapter provides a description and quantification of current and projected potable and non-potable water (if applicable) supplies. A narrative description of each supply source and quantification of the supply availability for each supply source was identified.

Chapter 7 – Water Service Reliability and Drought Risk Assessment: This chapter describes AMWC's water system reliability through at least a 20-year planning horizon. This description includes normal, single dry year, and five consecutive dry years. This chapter can also include the Drought Risk Assessment (DRA). The water system reliability differs from the DRA by allowing a different basis for characterizing the five consecutive dry years.

Chapter 8 – Water Shortage Contingency Plan: This chapter provides a structured plan for dealing with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption.

Chapter 9 – Demand Management Measures: This chapter identifies AMWC's efforts to promote conservation and to reduce demand on the water supply; specifically including a narrative describing efforts to implement demand management measures.

Chapter 10 – Plan Adoption, Submittal, and Implementation: This chapter describes and documents the steps taken to make the UWMP publicly available, as well as the steps taken to adopt and submit the UWMP in accordance with the Water Code. This chapter also describes AMWC's plan to implement the UWMP.

Appendices: To support and further clarify information included in the main chapters of the UWMP, relevant information has been included in the appendix of this UWMP.

Table 1-1 provides an overview of the applicable changes to the Water Code since the 2015 UWMP, which have been included in this 2020 update.

Table 1-1: Water Code Changes Since 2015 UWMP

Change Number	Topic	CWC Section	Summary	Guidebook Section
1	System Description	10631(a)	Suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land uses information for projecting water use in five-year increments, up to the year 2045.	3.0
2	Other Social, Economic, and Demographic Factors	10631	Describe the service area of the supplier, including current and projected population, climate, and other social, economic and demographic factors affecting the supplier's water management planning.	3.4.2
3	Land Uses within Service Area	10631(a)	The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning.	3.5
4	Distribution System Water Loss	10635	Suppliers shall provide a simple lay description of their projected water use for the foreseeable future.	4.2.4
5	Distribution System Water Loss	10631(d)(3) (A) and (C)	Suppliers shall provide quantified distribution system losses for each of the five preceding years and whether or not the state standard was met.	4.2.4
6	Characteristic Five-Year Water Use	10635(b)	The Supplier must produce a projected water use for the years 2021 through 2025 as part of the water use projections, up to the year 2040.	4.2.7
7	Climate Change Effects	10635(b)(1)	Consideration of climate change in future projections in regards to water supply.	6.2. & 10.1
8	Drought Risk Assessment	10635(b)	DRA prepared as a component of the 2020 UWMP	7.3
9	Water Service Reliability – Five Consecutive Dry Years	10635(a); 10631 (b)(1)	Submittal Table 7-4 is used for the Supplier's water service reliability assessment for five consecutive dry years, for each of the five-year projection increments out to at least 2040	7.2.1 & 7.2.3.3
10	Water Supply Reliability Analysis	10632(a)(1)	Key attributes of its water supply reliability analysis	8.1
11	Six Standard Water Shortage Levels	10632 (a)(3)(A)	Six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50-percent shortages and greater than 50-percent shortage.	8.3
12	Shortage Response Actions	10632 (a)(4)	Locally appropriate "shortage response actions" for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands.	8.4
13	Annual Water Supply and Demand	10632 (a)(2)	Suppliers are required to submit, by July 1 of each year, beginning in the year following adoption of the 2020 UWMP, an annual water shortage	8.2

Table 1-1: Water Code Changes Since 2015 UWMP				
	Assessment Procedures		assessment report to the California Department of Water Resources (DWR).	
14	Communication Protocols	10632 (a)(5)	Communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions.	8.5
15	Monitoring and reporting	10632(a)(9)	Monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements.	8.9
16	WSCP Refinement Procedures	10632(a)(10)	A reevaluation and improvement process to assess the functionality of its WSCP and to make appropriate adjustments as may be warranted.	8.10

1.2 UWMP in Relation to Other Efforts

An UWMP is prepared by local Suppliers that have the in-depth and practical knowledge of their water systems. The information contained in each Supplier's UWMP reflects the operations of its system in the context of the Supplier's customers, supplies, and service area. This local planning and preparation remains the fundamental focus of the UWMP.

In addition to the local Supplier focus, the UWMP requires coordination with other planning agencies and is most effective when integrated with other planning efforts. Land-use planning agencies, such as cities and counties, prepare General Plans and Specific Plans that affect a Supplier's analysis provided in its UWMP, and vice versa. Moreover, Water Master Plans, facilities' plans, Recycled Water Master Plans, Integrated Regional Water Management Plans, Regional Climate Action Plans, Groundwater Sustainability Plans, AB 3030 Groundwater Management Plans, local or regional Hazard Mitigation Plans, and others need to be integrated with a Supplier's UWMP to ensure a holistic planning process.

For this UWMP, elements of the following reports and documents were utilized to develop the required sections of the plan (a brief description is provided for the relevant information contained in each document):

- 2015 Urban Water Management Plan: Served as the basis for the 2020 update.
- AMWC Demand Study (1971-2020): Contains historical and future projection information for the following number of dwelling units and customers served; population projections, per capita usage, water supply and production costs.
- 2050 Regional Growth Forecast for San Luis Obispo County Population, Housing, and Employment Projections for San Luis Obispo Council of Governments dated June 2017 and prepared by Beacon Economics: Used to estimate future population projections throughout 2045.
- San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan: Contained information to address the seismic risk assessment and mitigation requirement of the UWMP update.
- Draft Atascadero Basin Groundwater Sustainability Plan: Contained information to address climate change within the service area.

AMWC's latest water master plan was developed in March 2010 and was not used to inform this UWMP update since it does not contain current information related to existing water usage, future demand projections, and water supply availability.

1.3 UWMPs and Grant or Loan Eligibility

In order for a Supplier to be eligible for any water grant or loan administered by DWR, the Supplier must have a current UWMP on file that has been determined by DWR to address the requirements of the Water Code. A current UWMP

must also be maintained by the Supplier throughout the term of any grant or loan administered by DWR. A UWMP may also be required in order to be eligible for other state funding, depending on the conditions that are specified in the funding guidelines. Suppliers are encouraged to seek guidance on the specifics of any state funding source from the respective funding agencies. The following sections of the Water Code are pertinent to Suppliers considering pursuit of grants or loans.

Law

CWC 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.

(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.

(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).

CWC 10608.56
An urban water supplier is not eligible for a water grant or loan awarded or administered by the state unless the urban water supplier complies with this part.

California Code of Regulations Section 596.1 (b)(2) "disadvantaged community" means a community with a median household income that is less than 80 percent of the statewide annual median household income.

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CHAPTER 2 PLAN PREPARATION

New Requirements for 2020 Update

Per the Guidebook, in terms of new requirements on plan preparation, the preparation and periodic update of a Water Shortage Contingency Plan (WSCP) is now required, which is included in the UWMP but adopted and amended independent of the UWMP. Coordination with land use agencies, GSAs, and other relevant regional or local authorities is now required as part of preparing the UWMP and the WSCP.

2.1 Plan Preparation

This chapter includes information about the following elements required for the AMWC 2020 UWMP update:

- ❑ Basis for Preparing a Plan
- ❑ Regional Planning
- ❑ Individual or Regional Planning and Compliance
- ❑ Fiscal or Calendar Year and Units of Measure
- ❑ Coordination and Outreach

2.2 Basis for Preparing a Plan

Law

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 July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

(d) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.

2.2.1 Public Water Systems

Law

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.

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.

AMWC is a public urban water supplier serving more than 31,749 customers and covering approximately 24,000 acres in the northern portion of the County.

2.2.2 Suppliers Serving Multiple Service Areas/Public Water Systems

AMWC serves a single public water system and service area. **Table 2-1** provides a summary of the number of connections and total volume of water supplied by AMWC to their customers for calendar year 2020.

Table 2-1 Retail Only: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 (MG)
CA4010002	Atascadero Mutual Water Company	10,807	1,727
	TOTAL	10,807	1,727

2.3 Regional Planning

AMWC currently participates in the Atascadero Groundwater Basin Groundwater Sustainability Agency (GSA) injunction with Templeton Community Services District, City of Atascadero, County of San Luis Obispo, City of Paso Robles, and a collection of other small water districts and mutual water companies to coordinate on regional water resource planning efforts.

2.4 Individual or Regional Planning and Compliance

2.4.1 Regional UWMP

Law

CWC 10620
(d)(1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

AMWC has developed an UWMP that reports solely on its service area and will not be participating in a regional UWMP update. This plan addresses all requirements of the Water Code including water use targets and baselines for Senate Bill Extraordinary Session 7-7 (SB X7-7) Water Conservation Act of 2009 reporting.

2.4.2 Regional Alliance

Law

CWC 10608.20
(a)(1) …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…

CWC 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.

AMWC has developed an UWMP that reports solely on its service area as identified in **Table 2-2**, but has coordinated with the appropriate regional agencies during the development of this plan.

Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable*
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		

2.5 Fiscal or Calendar Year and Units of Measure

2.5.1 Fiscal or Calendar Year

Law

CWC 1608.20
(a)(1) Urban retail water suppliers…may determine the targets on a fiscal year or calendar year basis

AMWC has reported water-related information included in this UWMP based on calendar basis and all units are measured in million gallons (MG) as identified in **Table 2-3**.

Table 2-3: Supplier Identification	
Type of Supplier	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
NA	
Units of Measure Used in UWMP	
Unit	MG

2.5.2 Reporting Complete 2020 Data

This 2020 UWMP includes water use and planning data for the entire calendar year of 2020.

2.5.3 Units of Measure

Water volumes presented in this 2020 UWMP are measured in million gallons (MG) as identified in **Table 2-3**.

2.6 Coordination and Outreach

2.6.1 Wholesale and Retail Coordination

Law

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).

AMWC has provided the San Luis Obispo County Flood Control and Water Conservation District, a regional wholesale supplier, with projected water demand in five-year increments for the next 20 years.

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name
San Luis Obispo County Flood Control and Water Conservation District via the Nacimiento Water Project

2.6.2 Coordination with Other Agencies and the Community

Law

CWC 10620
(d)(3) 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.

AMWC coordinated with multiple neighboring and stakeholder agencies in the preparation of this UWMP. The coordination efforts were conducted to: 1) inform the agencies of the activities of AMWC; 2) gather high quality data for use in developing this UWMP; and 3) coordinate planning activities with other related regional plans and initiatives. The coordination activities conducted by AMWC in preparation of this plan are summarized in **Table 2-5**.

Table 2-5: Agency Coordination							
Agency	**Sent a notice of public hearing for draft UWMP**	**Commented on the draft**	**Attended public meetings**	**Contacted for assistance**	**Sent a copy of the draft plan**	**Sent a notice of intention to adopt**	**Notice of Plan Availability**
Atascadero Basin Groundwater Sustainability Agency	X			X	X	X	X
California Department of Water Resources							X
California Water Efficiency Partnership (CALWEP), formerly CUWCC							X
City of Atascadero	X				X	X	X
City of Paso Robles	X				X	X	X
County of San Luis Obispo	X				X	X	X
Templeton Community Services District	X				X	X	X
Atascadero State Hospital	X				X	X	X

2.6.3 Notice to Cities and Counties

Law

> ***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.*

AMWC has notified the City of Atascadero, the City of Paso Robles, and the County of San Luis Obispo and of the public hearing and this notification has been reported in Chapter 10 **Table 10-1**.

CHAPTER 3 SYSTEM DESCRIPTION

New Requirements for 2020 Update

Per the Water Code the following new requirements are necessary for this chapter of the UWMP 2020 update.

- ❑ Inclusion of service area socioeconomic information as part of the system description
- ❑ Coordination with land use agencies and a description of current and projected land uses within the service area

Law

CWC Section 10631
Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and 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. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

3.1 General Description

AMWC provides water service to the City of Atascadero (15,350 land acres) and approximately 7,622 acres of unincorporated land within the County of San Luis Obispo. Of the unincorporated land, approximately 2,000 acres is composed of suburban estate parcels. The AMWC served an overall population of 31,749 (Department of Finance) within its service area in 2020. The water system is comprised of approximately 240 miles of pipeline ranging in size from 4 inches to 24 inches, with nine storage tanks that range in size from 120,000 gallons to 4.8 million gallons. There are 15 active wells, eight booster stations, five treatment buildings, and 20 pressure-reducing stations located throughout the system. In addition, there are over 10,000 customer service connections, 3,700 valves, and 1,700 fire hydrants. Elevations in the system vary from 800 feet, at the well fields along the Salinas River, to 1,916 feet at the tank located in Summit Hills.

3.2 Service Area Boundary Maps

Figure 3-1 illustrates the location of AMWC within the state of California and **Figure 3-2** shows the extents of the current AMWC service area, City of Atascadero city limits, and Urban Reserve Boundary for the City.

3.3 Service Area Climate

Law

CWC Section 10631(a)
Describe the service area of the supplier, including climate.

CWC Section 10630
It is the intention of the Legislature, in enacting this part, to permit levels of water management planning… while accounting for impacts of climate change.

Monthly use in a summer month is typically three to four times the use in a winter month. Due to the large amount of summer irrigation in the City of Atascadero. The maximum summer use exceeds the maximum winter use by a factor of 3.1 to 3.9 times. There is a significant disparity in the "shoulder" months of spring and fall that can be explained by

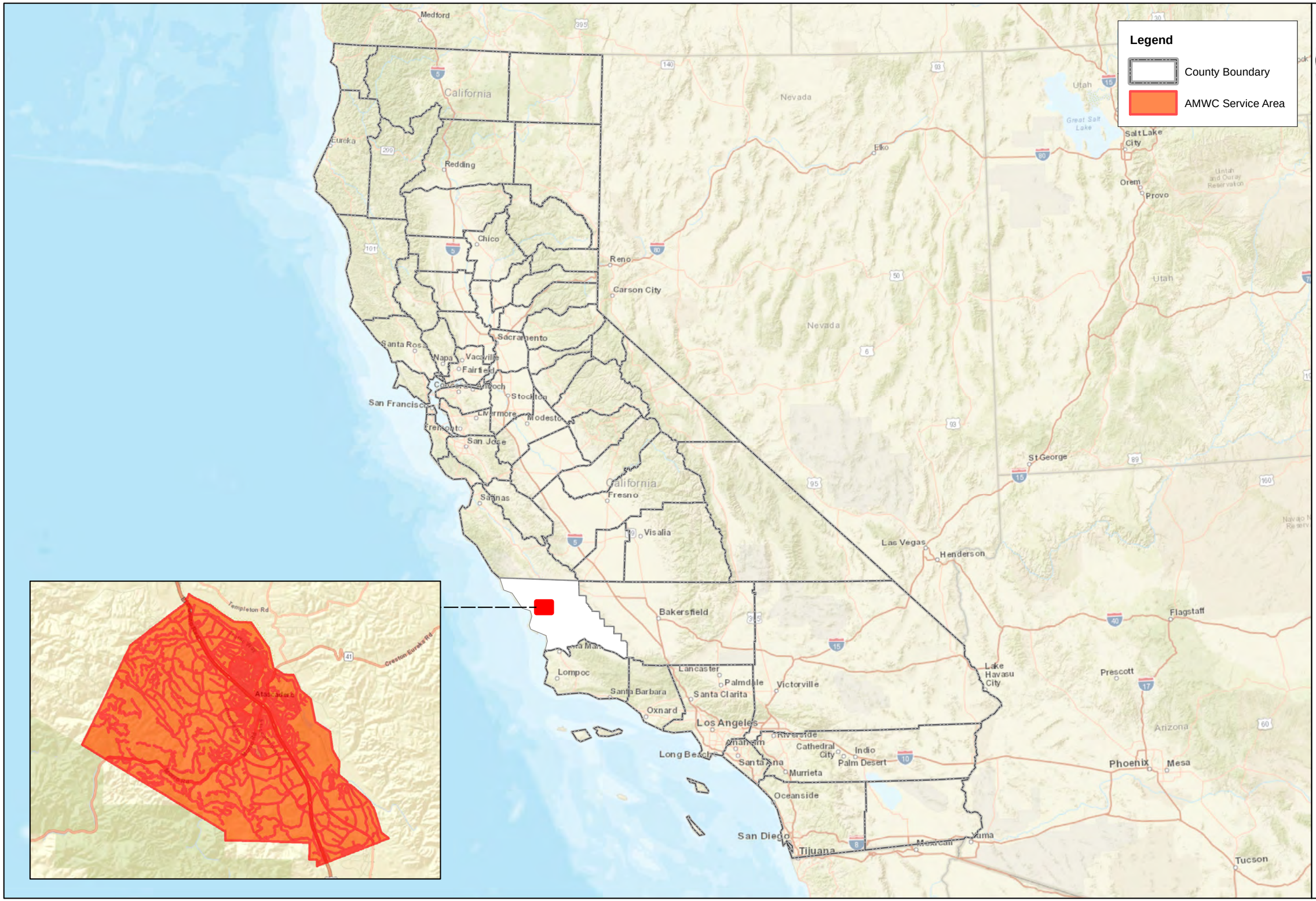
the great differences in weather patterns in the spring months of March thru June and the fall month of October. Daily weather variations can range from an afternoon high of 95 - 100 degrees, followed by late night and dawn temperatures in the 50s.

Table 3-0: Climate Conditions for Calendar Year 2020

Month	Monthly Average ETo*	Monthly Rainfall*	Monthly Average Temperature*
	Inches	Inches	Fahrenheit
Jan	1.9	0.7	46.8
Feb	3.2	0.3	48.3
Mar	3.1	2.3	49.8
Apr	5.1	0.3	56.6
May	7.0	1.0	62.3
Jun	7.3	0.2	65.7
Jul	7.5	0.1	67.0
Aug	6.6	1.0	71.8
Sep	5.2	0.6	68.9
Oct	4.2	0.5	62.5
Nov	2.5	0.5	50.2
Dec	1.9	1.1	44.6
Average	**4.9**	**0.7**	**59.1**
Total	**55.6**	**8.4**	**-**

NOTE: CIMIS Station #163 Atascadero Monthly Average Report for 2020.

With respect to climate change, AMWC has not conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for AMWC's groundwater supply were incorporated into the Atascadero Basin Groundwater Sustainability Plan (GSP) and Chapter 6 of the Atascadero Basin GSP has been included as Appendix A.



Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 3-1:

AMWC
Location Map

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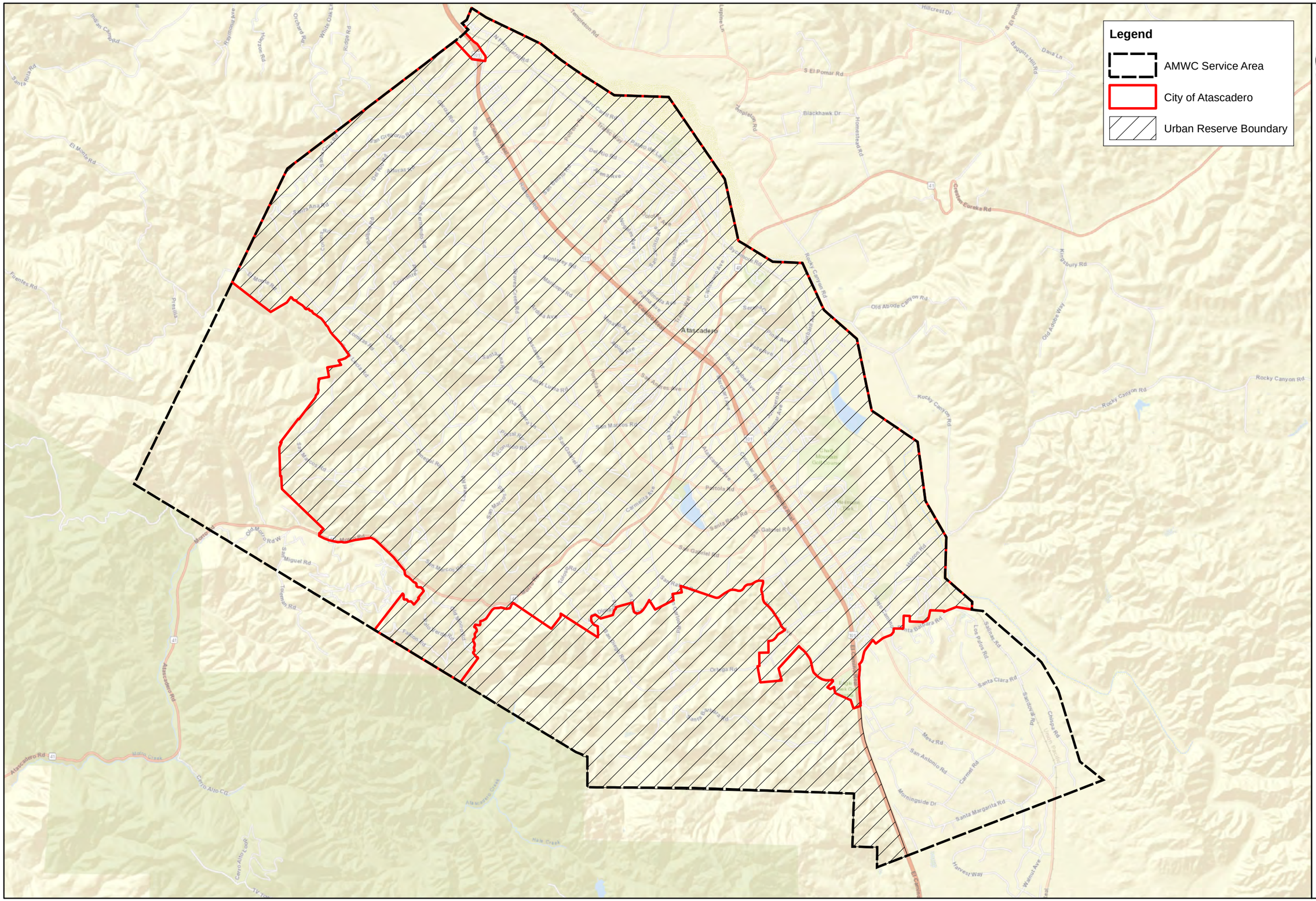

Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 3-2:

AMWC
Service Area Map

Scale = NTS

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3.4 Service Area Population and Demographics

3.4.1 Service Area Population

Law

> ***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.*

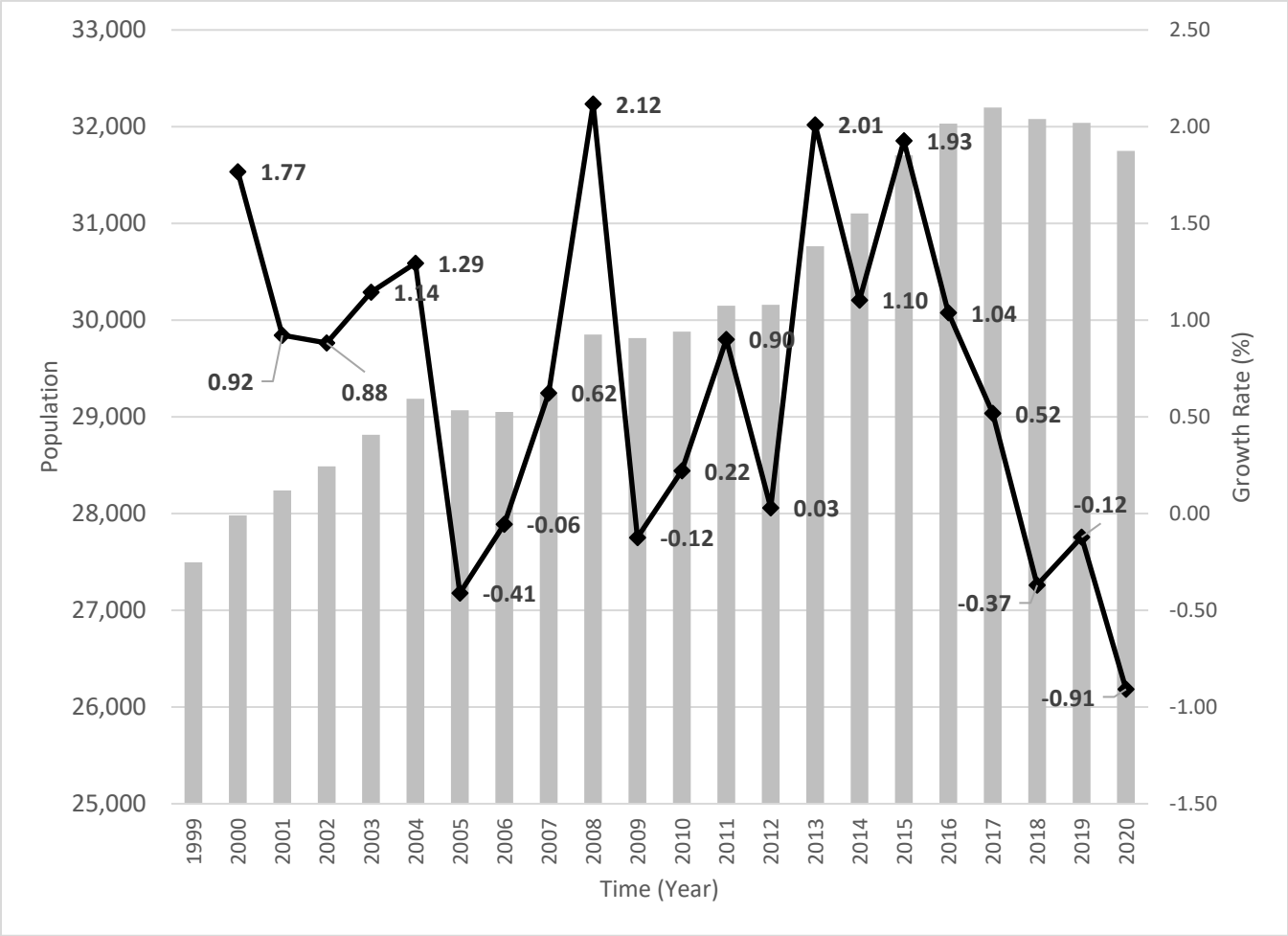
AMWC provides water service to the City of Atascadero and a portion of unincorporated County area located outside of the City limits. AMWC does not have land use planning authority and relies on the City and County to identify potential new developments and overall population growth within the service area. The City and County coordinate with AMWC during the review process for new developments within the service area. With respect to population growth within the service area, several planning documents were reviewed to determine the appropriate population and growth rate to use for the 2020 update. The following planning documents included proposed population estimates through 2050 for the City of Atascadero only and did not include estimates for the County portion of the AMWC service area:

- 2050 Regional Growth Forecast for San Luis Obispo County Population, Housing, and Employment Projections for San Luis Obispo Council of Governments (June 2017) with three growth scenarios through 2050 including:
  - Low growth 2050 population of 32,907 with an annual average growth rate 0.23% (2020 to 2050)
  - Medium growth 2050 population of 34,538 with an annual average growth rate 0.37% (2020 to 2050)
  - High growth 2050 population of 39,768 with an annual average growth rate 0.77% (2020 to 2050)
- City of Atascadero General Plan 2025 (last updated July 2016):
  - Estimated buildout year of 2025 with a population of 36,030 with an annual average growth rate 1.25%
- San Luis Obispo County 2040 Population, Housing & Employment Forecast for San Luis Obispo Council of Governments (August 2011) with three growth scenarios through 2040 including:
  - Low growth 2040 population of 31,650 with an annual average growth rate 0.60% (2020 to 2040)
  - Medium growth 2040 population of 32,486 with an annual average growth rate 0.69% (2020 to 2040)
  - High growth 2040 population of 33,274 with an annual average growth rate 0.77% (2020 to 2040)

Figure 3-3 provides a summary of historical growth rates within the AMWC service area over the last twenty years (based on values from the Department of Finance Data for the City of Atascadero) with the following average growth rates:

- 5-year growth rate of 0.03% (2015-2020)
- 10-year growth rate of 0.61% (2010-2020)
- 20-year growth rate of 0.64% (2000-2020)

Figure 3-3: Service Area 20-year Population and Growth Rate Chart



The 2020 population estimate within the AMWC service area was based on the Department of Finance 2020 population data for the City of Atascadero, which makes up 92% of the service area, and an estimated persons per connection for the services located within the County portion of the service area.

To estimate the future population through 2045, a growth rate of 0.77%, which is consistent with the high growth rate scenarios for both San Luis Obispo Council of Governments plans described above, was selected. **Table 3-1** provides a summary of 2020 and future population projections within the AMWC service area through 2045.

Table 3-1 Retail: Population - Current and Projected						
Population	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**
Served	31,749	32,990	34,280	35,620	37,013	38,460
NOTES: 2020 population based on Department of Finance data plus estimated population within the County portion of the service area.						

3.4.2 Other Social, Economic, and Demographic Factors

Law

> ***CWC Section 10631***
> *Describe the service area of the supplier, including… other social, economic and demographic factors affecting the supplier's water management planning.*

Atascadero was founded in 1913 as a large-lot, self-sustaining, agrarian community. Much of that character is still maintained to this day; with the average lot size remaining over 1.5 acres. Residential agriculture included within the measurement of landscape area as many parcels contain orchards, vineyards, gardens, irrigated pastures, and livestock. Total water use increases from year to year due to population growth within the service area. The direct relationship between growth and water consumption should increase at the same rate as population increases. Historically, low water rates and large residential lot sizes allowed for the irrigation of landscaping, orchards, vineyards, and irrigated pastures for livestock at reasonable cost to the residents. Water use patterns are influenced by the tiered rate structure, rate increases, conservation outreach, the City of Atascadero's Landscape Ordinance, and its "Smart Growth" policy that encourages infill of existing City land with higher density development.

The following information was obtained from the US Census Bureau to describe the demographics of the customer base within the AMWC service area (City of Atascadero specifically):

- The population includes 51% male and 49% female with 63% of the population between the ages of 18 and 65
- Approximately 76% of the population is White with 17% Hispanic or Latino
- The median household income was identified to be $80,000 with 7% of the population within the poverty level

3.5 Land Uses within Service Area

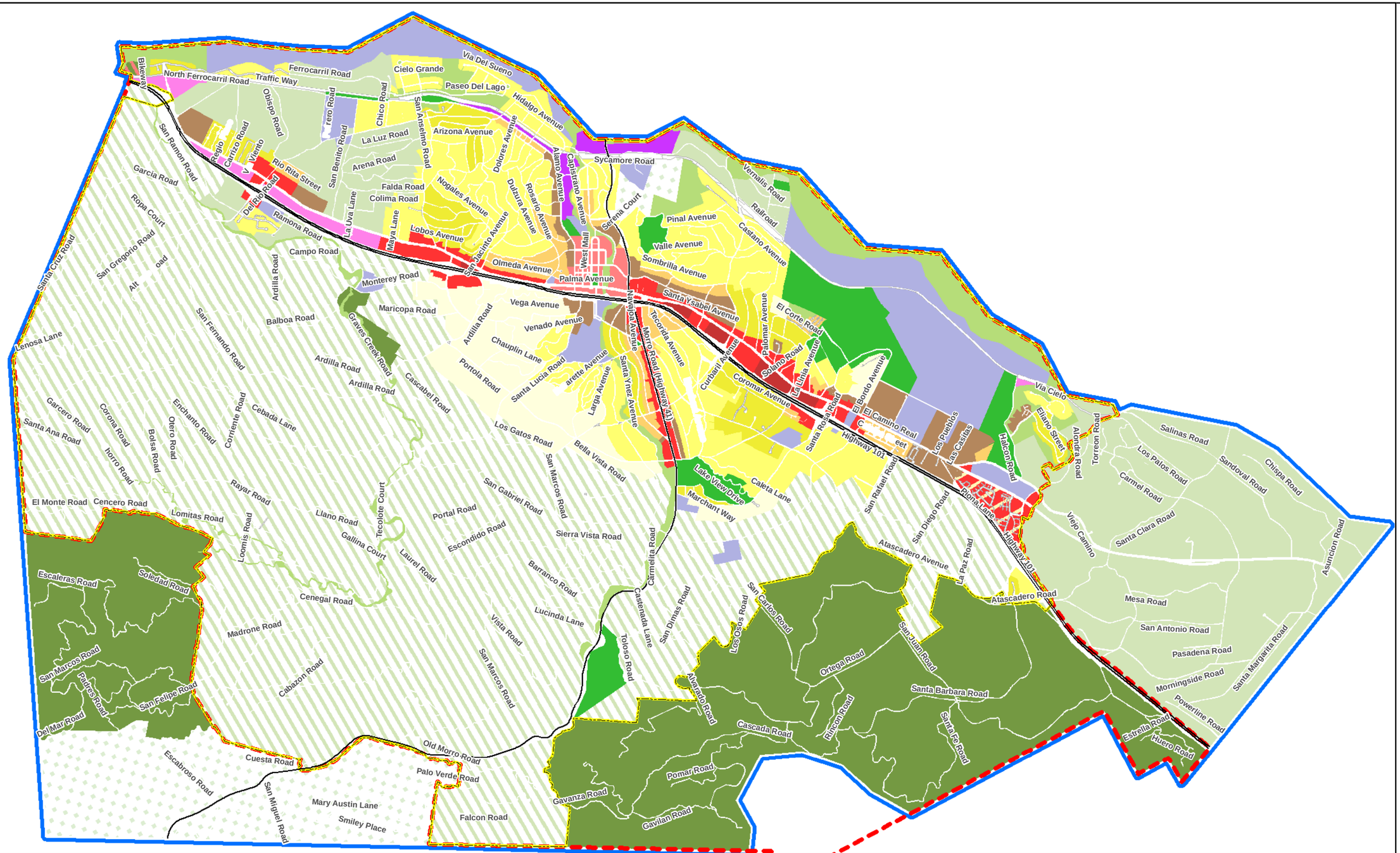
Law

> ***CWC Section 10631(a)***
> *The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities…*

The AMWC service area (22,972 land acres) includes approximately 12,141 parcels with 11,134 parcels within the City of Atascadero (92%) and 1,007 parcels within the County of San Luis Obispo (8%). **Table 3-2** shows a summary of the currently developed land uses throughout the existing service area.

Table 3-2: Developed Land Use Summary within Service Area			
Land Use Category	**Designation**	**Gross Acres**	**Percent of Total**
Agriculture	A	198	1%
Commercial Park	CPK	79	1%
Commercial Recreation	CREC	7	0%
Downtown	D	47	0%
General Commercial	GC	232	2%
High Density Residential (16 units /ac)	HDR	253	2%
Industrial	I	75	1%
Medium Density Residential (10 units /ac)	MDR	194	1%
Mixed Use	MU-PD	33	0%
Open Space	OS	65	0%
Public Facilities	P	466	3%
Right-of-Way	ROW	8	0%
Rural Residential	RR	477	4%
Rural Estates (2.5 - 10 acre lot min)	RE	194	1%
Public Recreation	REC	297	2%
Service Commercial	SC	37	0%
Suburban Estates (2.5 - 10 acre min)	SE	2,027	15%
Single Family Residential (0.5 acre min)	SFR-X	516	4%
Single Family Residential (1.0 acre min)	SFR-Y	1,477	11%
Single Family Residential (1.5 - 2.5 acre min)	SFR-Z	564	4%
	Total	**13,607**	**100%**

Figure 3-4 provides an overview of the overall land use categories within the service area.



Legend

- AMWC Service Area
- Urban Reserve Line
- City of Atascadero Boundary
- RR: Rural Residential
- RE: Rural Estates (2.5 - 10 acre lot min)
- SE: Suburban Estates (2.5 - 10 acre lot min)
- SFR-Z: Single Family Residential (1.5 - 2.5 acre lot min)
- SFR-Y: Single Family Residential (1.0 acre lot min)
- SFR-X: Single Family Residential (0.5 acre lot min)
- MDR: Medium Density Residential (10 units / ac)
- HDR: High Density Residential (16 units / ac)
- GC: General Commercial
- SC: Service Commercial
- D: Downtown
- MU-PD: Mixed Use
- CPK: Commercial Park
- I: Industrial
- CREC: Commercial Recreation
- REC: Public Recreation
- OS: Open Space
- A: Agriculture
- P: Public Facilities
- Right-of-Way

Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 3-4:

Land Uses within Service Area

Scale = NTS

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Table 3-3 provides a summary of parcels that do not currently receive water service from AMWC. It is assumed that the Agriculture land use identified in **Table 3-3** would not receive water from AMWC in the future. In addition, the Public Facilities category represents the Atascadero State Hospital, which has its own water system and does not receive water from AMWC.

Table 3-3: Land Uses Not Currently Served by AMWC

Land Use Category	Designation	Gross Acres	Percent of Total
Agriculture	A	4,239	45%
Commercial Recreation	CREC	0	0%
Commercial Park	CPK	7	0%
Downtown	D	15	0%
General Commercial	GC	44	0%
High Density Residential (16 units /ac)	HDR	46	0%
Industrial	I	11	0%
Medium Density Residential (10 units /ac)	MDR	10	0%
Mixed Use	MU-PD	20	0%
Open Space	OS	279	3%
Public Facilities	P	155	2%
Right-of-Way	ROW	117	1%
Rural Residential	RR	749	8%
Rural Estates (2.5 - 10 acre lot min)	RE	1,958	21%
Public Recreation	REC	693	7%
Service Commercial	SC	5	0%
Suburban Estates (2.5 - 10 acre min)	SE	856	9%
Single Family Residential (0.5 acre min)	SFR-X	4	0%
Single Family Residential (1.0 acre min)	SFR-Y	94	1%
Single Family Residential (1.5 - 2.5 acre min)	SFR-Z	64	1%
	Total	**9,365**	**100%**

The majority of the land uses listed above include vacant properties within the City and/or County. AMWC regularly reviews development plans provided by these agencies to address the feasibility of serving future uses based on available supply and infrastructure. **Figure 3-5** also shows vacant land throughout the service area.

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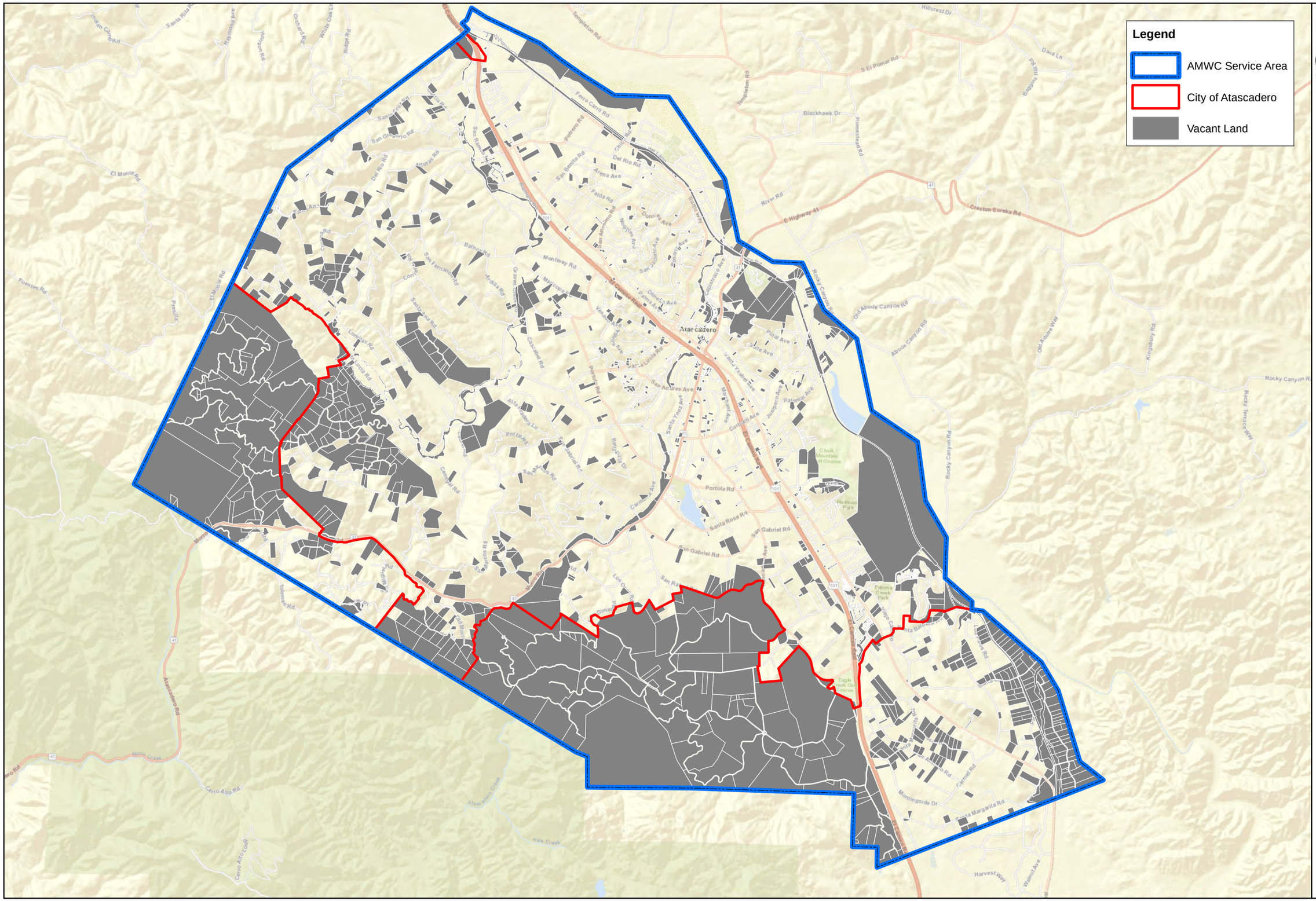

Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 3-5:

Vacant Land within Service Area

Scale = NTS

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CHAPTER 4 WATER USE CHARACTERIZATION

New Requirements for 2020 Update

Per Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- ❑ Suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land uses information for projecting water use in five-year increments, up to the year 2045.
- ❑ Suppliers shall provide a simple lay description of their projected water use for the foreseeable future.
- ❑ If available, water use projections must display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified. [Water Code Section 10631(d)(4)(A)]
- ❑ Suppliers shall provide quantified distribution system losses for each of the five preceding years and whether or not the state standard was met.
- ❑ Both Wholesale and Retail Suppliers shall include a DRA for a drought period that lasts five consecutive water years, starting from the year following the assessment, which would be 2021 for this round of UWMPs (see Chapter 7). The DRA requires a comparison of water supplies with total projected water use. Therefore, the Supplier must produce a projected water use for the years 2021 through 2025 as part of the water use projections, up to the year 2040.
- ❑ Both Wholesale and Retail Suppliers will have to conduct an annual water supply and demand assessment on or before July 1 of each year, starting in 2022. The annual assessment will include current year unconstrained demand. Suppliers are encouraged to consider unconstrained demand as the expected water use in the upcoming year, based on recent water use, and before any projected response actions a Supplier may trigger under its Water Shortage Contingency Plan (see Chapter 8).

4.1 Non-Potable Versus Potable Water Use

There is currently no existing or future recycled water demand within the AMWC service area. The City's Water Reclamation Facility (WRF) discharges treated wastewater via percolation ponds. The Chalk Mountain Golf Course currently extracts this water via an irrigation well, but this process is not considered a reportable use of recycled water per DWR. However, flows from the City's WRF percolate through the Salinas River alluvium and Paso Robles formation and act as a source of recharge for the Atascadero Basin.

4.2 Past, Current, and Projected Water Use by Sector

Law

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 long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive 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.

CWC 10631 (d)
(1) For an urban retail water supplier, 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, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following…

(2). The water use projections shall be in the same five-year increments described in subdivision (a).
(4)(A) Water use projections, where available, shall 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.

In this section current and projected water usage is addressed. **Table 4-3** displays water use in five-year increments from 2025 till 2045.

4.2.1 Water Use Sectors Listed in Water Code

CWC 10631(d)

(1) For an urban retail water supplier, 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, based upon information developed pursuant to subdivision (a), 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

AMWC's service area includes the following water demand sectors listed in the California Water Code:

- ❑ Single Family: Single family detached dwellings
- ❑ Multi-Family: Apartments, condominiums, town houses, duplexes and trailer parks
- ❑ Commercial: Retail establishments, office buildings, laundries, schools, prisons, hospitals, dormitories, nursing homes, hotels, churches, campgrounds
- ❑ Industrial: All manufacturing
- ❑ Institutional and governmental: Tracked under Commercial customer class
- ❑ Landscape: Parks, play fields, cemeteries, median strips, golf courses
- ❑ Distribution system water loss

The following sectors are not applicable to the AMWC UWMP:

- ❑ Sales to other agencies
- ❑ Saline water intrusion barriers, groundwater recharge, or conjunctive use
- ❑ Agricultural

4.2.2 Water Use Sectors in Addition to Those Listed in Water Code

To provide clarity, acknowledgment of these additional sectors is being addressed. However, the following sectors are not applicable to the AMWC UWMP:

- ❑ Exchanges
- ❑ Surface Water Augmentation
- ❑ Transfers
- ❑ Wetlands or Wildlife Habitat

4.2.3 Past Water Use

Table 4-0 provides historical water usage by customer type from 2015 through 2019.

Table 4-0: Historical Water Usage

Use Type	Water Use (MG)					% of Total
	2015	2016	2017	2018	2019	
Single Family	993	1015	1,088	1,140	1,056	68
Multi-Family	127	127	132	138	135	8
Commercial	112	118	129	131	126	8
Industrial	1	1	1	2	1	0
Landscape	104	105	124	126	115	7
Losses	102	106	168	115	170	8
Total (MG)	**1,439**	**1,472**	**1,642**	**1,652**	**1,603**	**100**

NOTES: Values represent metered use as reported to DWR for 2020. Percentage of total based on average of the last 5 years. Water losses are based on total production minus metered use and do not reflect detailed loss values from the AWWA water loss worksheets.

4.2.4 Distribution System Water Loss

CWC 10631(d)(1)
For an urban retail water supplier, 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, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following…

(J) Distribution system water loss….

CWC 10631(d)(3)
(A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34
(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.
(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

Table 4-4 includes projected water losses, reported in five-year increments for the next 20 years. Section 4.2.6 contains **Table 4-5** which identities distribution system water losses for each of the five years preceding the plan update.

4.2.5 Current Water Use

Table 4-1 provides an overview of the existing water demands by use type within AMWCs service area for calendar year 2020.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual		
Use Type	2020 Actual	
	Level of Treatment When Delivered	Volume (MG)
Single Family	Drinking Water	1,164
Multi-Family	Drinking Water	142
Commercial	Drinking Water	124
Industrial	Drinking Water	1
Landscape	Drinking Water	121
Losses	Drinking Water	174
TOTAL (MG)		**1,726**
NOTES: Values represent metered use as reported to DWR for 2020.		

4.2.6 Projected Water Use

Law

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 long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive 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.

CWC 10631 (h)
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 (f). 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 (f).

CWC 10631 (d)(4)
(A) Water use projections, where available, shall 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.

Per the 2015 UWMP, AMWC is required to comply with an urban water use target of 158 gallons per capita per day (gpcd) by 2020. **Table 4-1a** provides a summary of historical gpcd within the service area and years of mandatory conservation with requested conservation level (% reduction).

Table 4-1a: Historical Use Rates (GPCD)						
Year	Service Area Population	Water Production (MG)	Gross Water Use (gpcd)	Meter Residential Use (MG)	Residential Water Use (gpcd)	Mandatory Conservation
2010	29,880	1,809	166	1,347	123	-
2011	30,149	1,709	155	1,356	123	-
2012	30,158	1,875	170	1,452	132	-
2013	30,764	1,977	176	1,535	137	-
2014	31,103	1,690	149	1,352	119	20%
2015	31,703	1,439	124	1,120	97	28%
2016	32,032	1,472	126	1,142	98	28%
2017	32,198	1,642	140	1,220	104	-
2018	32,079	1,652	141	1,279	109	-
2019	32,040	1,603	137	1,191	102	-
2020	31,749	1,727	149	1,306	113	-
5-Year Average			**136**	-	**104**	-
10-Year Average			**149**	-	**114**	-
2015 UWMP 2020 Target			**158**	-		-
NOTES: Potable Demand based on historical production values provided by AMWC. 5-year average includes 2015-2020 and 10-year average includes 2010-2020.						

4.2.6.1 20-Year Planning Horizon

Annual water demand within the service area was assumed to increase in proportion to the population projected by SLOCOG for the City of Atascadero and surrounding area. The demand projections in **Table 4-2** are based on historical gpcd trends (**Table 4-1a**), includes mandatory water use prohibitions as requested by the State, and incorporates the required target per-capita water use per SB X7-7 (158 gpcd) for AMWC to meet the 20% reduction by 2020. Future water demand projections were based on AMWC's Demand Study spreadsheet, which estimated future demands by multiplying annual equivalent dwelling unit (EDUs) growth by the historical 10-year running average. It should be noted that AMWC's annual water demand from 1997 through 2008 was over 2,000 MG, peaking in 2007 at 2,208 MG. Annual water demands since 2007 have steadily declined to current levels due to AMWC's conservation efforts. The future water demands shown should be considered conservative.

Table 4-2 Retail: Use for Potable and Non-Potable Water - Projected					
Use Type	Projected Water Use (MG)				
	2025	2030	2035	2040	2045
Single Family	1,221	1,293	1,342	1,395	1,450
Multi-Family	152	161	167	174	181
Commercial	142	151	156	162	169
Industrial	2	1	1	2	2
Landscape	132	140	146	151	157
Losses	152	162	168	174	181
TOTAL (MG)	**1,801**	**1,908**	**1,980**	**2,058**	**2,140**
NOTES: Future demands based on AMWC 2020 Demand Study.					

Table 4-3 summarizes projected water demands through 2045 including potable water only.

Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	**2025**	**2030**	**2035**	**2040**	**2045**
Potable Water (MG)	1,727	1,801	1,908	1,980	2,058	2,140
NOTES: Future demands based on AMWC Demand Study.						

Table 4-4 summarizes the distribution system water losses for each of the five years preceding the plan update.

Table 4-4 Retail: Last 5 Years of Water Loss Audit Reporting	
Reporting Period Start Date	Volume of Water Loss (MG)
01/2015	102
01/2016	105
01/2017	194
01/2018	129
01/2019	221
NOTES: Water loss based on AWWA water audit worksheet completed by AMWC.	

The individual audit reports from 2015 to 2019 are included in Appendix B.

4.2.6.2 Water Year Types

Water year types including a normal, single dry year and multiple dry years for the AMWC service area have been identify and reported in Submittal **Table 7-1**.

4.2.7 Characteristic Five-Year Water Use

CWC 10635(b)

Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following…

(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period. [Emphasis added]

(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.

AMWC does not currently have any water usage restrictions in place since the AMWC Board rescinded the water shortage condition on March 8, 2017. However, AMWC does enforce the following permanent prohibitions as requested by the State. The following prohibitions on the use of water are permanently in effect under this resolution, the Governor's Executive Order No. B-17-16, and subsequent regulations adopted by the State Water Resources Control Board:

- Wasteful Use of Water: No water user shall waste any water supplied through the distribution facilities of AMWC or through any well under agreement with AMWC.
- Plumbing leaks: The escape of water through breaks or leaks within the water user's plumbing or distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 24 hours after the water user discovers such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.

- Run-off from landscaped surfaces: Watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees, including agricultural irrigation, in a manner or to an extent which allows substantial amounts of excess water to run off onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
- Outdoor Watering Hours: Overhead watering of grass, lawns, ground-cover, shrubbery, open ground, crops, and trees, including agricultural irrigation, between the hours of 10 a.m. and 5 p.m. Overhead watering is any method of irrigation in which water is sprayed under pressure through the air to the ground surface, including but not limited to the use of devices such as sprinklers.
- Outdoor Watering Days: The overhead watering of grass, lawns, ground-cover, shrubbery, open ground, crops, and trees, including agricultural irrigation, shall be limited to Tuesdays, Thursdays, and Saturdays for properties with even-numbered street addresses, and Wednesdays, Fridays, and Sundays for properties with odd-numbered street addresses. The overhead watering of grass, lawns, ground-cover, shrubbery, open ground, crops, and trees, including agricultural irrigation, on Mondays on any property within the service area of AMWC is prohibited.
- Irrigation After Rain Event: Watering of outdoor landscapes during and up to 48 hours after measurable rainfall.
- Washing of hard-surfaced areas: Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, except under the following conditions: 1) to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device; or 2) if a low-volume, high-pressure cleaning machine or a low-volume high-pressure water broom is used.
- Washing of Vehicles: Using a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.
- Decorative Water Features: The use of potable water in decorative water features that do not recirculate the water.
- Irrigation of Median Turf: Irrigation with potable water of ornamental turf on public street medians.
- New Construction Irrigation: Irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or micro-spray systems.

The permanent water use prohibitions described above are required reduction measures associated with AMWC's 2020 Water Shortage Contingency Plan (WSCP) mandated shortage levels 1 and 2. Since AMWC is currently implementing actions to reduce water use, future demands presented in this UWMP update (**Tables 4-2** and **4-3**) assume that the characteristic use represents constrained demands. **Table 4-4a** provides a summary of the characteristic five-year water use with and without the normal Stages 1 and 2 conservation actions.

Table 4-4a: Characteristic Five-Year Water Use

	2021	2022	2023	2024	2025
Constrained Potable and Raw Water (MG) with conservation	1,793	1,806	1,803	1,787	1,801
Unconstrained Potable and Raw Water (MG) with 10% increase	1,972	1,987	1,983	1,966	1,981
NOTES: Future demands based on AMWC Demand Study.					

4.3 Worksheets and Reporting Tables

All required worksheets and reporting tables have been provided throughout this Chapter.

4.4 Water Use for Lower Income Households

Law

> ***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 Section 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.*

AMWC does not account for water savings from codes, standards, ordinances, or transportation and land use plans that are also known as "passive savings". However, for new development within the City of Atascadero builders are required to implement water efficient landscape and irrigation per the City's building code. These various factors generally decrease the water use for new and future customers, compared to historical customers.

Lower income residential demands are included in AMWC's future demand projections via housing projections by the City of Atascadero, who are required to plan for lower income residential units within the City limits.

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections?	No
If "Yes" to above, state the section/page where citations of the codes, are found.	-
Are Lower Income Residential Demands Included In Projections?	Yes

4.5 Climate Change Considerations

Law

> ***CWC 10635***
> *(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following…*
> *(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.*

With respect to climate change, AMWC has not participated in or conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for AMWC's groundwater supply were incorporated into the Atascadero Basin Groundwater Sustainability Plan (GSP) and Chapter 6 of the Atascadero Basin GSP has been included in Appendix A.

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CHAPTER 5 SBX7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

New Requirements for 2020 Update

With the adoption of the Water Conservation Act of 2009, also known as the SB X7-7, 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 2020 and 2025 in order to help the State achieve the 20 percent reduction. Per the Water Code there are no new requirements for this chapter of the UWMP 2020 update.

5.1 Guidance for Wholesale Suppliers

Law

CWC 10608.12. (w)

"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.

AMWC is a retail water supplier and this section does not apply.

5.2 SB X7-7 Forms and Summary Tables

5.2.1 SB X7-7 Verification Form (Baselines and Targets)

AMWC's SB X7-7 Verification Form submitted for the 2015 UWMP has been included as a reference document in the 2020 UWMP as Appendix C.

5.2.2 SB X7-7 2020 Compliance Form

AMWC has completed the 2020 SB X7-7 Compliance Form and included as Appendix D.

5.2.3 Submittal Tables 5-1 and 5-2

Submittal **Table 5-1** and **Table 5-2** from the 2020 SB X7-7 Compliance are included in Section 5.5.

5.2.4 Regional UWMP/Regional Alliance

AMWC has developed an UWMP that reports solely on its service area and will not be participating in a regional UWMP update.

5.3 Baseline and Target Calculations for 2020 UWMPs

Suppliers that have submitted a 2015 UWMP with the SB X7-7 Verification Form and have not had a change to their service area will not need to recalculate their baselines and targets in their 2020 UWMPs.

5.3.1 Supplier Submitted 2015 UMWP, No Change to Service Area

AMWC submitted a 2015 UWMP and has had no change to the service area since the submittal of the plan.

5.3.2 Supplier Did Not Submit 2015 UWMP

This topic does not apply to AMWC.

5.3.3 Supplier Newly Subject to UWMP Requirements

This topic does not apply to AMWC.

5.3.4 Distribution Area Expansion

This topic does not apply to AMWC.

5.3.5 Distribution Area Contraction

This topic does not apply to AMWC.

5.3.6 Large Partial Customers Become Whole Customers

This topic does not apply to AMWC.

5.4 Methods for Calculating Population and Gross Water Use

5.4.1 Service Area Population

Law

> ***CWC 10608.20***
> *(e) An urban retail water supplier shall include in its urban water management plan due in 2010…the baseline 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.*

Since the City of Atascadero makes up 92% of the AMWC service area, the Department of Finance 2020 population data was used for the City and an estimated persons-per-connection were used for the services located within the County portion of the service area.

5.4.2 Gross Water Use

Law

> ***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.*

Historical gross water use for this UWMP was obtained from AMWC's Demand Study for years 1996-2008.

5.5 2020 Compliance Daily Per-Capita Water Use (GPCD)

Law

CWC 10608.12
(f) "Compliance daily per-capita water use" means the gross water use during the final year of the reporting period…

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.

The baseline daily per capita water use for AMWC for this UWMP update is shown in **Table 5-1**.

Table 5-1: Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1996*	*2005*	*198*	*158*
5 Year	*2004*	*2008*	*189*	
*All values are in Gallons per Capita per Day (GPCD)				

AMWC has not applied any adjustments to the 2020 gross water use for this UWMP update.

Table 5-2: 2020 Compliance

2020 GPCD			2020 Confirmed Target GPCD	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD	2020 TOTAL Adjustments	Adjusted 2020 GPCD		
146	0	146	158	Y
**All values are in Gallons per Capita per Day (GPCD)*				

5.5.1 2020 Adjustments for Factors Outside of Supplier's Control

Law

CWC 10608.24
(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.

Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, Methodology 4
This section discusses adjustments to compliance-year GPCD because of changes in distribution area caused by mergers, annexation, and other scenarios that occur between the baseline and compliance years.

AMWC has not included any adjustments (including Extraordinary Institutional Water Use, Economic Adjustment (CII), or Weather Normalization) for their 2020 GPCD compliance.

5.5.2 Special Situations

AMWC does not have any special situations that require them to recalculate their baselines and 2020 Target in the 2020 UWMP.

5.5.3 If Supplier Does Not Meet 2020 Target

As shown in **Table 5-2**, AMWC has met the 2020 GPCD compliance target.

5.6 Regional Alliance

AMWC has developed an UWMP that reports solely on its service area and will not be participating in a regional UWMP update and SB X7-7 compliance will be for the AMWC service area only.

CHAPTER 6 WATER SUPPLY CHARACTERIZATION

New Requirements for 2020 Update

Per Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- ❑ The new requirements for a water supply analysis are largely in the application of that analysis to the new DRA, WSCP, and consideration of climate change in future projections.
- ❑ The conclusions drawn from the water supply characterization integrate into a specific understanding of a Supplier's new drought risk in the DRA and inform the management and mitigation actions a Supplier must address in the newly required WSCP, along with consideration of climate change and coordination with land use and planning authorities for future projections. For example, an analysis that concludes that a water supply portfolio is reliable under all conditions conceivable may have fewer supply augmentation actions or demand management actions in a WSCP.
- ❑ Water supply analysis conclusions translate into a realistic DRA and implementable actions listed in the WSCP in the event of water shortage conditions.

6.1 Water Supply Analysis Overview

Law

CWC 10631 (b)
Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier [in five-year increments to 20 years or as far as data is available] providing supporting and related information, including all of the following:

(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(3) For any planned sources of water supply, a description of the measures that are being undertaken to acquire and develop those water supplies.

CWC 10631 (h)
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 (f). 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 (f).

6.2 Water Supply Characterization

6.2.1 Purchased or Imported Water

The Nacimiento Water Project (NWP) regional raw water transmission facility delivers water from Lake Nacimiento to communities in San Luis Obispo County. The NWP includes 45 miles of pipeline ranging from 12 inches to 36 inches in diameter, an intake structure at Nacimiento Lake, three pump stations ranging from 1,200 horsepower (hp) to 3,500 hp, and three water storage tanks ranging from 300,000 gallons to 850,000 gallons. The NWP is designed to deliver

15,750 acre-feet of water per year (AFY) to participating agencies. AMWC has contracted for 3,244 AFY, which will significantly improve its ability to meet the current and future water needs of its customers. Currently, AMWC receives 2,000 AFY from the NWP to recharge the Atascadero Basin on an as-needed basis. AMWC contracted to allow peaking off of the NWP pipeline and can obtain its full subscription over a 4-month period to allow maximum deliveries in the peak summer use season.

The San Luis Obispo County Flood Control and Water Conservation District (District) was the lead agency for the $190 million NWP. In 2004, AMWC entered into a Delivery Entitlement Contract with the County for participation in the project, which is included in Appendix E of this UWMP. Other agencies currently participating in the project are the City Paso Robles, Templeton Community Services District, and the City of San Luis Obispo. Construction of the project is complete, and AMWC began taking deliveries of water in the summer of 2012. Up to 2,000-3,000 acre feet per year is delivered to AMWC for discharge into a 1.6 acre recharge basin over a 4 to 6 month period in summer/fall. Existing downstream wells draw a blend of recharged surface water and groundwater for AMWC customers.

For the purpose of this UWMP, the NWP supply is assumed to be 100% reliable based on the findings from "Nacimiento Reservoir Reliability as a Water Source for San Luis Obispo County" dated October 2002 and prepared by Boyle Engineering Corporation. The findings from this report are included in the final Nacimiento Water Project Environmental Impact Report dated December 2003 and prepared by Marine Research Specialists, which states that the Nacimiento Water Project can be considered 100% reliable based on evaluation of historical usage and drought conditions impacting the Nacimiento Reservoir over the past 40 years. As a result of this analysis, AMWC plans on 100% of its supplemental water supply (from the NWP) to be available in single dry and multiple dry years. A website link to the final EIR for Nacimiento Water Project is provided below:

- http://www.slocounty.ca.gov/PW/NWP/General_Project_Information/reports/EIRFinal.htm

However, if temporary and/or permanent water shortage conditions exist the San Luis Obispo County Flood Control and Water Conservation District could impose the following requirements as stated in the agreement for Nacimiento deliveries:

> *"The District may temporarily discontinue or reduce the amount of Nacimiento Project Water to be furnished to the Participant during such time as the District is maintaining, repairing, replacing, investigating, or inspecting any of the portions of the Nacimiento Facilities necessary for the furnishing of water to the Participant. Insofar as it is feasible, the District shall give the Participant notice in advance of any such temporary discontinuance or reduction, except in the case of emergency, in which case no notice need be given. In the event of such discontinuance or reduction, the District will upon resumption of service, deliver, as nearly as may be feasible, the quantity of Nacimiento Project Water which would have been furnished to the Participant in the absence of such discontinuance or reduction. Notwithstanding the foregoing, under no circumstances shall the Participant be relieved of any obligation to make Contract Payments as a result of such temporary discontinuance or reduction of Nacimiento Project Water.*
>
> *(A) Temporary Shortages. In any Water Year in which there may occur a shortage or interruption due to drought or other temporary cause in the supply of the Nacimiento Reservoir Water available for delivery by the District to the Participant, to the Other Participants and/or to the Reserve Water Customers, with the result that the amount of such supply is less than the total of: (i) the Delivery Entitlement and (ii) the Other Delivery Entitlements, plus (iii) the amount of the District's obligations to the Reserve Water Customers for that Water Year, the District shall calculate the amount of said reduced supply of water available to the District for use as Nacimiento Project Water and shall apportion the reduced supply.*
>
> *(B) Permanent Shortages. In the event that there is a reduction in the supply of Nacimiento Reservoir Water provided to the District under the Master Water Contract, which notwithstanding the preventative or remedial measures taken by the Monterey Water Agency, threatens or causes a permanent shortage in the amount of Nacimiento Reservoir Water available to the District under the Master Water Contract, with the result that the District concludes such supply will, for an indefinite period extending beyond the current Water Year, be less*

than Seventeen Thousand Five Hundred (17,500) Acre-Feet, the District shall calculate and apportion the permanently reduced supply of water. [1]

Through this supply source, AMWC has a maximum supply capacity of 1,058 MGY (3,244 AFY) with a typical annual delivery of 652 MGY (2,000 AFY) to serve demands. Based on the existing infrastructure of the NWP and contractual obligations, between AMWC and the County, this water supply source is considered 100% reliable and available during normal, single and multiple dry year conditions.

6.2.2 Groundwater

Law

CWC 10631 (b)(4)
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) The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), 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 for basins underlying the urban water supplier's service area.

(B) 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 a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin 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 coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).

(C) 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.

(D) 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.

AMWC pumps groundwater from two distinct yet interrelated groundwater sources, the Salinas River Underflow and the Salinas Valley Groundwater Basin - Atascadero Area No. 3-004.11 (DWR Bulletin 118) also known as the Atascadero Basin. AMWC operates seven active wells (including wells 1B, 3A, 4, 5, 5A, 16, and 19) pumping from Salinas River Underflow with a total pumping capacity of 3,360 gpm (1,766 MGY). In addition, AMWC operates seven active wells (including wells 6A, 7, 8A, 9A, 10, 12, 25, and 26) pumping from the Atascadero Basin with a total pumping capacity of 4,675 gpm (2,457 MGY). The AMWC service area, City of Atascadero, and the Atascadero Basin are shown in **Figure 6-1**.

[1] Nacimiento Project Water Delivery Entitlement Contact with Atascadero Mutual Water Company

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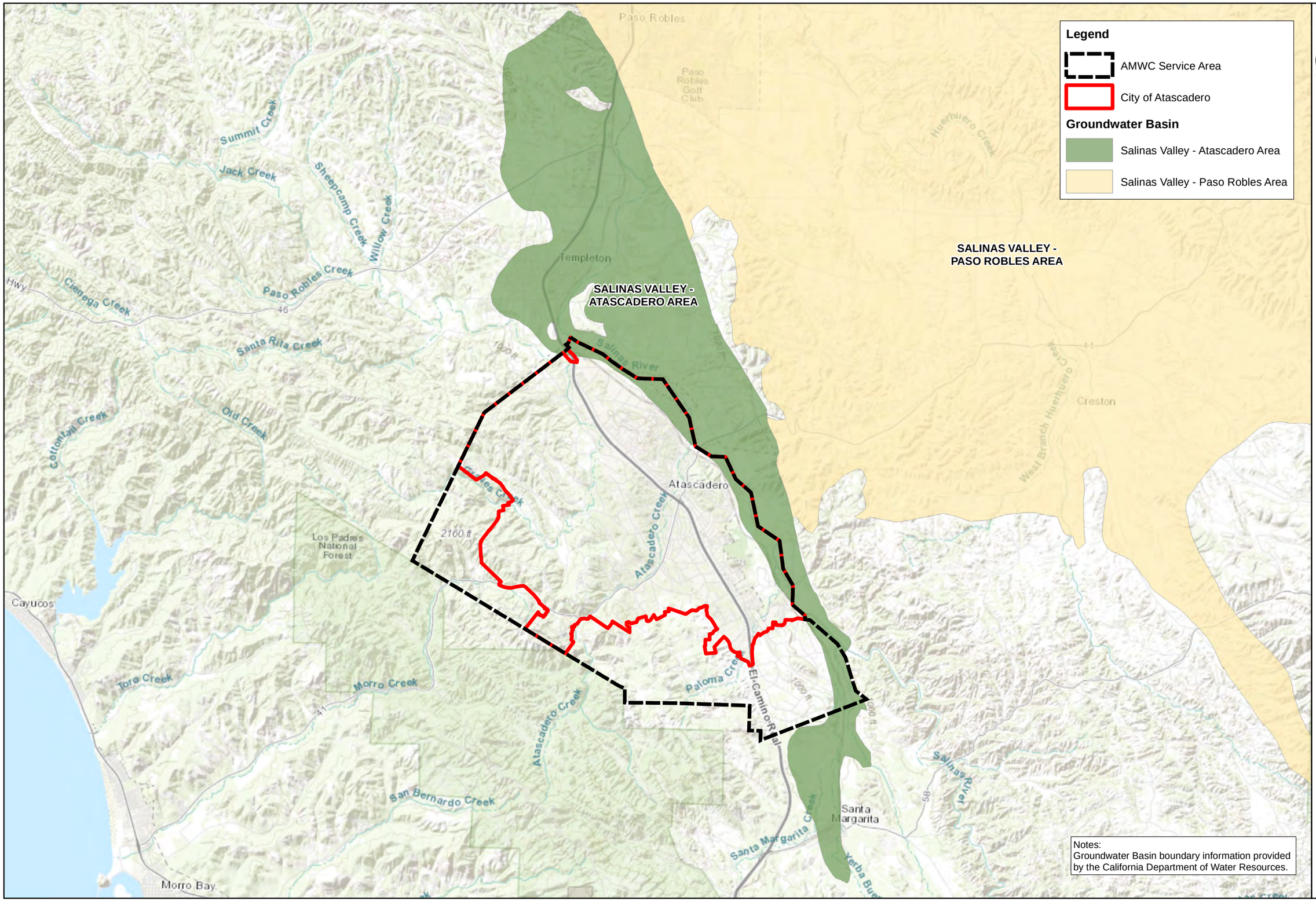

Notes:
Groundwater Basin boundary information provided by the California Department of Water Resources.

Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 6-1:

Salinas Valley Groundwater Basin

Scale = NTS

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6.2.2.1 Basin Description

The Draft October 2019 Atascadero Groundwater Sustainability Plan (GSP) included the following discussion of the Atascadero Basin:

> *The Basin is a narrow structural northwest-trending trough that extends from the Santa Margarita area at its southern end to the City of Paso Robles in the north. The Basin is bounded by the Santa Lucia Range on the west. The ground surface elevation of the Basin ranges from approximately 1,300 feet above mean sea level (msl) in the highlands at the northern tip of the Basin to approximately 700 feet above msl where the Salinas River exits the Basin to the north. The southern tip of the Basin is approximately 1,000 feet msl. The middle part of the Basin forms an elongate narrow valley along the Salinas River, flanked by areas of variable topographic relief. The Basin encompasses an area of approximately 19,800 acres.*
>
> *The Basin boundary is defined in California Department of Water Resources (DWR) Bulletin 118 (DWR, 2016). It is generally bounded by geologic units with low permeability, sediments with poor groundwater quality, rock, and structural faults. Along a portion of the northeast boundary, sediments of the Basin are continuous with the adjacent Paso Robles Area Groundwater Subbasin of the Salinas Valley Basin (Paso Robles Basin). Specific Basin lateral boundaries include the following:*
>
> *The northwestern, western, and southern boundaries of the Basin are defined by the contact of Basin sediments with older, relatively impermeable geologic units, including Tertiary-age consolidated sedimentary beds, Cretaceous-age metamorphic rocks, and granitic rock.*
>
> *Along the northern portion of the eastern boundary, north of Templeton, the Rinconada Fault defines the eastern boundary of the Basin and is assumed to form a leaky hydraulic barrier between the Paso Robles Basin and the Basin.*
>
> *Along the southern portion of the eastern boundary, south of Templeton, between Atascadero and Creston, the Rinconada Fault juxtaposes Monterey Formation rocks and other bedrock units with the Paso Robles Formation basin sediments.*
>
> *The bottom of the Basin is generally defined as the base of the Paso Robles Formation, which is an irregular surface formed as the result of folding, faulting, and erosion (Fugro, 2002). The exception to this is the Santa Margarita area at the southern end of the Basin. In this area, the bottom of the Basin is defined as the base of the Alluvium. The Basin boundary and bottom are not considered absolute barriers to flow because some of the geologic units underlying the Paso Robles Formation produce sufficient quantities of water, but the water is generally of poor quality and it is therefore not considered part of the Basin.*

6.2.2.2 Multiple Groundwater Basins

AMWC pumps water from the Atascadero Basin and the Salinas River Underflow. The Salinas River Underflow alluvial pumping is considered a surface water source by the SWRCB. AMWC has riparian rights, pre-appropriative rights, and appropriative rights via license to the Salinas River alluvial waters.

6.2.2.3 Other Considerations

Per the Atascadero Groundwater Basin website, the following provides background information for the groundwater sustainability agency (GSA) for the Atascadero Basin.

> *In 2014, the State legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA requires that high and medium priority basins comply with the new law. At that time, the Atascadero Basin was still part of the Paso Robles Area Subbasin which was a high priority basin. In 2016, the Atascadero Basin was divided from the Paso Robles Area Subbasin based on information that shows the Rinconada Fault is a significant barrier to groundwater flow.*

The County of San Luis Obispo, Templeton Community Service District, City of Atascadero, City of Paso Robles, Atascadero Mutual Water Company, and others have entered into a memorandum of agreement creating a groundwater sustainability agency (GSA) for the Atascadero Basin in accordance with SGMA to prepare a groundwater sustainability plan (GSP).

The property owners overlying the Atascadero Basin, in collaboration with the Templeton Community Services District (TCSD), City of Atascadero (City), and Atascadero Mutual Water Company (AMWC), are working together to develop a groundwater sustainability agency (GSA) that will develop and implement a groundwater sustainability plan (GSP) for the Atascadero Basin (separate from the Paso Basin) in compliance with the new Sustainable Groundwater Management Act (SGMA). SGMA is made up of three separate pieces of legislation — AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley). Several recent studies have confirmed, the Atascadero Basin is hydrologically distinct from the Paso Basin. The San Luis Obispo County Board of Supervisors has distinguished the Atascadero Basin in its Resource Capacity Study and excluded the Atascadero Basin from the urgency ordinance it adopted in August 2013. The ability to manage demand in the Atascadero Basin is distinctly different from the Paso Basin. In 2009, urban use accounted for approximately 75% of the groundwater being pumped from the Atascadero Basin. The urban pumpers have greater flexibility in managing demand than pumpers that are irrigating permanent crops. In addition, water from the Nacimiento Water Project (NWP) has a greater influence on groundwater levels in the Atascadero Basin than it does on water levels in the Paso Basin. Even before the urban pumpers began discharging water from the NWP into the Atascadero Basin, groundwater levels were stable and only showed seasonal variations. Both AMWC and the TCSD are currently seeking to increase their use of water from the NWP in the Atascadero Basin to over 3,500 acre-feet/year from 2,250 acre-feet/year, which will ensure the long-term sustainability of groundwater for all users in the basin.

The GSA is currently developing the Atascadero Basin GSP and a link to the draft plan is included at the following website: **http://atascaderobasin.com/**

In May 2018, DWR designated the Atascadero Basin as a very low priority basin and therefore no longer required to comply with SGMA. However, the GSA decided on October 3, 2018, that it will continue to proactively manage the groundwater resources in the Atascadero Basin.

6.2.2.4 Groundwater Volume Pumped in Last Five Years

Law

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:

(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.

Table 6-1 provides an overview of the groundwater sources and the annual quantity pumped to meet the demands of the AMWC customers from 2016 to 2020.

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated					
Groundwater Type	**Location or Basin Name**	**2016**	**2017**	**2018**	**2019**	**2020**
Alluvial Basin	Atascadero Basin	498	556	636	769	1,128
Alluvial Basin	Salinas River Underflow (Groundwater under the influence of surface water)	974	1,086	1,016	834	599
	TOTAL (MG)	**1,472**	**1,642**	**1,652**	**1,603**	**1,727**
NOTES: Groundwater pumped from the Atascadero Basin includes imported water from the NWP that is used to recharge the basin.						

Based on **Table 6-1**, AMWC pumped approximately 44% of the required supply from the Atascadero Basin and 56% from the Salinas River Underflow. However, AMWC has the operational flexibility to modify groundwater pumping from the two groundwater sources as necessary to serve demands.

Through this supply source, AMWC has a maximum supply capacity of 4,223 MGY to serve demands. Based on redundancy within AMWC's existing well field and groundwater management practices under the Atascadero Groundwater Basin GSA, this water supply source is considered 100% reliable and available during normal, single and multiple dry year conditions.

6.2.3 Surface Water

The Salinas River Underflow alluvial pumping is considered a surface water source by the SWRCB. AMWC has riparian rights, pre-appropriative rights, and appropriative rights via license to the Salinas River alluvial waters.

In addition, AMWC receives imported surface water from the County of San Luis Obispo as part of the Nacimiento Water Project (a surface water supply source) as described in Section 6.1. NWP water is used by AMWC to recharge the Atascadero Basin.

6.2.4 Stormwater

AMWC does not currently or intend to supplement water supply demands through the capture and reuse of stormwater.

6.2.5 Wastewater and Recycled Water

Law

> ***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, 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.

AMWC does not provide recycled water to customers within its service area. The City of Atascadero collects, treats, and discharges wastewater for the City at the Water Reclamation Facility (WRF). Treated effluent (secondary, undisinfected) is percolated in onsite earthen basins for final polishing treatment through the soil. An irrigation well was installed downstream of the percolation basins in the late 1990's to draw mixed treated effluent and groundwater, which is pumped to a holding pond at the Chalk Mountain Golf Course for reuse as irrigation water. However, per the Water Code this process is not considered a reportable use of recycled water.

6.2.5.1 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.

AMWC does not currently or intend to provide recycled water service to customers within the service area.

6.2.5.2 Wastewater Collection, Treatment, and Disposal

Law

CWC 10633 (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.

AMWC does not provide wastewater collection, treatment, or disposal services for its customers. Wastewater collection, treatment, and disposal within the AMWC water service area is provided by the City of Atascadero or private onsite septic disposal systems. **Tables 6-2** and 6-3 provides a summary of the volume of wastewater collected for calendar year 2020 by the City of Atascadero. Flows from the City's WRF percolate through the Salinas River alluvium and Paso Robles formation and act as a source of recharge for the Atascadero Basin.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service	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 Atascadero	Metered	457	City of Atascadero	City of Atascadero Water Reclamation Facility	Yes	No
Total Wastewater Collected from Service Area in 2020 (MG):		457				

Tables 6-3 provides a summary of the volume of wastewater treated and disposed of for calendar year 2020 by the City of Atascadero.

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020											
☐	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 (*optional*)	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2020 volumes				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
City of Atascadero Water Reclamation Facility	Percolation ponds east of the Salinas River	Percolation ponds east of the Salinas River	3400100001	Percolation ponds	No	Secondary, Undisinfected	457	457	0	0	No
						Total (MG)	457	457	0	0	

6.2.5.3 Recycled Water System Description

Law

CWC 10633 (c)

(b) 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.

Recycled water is not currently being used in AMWC's service area, However, flows from the City's WRF percolate through the Salinas River alluvium and Paso Robles formation and act as a source of recharge for the Atascadero Basin.

6.2.5.4 Potential, Current, and Projected Recycle Water Uses

Law

CWC 10633

(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.

(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) (Provide) a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

AMWC does not currently or intend to provide recycled water service to customers within the service area.

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☑	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:	
Name of Supplier Operating the Recycled Water Distribution System	
Supplemental Water Added in 2020	
Source of 2020 Supplemented Water	

Beneficial Use Type	Potential Beneficial Use of Recycled Water	General Description of 2020 Uses	Level of Treatment	2020	2025	2030	2035	2040	2045
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Total (MG):	N/A	N/A	N/A	N/A	N/A	N/A

As shown in **Table 6-5**, recycled water was not used in 2015 nor projected for use in 2020.

Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual			
☑	Recycled water was not used in 2015 nor projected for use in 2020 The supplier will not complete the table below.		
Use Type		**2015 Projection for 2020**	**2020 Actual Use**
N/A		N/A	N/A
Total (MG):		N/A	N/A

6.2.5.5 Actions to Encourage and Optimize Future Recycled Water Use

Law

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.

AMWC does not currently or intend to provide recycled water service to customers within the service area. The City does not currently produce recycled water that could be used by customers within the existing AMWC service area. No infrastructure exists to allow the distribution of recycled water for beneficial use.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
6-9	Provide page location of narrative in UWMP		
Name of Action	**Description**	**Planned Implementation Year**	**Expected Increase in Recycled Water Use**
N/A	N/A	N/A	N/A
		Total	0

6.2.6 Desalinated Water Opportunities

Law

CWC 10631
(g) 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 AMWC service area is roughly 15 miles east of the Pacific Ocean and due to this separation, desalinated water projects are not feasible.

6.2.7 Water Exchanges and Transfers

Law

CWC 10631 (c)
Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

AMWC does not anticipate any planned or potential future water exchanges or transfers. However, AMWC has an Emergnecy Water Supply Agreement with the County of San Luis Obispo to provide water from the AMWC system to County Service Area 23 and the Garden Farms Community Water District during emergency water shortage conditions. As of 2016, the County of San Luis Obispo has completed construction of an emergency intertie pipe between AMWC and Garden Farms Community Water District.

6.2.8 Future Water Projects

Law

CWC 10631
(f) 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.

AMWC does not anticipate being involved in any planned or potential future water projects or programs to increase its water supply over existing sources. AMWC will continue to participate in the Atascadero Basin GSA with other stakeholders in the Atascadero Basin.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☑	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.					
☐	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 of narrative location in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency (AFY)
NA	NA	NA	NA	NA	NA	NA

6.2.9 Summary of Existing and Planned Sources of Water

Law

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), providing supporting and related information, including all of the following…

(b)(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(h) 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 (f). 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 (f).

6.2.9.1 Description of Supplies

AMWC's production strategy to serve customer demands is to pump from the Salinas River Underflow (alluvial wells) to the fullest extent possible, and supplement demands from the Atascadero Basin (deep wells) if demands exceed the alluvial pumping capabilities. Deliveries of water from the NWP are based on well levels in the deep well field (Atascadero Basin). When the static water level in monitoring well No. 11 reaches 50'± below ground surface, AMWC will begin deliveries of NWP water to the Atascadero Basin. Essentially the groundwater supply reported for the Atascadero Basin would also include the imported water received from the NWP.

As discussed previously, AMWC's existing water supply sources include local groundwater and imported surface water supplies. Based on historical production information provided by AMWC, the Atascadero Groundwater Basin GSP, and ongoing water resource planning efforts it was assumed that AMWC's water supplies are considered reliable and 100% available during normal, single and multiple drought conditions.

6.2.9.2 Quantification of Supplies

Table 6-8 provides an overview of the sources and volume of water that were available to AMWC for 2020. It should be noted that AMWC receives imported surface water from the County of San Luis Obispo as part of the Nacimiento Water Project, which is used by AMWC to recharge the Atascadero Basin. It should be noted that AMWC's annual water demand from 1997 through 2008 was over 2,000 MG, peaking in 2007 at 2,208 MG. Annual water demands since 2007 have steadily declined to their current levels due to AMWC's conservation efforts. The future water demands shown should be considered conservative.

Table 6-8 Retail: Water Supplies — Actual

Water Supply	Additional Detail on Water Supply	2020		
		Actual Volume	Water Quality	Total Right or Safe Yield (*optional*)
Groundwater	Atascadero Basin	1,128	Drinking Water	
Surface water	Salinas River Underflow (Groundwater under the influence of surface water)	599	Drinking Water	
	Total (MG)	**1,727**		
NOTES: Groundwater pumped from the Atascadero Basin includes imported water from the NWP that is used to recharge the basin.				

Table 6-9 provides an overview of the projected water supplies available to AMWC to serve future demands through 2045.

Table 6-9 Retail: Water Supplies — Projected						
Water Supply	Description	Projected Water Supply				
		2025	2030	2035	2040	2045
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Groundwater	Atascadero Basin	792	840	871	906	942
Surface Water	Salinas River Underflow	1009	1068	1109	1152	1198
Total (MG)		**1,801**	**1,908**	**1,980**	**2,058**	**2,140**
NOTES: Groundwater pumped from the Atascadero Basin includes imported water from the NWP that is used to recharge the basin.						

For the UWMP it is assumed that AMWC will receive an annual allocation of 652 MGY (2,000 AFY) as needed from the NWP to supplement/offset future groundwater pumping from the Atascadero Basin, however as stated previously, AMWC has contracted for 1,058 MGY (3,244 AFY) of water from the project, which could be fully utilized as needed.

6.2.10 Special Conditions

The following provides a summary of special conditions identified in the UWMP guidebook and their impact on future water supplies.

6.2.10.1 Climate Change Effects

With respect to climate change, AMWC has not participated in or conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for AMWC's groundwater supply were incorporated into the Atascadero Basin Groundwater Sustainability Plan (GSP) and Chapter 6 of the Atascadero Basin GSP has been included in Appendix A.

6.2.10.2 Regulatory Conditions and Project Development

There are no known regulatory changes that would impact future water characterization within the AMWC service area.

6.2.10.3 Other Locally Applicable Criteria

There are no known local flow criteria that would impact future water supply within the AMWC service area.

6.3 Submittal Tables

All required submittal tables for AMWC's water supply characterization are included throughout this chapter.

6.4 Energy Use

Law

CWC 10631.2. (a)
In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:

(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.

The water system is comprised of approximately 240 miles of pipeline ranging in size from 4 inches to 24 inches, with nine storage tanks that range in size from 120,000 gallons to 4.8 million gallons. There are 15 active wells, eight booster stations, five treatment buildings, and 20 pressure-reducing stations located throughout the system. In addition, there are over 10,000 customer service connections, 3,700 valves, and 1,700 fire hydrants. Elevations in the system vary from 800 feet, at the well fields along the Salinas River, to 1,916 feet at the tank located in Summit Hills. There are three reporting options included in the guidebook based on available data which include the following:

- ❑ Option 1: Energy Intensity – Water Supply Process Approach by the individual Water Management Processes
- ❑ Option 2: Energy Intensity – Total Utility Approach using the sum of all Water Management Processes and total energy for the system
- ❑ Option 3: Energy Intensity – Multiple Water Delivery Products by breaking down percentages for retail potable, retail non-potable, agricultural, etc.

Table 6-10 summarizes the AMWC's supply facilities energy intensity using Option 2: Energy Intensity – Total Utility Approach.

Table 6-10: Energy Intensity - Total Utility Approach				
Enter Start Date for Period	1/1/2020	**Urban Water Supplier Operational Control**		
End Date	12/31/2020	**Sum of all Water Processes**	**Non-Consequential Hydropower**	
		Total Utility	**Hydropower**	**Net Utility**
Volume of Water Entering Process (MG)		1,727		1,727
Energy Consumed (kWh)		3,329,935		3,329,935
Energy Intensity (kWh/MG)		1,928		1,928

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CHAPTER 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

New Requirements

Per the Water Code, the following new requirements are necessary for this chapter of the UWMP 2020 update.

- ❑ The new UWMP requirements appear in the application of new criteria to the Water Use Analysis in Chapter 4, the Water Supply Analysis in Chapter 6, and the resulting Water Service Reliability Assessment in this chapter—including the requirement for a five-consecutive dry years analysis compared to the 2015 UWMPs, which included only a three-year analysis.
- ❑ A Drought Risk Assessment (DRA) is now also required under Water Code Section 10635, and it must be prepared as a component of the 2020 UWMP. The DRA requires a methodical assessment of water supplies and water uses under an assumed drought period that lasts five consecutive years.

7.1 Introduction

Assessing water service reliability is the fundamental purpose for an urban water supplier to prepare and update their UWMP. Water service reliability reflects the Supplier's ability to meet the water needs of its customers with water supplies under varying conditions. AMWC's UWMP considers the reliability of meeting customer water use by analyzing plausible hydrological variability, regulatory variability, climate conditions, and other factors that could affect AMWC's water supply and its customers' water uses. This chapter synthesizes the details imbedded in the other chapters (including 4, 6, 8, and 9) and it provides a rational basis for future decision-making related to supply management, demand management, and project development. In addition, this chapter includes a new requirement for a DRA that enables AMWC to evaluate its risk under a severe drought period lasting for the next five consecutive years.

7.2 Water Service Reliability Assessment

Law

> ***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.*

AMWC has never had a single year or multiple dry years in which it did not meet 100% of its demand, regardless of regional hydrology. Therefore, there is no basis in the hydrologic record for reducing supply reliability based upon single and/or multiple dry year conditions when imported water supply is available in addition to historical groundwater production. On this assumption, AMWC's supply is presented as 100% reliable for single and multiple dry year periods as summarized in the following sections.

AMWC developed **Table 7-0**, which involved a preliminary climate change vulnerability screening (including impacts from extreme heat, water quality, sea level rise, flooding, and wildfire) for its water supplies.

The water service reliability assessment summarizes AMWC's expected water service reliability for a normal year, single dry year, and five consecutive dry years projections for 2025, 2030, 2035, and through 2040.

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Table 7-0: Preliminary Climate Change Vulnerability Screening for Water Supplies							
Item	**Assessment**	**Imported Water - Nacimiento Water Project**		**Groundwater - Atascadero Basin**		**Groundwater - Salinas River Underflow**	
		Response	**Level of Risk**	**Response**	**Level of Risk**	**Response**	**Level of Risk**
I. Water Supply and Demand							
1	Are the water supply diversions sensitive to climate change?	Yes	2	Yes	2	Yes	3
2	Is the water supply source affected by urban or agricultural water demand that might be climate sensitive?	Yes	2	Yes	2	Yes	2
3	Is groundwater a major supply source?	No	Not applicable	Yes	3	No	3
4	Does the water supply source rely on or could it be affected by snowmelt?	No	Not applicable	No	Not applicable	No	Not applicable
5	Does the water supply source come from or could it be affected by coastal aquifers? Has saltwater intrusion been a problem in the past?	No	Not applicable	No	Not applicable	No	Not applicable
6	Does the water supply source rely on or could it be affected by changes in stored water supplies?	Yes	Not applicable	No	Not applicable	Yes	Not applicable
II. Extreme Heat							
1	Could extreme heat impact operations of the water supply project or diversions?	No	Not applicable	No	Not applicable	No	Not applicable
2	Does the supply source rely on equipment or infrastructure that could be impacted by extreme or prolonged heat?	No	Not applicable	No	Not applicable	No	Not applicable
III. Water Quality							
1	Could water quality issues, such as low dissolved oxygen, algal blooms, disinfectant biproducts affect the water supply source?	Yes	1	No	Not applicable	No	Not applicable
2	Could reduction in assimilative capacity of a receiving water body affect the water supply source?	Yes	1	Yes	3	Yes	3
3	Could the water supply source be affected by water quality shifts during rainfall/runoff events?	Yes	1	Yes	1	Yes	3
IV. Sea Level Rise							
1	Is any of the water supply source infrastructure located in area that could be exposed to rising tides?	No	Not applicable	No	Not applicable	No	Not applicable
2	Could coastal erosion affect the water supply source?	No	Not applicable	No	Not applicable	No	Not applicable
3	Is the water supply source dependent on coastal structures, such as levees or breakwaters, for protection from flooding?	No	Not applicable	No	Not applicable	No	Not applicable
V. Flooding							
1	Is the water supply or any of its associated infrastructure located within the 200-year floodplain? Does the water supply source rely on flood protection infrastructure such as levees or dams?	Yes	2	Yes	3	Yes	4
VI. Wildfire							
1	Is the water supply source located in an area that is expected to experience an increase in wildfire activity or severity? Would a wildfire result in damage to the water supply source infrastructure or interruption of its ability to perform as designed? Could the water supply source be affected by an increase in wildfire activity or severity in an upstream watershed or other adjacent area?	Yes	1	No	Not applicable	No	Not applicable

Notes: Level of Risk: 1 - low, 3-medium, 5-high

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7.2.1 Service Reliability - Constraints on Water Sources

Law

> ***CWC 10631***
> *(b)(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.*

As described in Chapter 6, AMWC's water supply portfolio consists of imported water from the Nacimiento Water Project that is used to recharge the Atascadero Basin with a maximum current allocation of 1,058 MGY and groundwater pumping from the Salinas River Underflow and the Atascadero Basin with a maximum supply capacity of 4,223 MGY to serve demands. Based on redundancy within AMWC's existing well field and groundwater management practices under the Atascadero Groundwater Basin GSA, AMWC's water supply sources are considered 100% reliable and available during normal, single and multiple dry year conditions. AMWC has never had a single year or multiple dry years in which it did not pump 100% of its demand, regardless of regional hydrology.

As described in Section 6.2.2.2, AMWC is part of the Atascadero Basin GSA and will continue to proactively manage the groundwater resources in the Atascadero Basin to serve existing and future demands within the service area.

With respect to quality of groundwater, in 2019 AMWC received the results of water samples that were analyzed for perfluorooctanoic acid (PFOA) and perfluoroalkyl substances (PFOS) under a State Water Regional Control Board (SWRCB) order. The sampling results showed that four of AMWC's water supply wells (1B, 3A, 5, and 5A) had levels of PFOA between 3.8 and 26 parts per trillion (ppt) and PFOS between 4 and 32 ppt. The highest combined level of these contaminants detected in one well was 53 ppt. None of the wells had combined levels of these contaminants above the 70 ppt health advisory level established by the United States Environmental Protection Agency (USEPA). The USEPA's health advisory level for PFOA and PFOS offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

To address PFOA in the groundwater supply, AMWC has completed several studies to determine system impacts (both water quality and hydraulics) from blending of high PFOA well water with existing diluent well water. Based on the results of the studies and approval from the State, AMWC is currently blending groundwater to reduce PFOA and PFOS levels below the Response Level. AMWC is also in the design phase of a PFOA/PFOS treatment project and performing a pilot study to demonstrate performance and estimate the long-term operational costs of the most effective granular activated carbon (GAC) medias and ion exchange (IX) resins for removal of PFAS compounds.

With respect to water quality, AMWC's Consumer Confidence Report (2019) in Appendix F describes existing water quality. As shown AMWC's water supply meets all United States Environmental Protection Agency (US EPA) and SWRCB water quality standards.

7.2.2 Service Reliability - Year Type Characterization

To determine the typical normal, single dry year, and five consecutive dry years within the service area, AMWC reviewed historical rainfall data from the precipitation gauge station at 6575 Sycamore Road located at the AMWC corporation yard. The results of the historical rainfall data review are presented in **Figure 7-1**. This figure shows historical precipitation versus groundwater elevations with the use of NWP water to recharge the Atascadero Basin when needed. Well #11 is a monitoring well at the northerly end of AMWC's main well field, which is located within the Paso Robles Formation and is representative of water level in the aquifer.

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Figure 7-1: Rainfall Versus Groundwater Static Water Level

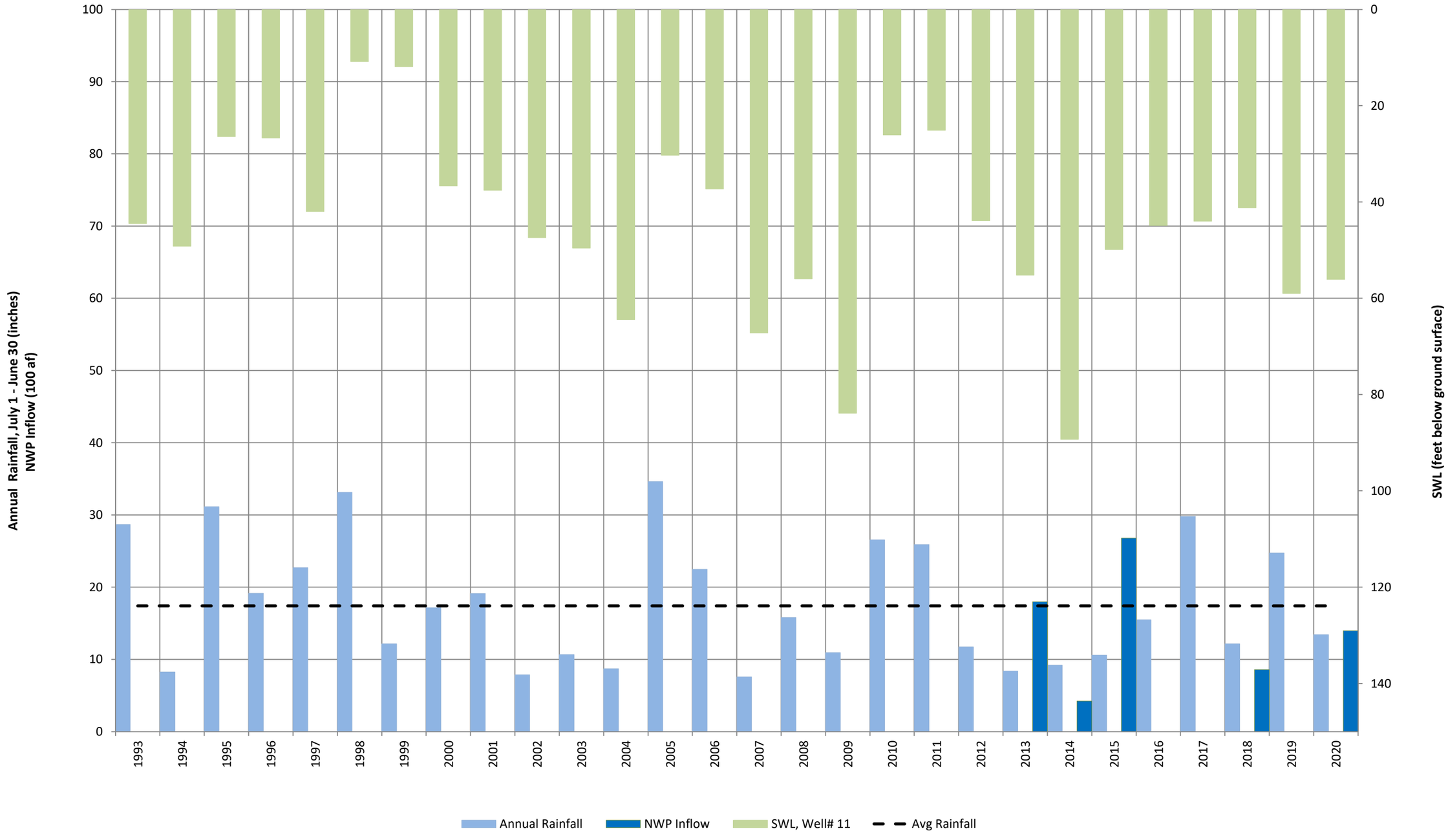

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Table 7-1 identifies the basis of water year data as required by the UWMP and identifies the volume of AMWC's water supply that was available to serve demands during those years. The "Volume Available" shown in **Table 7-1** represents AMWC's imported water allocation from the Nacimiento Water Project (1,058 MGY) and maximum groundwater pumping capacity (4,223 MGY) that was available during historical normal, single, and multiple dry year conditions.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	**Base Year**	**Available Supplies if Year Type Repeats**	
		☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP.	
		☑ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (MG)	**% of Average Supply**
Average Year	2000	4,223	100
Single-Dry Year	2012	5,281	125
Multiple-Dry Years 1st Year	2012	5,281	125
Multiple-Dry Years 2nd Year	2013	5,281	125
Multiple-Dry Years 3rd Year	2014	5,281	125
Multiple-Dry Years 4th Year	2015	5,281	125
Multiple-Dry Years 5th Year	2016	5,281	125
NOTE: The NWP was not available until 2004 and therefore not available for calendar year 2000.			

Table 7-1a supplements information in the **Table 7-1** above, in that it summarizes the actual water supply produced during historical normal, single, and multiple-dry year conditions to serve customer demands. Because of AMWC's forward thinking, regional water resource planning efforts, and groundwater management they have developed a robust water supply portfolio for serving existing and future customer demands. In addition, as seen in calendar years 2014 – 2016, AMWC's existing water shortage contingency plan policies and demand management measures (DMMs) were effective in implementing consumer conservation efforts to reduce overall system demand during state-wide drought conditions.

Table 7-1a: Historical Production			
Year Type	**Year**	**Actual Production (MGY)**	**% of Average Production**
Average Year	2000	2,082	100
Single-Dry Year	2012	1,875	90
Multiple-Dry Years 1st Year	2012	1,875	90
Multiple-Dry Years 2nd Year	2013	1,977	95
Multiple-Dry Years 3rd Year	2014	1,690	81
Multiple-Dry Years 4th Year	2015	1,439	69
Multiple-Dry Years 5th Year	2016	1,472	71
NOTES: % of Average Production in the table represents AMWC's ability to work with customers to reduce water demands during drought years and does not reflect supply limitations.			

7.2.3 Service Reliability - Supply and Demand Comparison

Law

CWC 10631 (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 long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive 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.

7.2.3.1 Water Service Reliability – Normal Year

Table 7-2 provides a summary of AMWC's projected supply and water demands through 2045. The future demand projections are based on future population projections as described in Section 3.4.1 and historical per capita demands including the implementation of the required SBX7-7 as described in Section 5.6. The future supply projections are based on the reasonably available groundwater and imported water volumes as described in Section 6.2.9. Based on the analysis of AMWC's current/projected water supply sources AMWC has sufficient resources to serve existing and future demands.

Table 7-2 Retail: Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
Difference	**0**	**0**	**0**	**0**	**0**

7.2.3.2 Water Service Reliability – Single Dry Year

Table 7-3 provides a summary of AMWC's projected supply and demand through 2045 for a single dry year.

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
Difference	**0**	**0**	**0**	**0**	**0**

7.2.3.3 Water Service Reliability – Five Consecutive Dry Years

Table 7-4 provides a summary of AMWC's projected supply and demand through 2045 for multiple dry years.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025	**2030**	**2035**	**2040**	**2045**
First year	Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
	Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
	Difference	**0**	**0**	**0**	**0**	**0**
Second year	Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
	Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
	Difference	**0**	**0**	**0**	**0**	**0**
Third year	Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
	Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
	Difference	**0**	**0**	**0**	**0**	**0**
Fourth year	Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
	Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
	Difference	**0**	**0**	**0**	**0**	**0**
Fifth year	Supply totals (MG)	1,801	1,908	1,980	2,058	2,140
	Demand totals (MG)	1,801	1,908	1,980	2,058	2,140
	Difference	**0**	**0**	**0**	**0**	**0**

7.2.4 Description of Management Tools and Options

Law

> ***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.*

AMWC coordinates closely with the Templeton Community Services District, City of Atascadero and the San Luis Obispo County Flood Control and Water Conservation District with respect to regional water resource management. AMWC has and will continue to participate in the following regional water resource planning efforts:

- ❑ Atascadero Basin GSA.
- ❑ California Statewide Groundwater Elevation Monitoring Program (CASGEM).
- ❑ Member of the San Luis Obispo County Water Resource Advisory Committee.
- ❑ Member of San Luis Obispo County Water Action Team.
- ❑ San Luis Obispo County 2012 Master Water Report – Master planning of regional water resources throughout the County of San Luis Obispo.
- ❑ 2003 Projected Water Supply and Demand Update – Based upon present studies, pumping records, land use designations and other information available to the public, this analysis is an update of a similar supply and demand study completed in 1997. The update was necessary at this time because of a change in the City of Atascadero's General Plan, possible changes in water use patterns, additional information concerning AMWC's water supply and pending decisions concerning supplemental water supplies, most notably the Nacimiento Water Project. The Water Supply and Demand Update provided the reasoning for AMWC participation in the Nacimiento Water Project to meet future peak water demand.

7.3 Drought Risk Assessment

Law

CWC 10635(b)
Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:

(1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.

(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.

(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.

(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.

7.3.1 DRA Data, Methods, and Basis for Water Shortage Conditions

The following information was used to support AMWC's DRA to identify water production and consumption to its customers and determine restrictions to supply sources:

- ❑ Large Water System Annual Report to The Drinking Water Program
- ❑ Annual AWWA Water Loss Audit Worksheet
- ❑ Atascadero Basin GSP
- ❑ AMWC 1971 – 2020 Demand Study
- ❑ Historical rainfall data from the precipitation gauge station at 6575 Sycamore Road located at the AMWC Corporation Yard
- ❑ Groundwater elevations using Well #11, which is a monitoring well at the northerly end of AMWC's main well field located within the Paso Robles Formation and is representative of water level in the aquifer

7.3.2 DRA Individual Water Source Reliability

As identified in Section 7.2.2, AMWC has never had a single year or multiple dry years in which it did not meet 100% of its demand, regardless of regional hydrology. Therefore, there is no basis in the hydrologic record for reducing supply reliability based upon single and/or multiple dry year conditions when imported water supply is available in addition to historical groundwater production. On this assumption, AMWC's supply is presented as 100% reliable for single and multiple dry year periods as summarized in the following sections.

7.3.3 DRA Total Water Supply and Use Comparison

Sustainable management of its existing groundwater resources through water-use efficiency measures and use of NWP supplemental water will allow AMWC to serve existing and future water demands during normal years, single dry years, or multiple dry years.

Table 7-5: Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)	
2021	**Total**
Gross Water Use	1,793
Total Supplies	1,793
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2022	**Total**
Gross Water Use [Use Worksheet]	1,806
Total Supplies [Supply Worksheet]	1,806
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2023	**Total**
Gross Water Use [Use Worksheet]	1,803
Total Supplies [Supply Worksheet]	1,803
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2024	**Total**
Gross Water Use [Use Worksheet]	1,787
Total Supplies [Supply Worksheet]	1,787
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2025	**Total**
Gross Water Use [Use Worksheet]	1,801
Total Supplies [Supply Worksheet]	1,801
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0

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CHAPTER 8 WATER SHORTAGE CONTINGENCY PLANNING

New Requirements

Per the Water Code the following new requirements are necessary for this chapter of the UWMP 2020 update.

- ❑ Key attributes of the water supply reliability analysis conducted pursuant to Water Code Section 10635. [Water Code Section 10632(a)(1)]
- ❑ Six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50-percent shortages and greater than 50-percent shortage. [Water Code Section 10632 (a)(3)(A)]
- ❑ Locally appropriate "shortage response actions" for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands. [Water Code Section 10632 (a)(4)]
- ❑ Procedures for conducting an annual water supply and demand assessment with prescribed elements. Under Water Code Section 10632.1, urban water Suppliers are required to submit, by July 1 of each year, beginning in the year following adoption of the 2020 UWMP, an annual water shortage assessment report to the California Department of Water Resources (DWR). [Water Code Section 10632 (a)(2)]
- ❑ Communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions. [Water Code Section 10632 (a)(5)]
- ❑ Monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements. [Water Code Section 10632(a)(9)]
- ❑ A reevaluation and improvement process to assess the functionality of its WSCP and to make appropriate adjustments as may be warranted. [Water Code Section 10632(a)(10)]

8.1 Water Supply Reliability Analysis

Law

CWC 10632(a)(1)
The analysis of water supply reliability conducted pursuant to Section 10635.

As described in Chapter 7 of this UWMP AMWC's water supply has been determined to be reliable. More detail about this section can be found in AMWC's WSCP in Appendix G.

8.2 Annual Water Supply and Demand Assessment Procedures

Law

CWC 10632(a)(2)
The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:

(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.

(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.

(iii) Existing infrastructure capabilities and plausible constraints.

(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

(v) A description and quantification of each source of water supply.

CWC 10632.1.

An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.

In accordance with CWC 10632 AMWC will conduct an annual water supply and demand assessment, or annual assessment by July 1st of each year. AMWC will draft and prepare a written report that discusses the results of the annual water supply and demand assessment. Descriptions of the methodology, key data inputs, and a timeline for the annual assessment can be found in the WSCP.

8.2.1 Decision-Making Process

The written decision-making process can be found in the WSCP.

8.2.2 Data and Methodologies

The data and methodologies can be found in the WSCP.

8.3 Six Standard Water Shortage Levels

Law

CWC 10632(a)(3)

(A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.

(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

The WSCP establishes six stages of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing supplies. The WSCP includes both voluntary and mandatory rationing depending on the causes, severity, and anticipated duration of the water supply shortage. A summary of the response actions taken for each shortage level are described in **Table 8-1**, shown below.

Table 8-1: Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** *(Narrative Description)*
1	Up to 10%	Reserve production capability of 20% above the maximum daily demand representing "Normal" water supply conditions with "Voluntary" (always in place) compliance with water savings measures.
2	Up to 20%	Reserve production capability of 10% above the maximum daily demand representing "Slightly Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
3	Up to 30%	No reserve production capability representing "Moderately Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
4	Up to 40%	Less than 0% reserve production capability representing "Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
5	Up to 50%	Less than 0% reserve production capability representing "Severely Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
6	>50%	Less than 0% reserve production capability representing "Extremely Restricted" water supply conditions with "Mandatory" compliance with water savings measures.

Figure 8-1 provides a crosswalk that shows AMWC's water shortage levels to those mandated by statute.

Figure 8-1: Crosswalk for AMWC's 2015 Shortage Levels and the 2020 WSCP Mandated Shortage Levels

Stages from 2015 UWMP			Crosswalk	2020 WSCP Mandated Shortage Levels			
Stage	**Percent Supply Reduction**	**Water Supply Condition**		**Stage**	**Percent Supply Reduction**	**Water Supply Condition**	**Mandatory compliance with water savings measures**
0	0%	Reserve production capability of 20% above the maximum daily demand		1	0% to 10%	Normal	Voluntary, always in place
1	0%-15%	Reserve production capability of 10% above the maximum daily demand		2	10% to 20%	Slightly Restricted	Mandatory compliance
2	15%-35%	No reserve production capability		3	20% to 30%	Moderately Restricted	Mandatory compliance
3	35%-50%	Less than 0% reserve production capability		4	30% to 40%	Restricted	Mandatory compliance
				5	40% to 50%	Severely Restricted	Mandatory compliance
				6	50% and above	Extremely Restricted	Mandatory compliance

8.4 Shortage Response Actions

Law

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.

(a)(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

8.4.1 Demand Reduction

Table 8-2 summarizes the restrictions and prohibitions on end uses during each stage of water shortage response implemented by AMWC in accordance with CWC §10632(a)(4)(B). The shortage response actions are aligned to the six water shortage levels with the goal of reducing the gap between supply and demand by the required amount per level.

Table 8-2: Demand Reduction Actions

Shortage Level	Demand Reduction Actions	Estimated Extent of Reducing the Water Shortage Gap	Penalty, Charge, or Other Enforcement?
1	Education for water conservation methods.	Low	No
1	Public outreach for voluntary reduction in water use by 15%	Medium	No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Medium	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	High	Yes
2	Other - Shareholders must repair leaks, breaks, and malfunctions in a timely manner	Medium	Yes
3	Landscape - Limit landscape irrigation to specific times	High	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Low	Yes
3	Landscape - Prohibit certain types of landscape irrigation	Medium	Yes
4	CII - Other CII restriction or prohibition	Low	Yes
4	CII - Lodging establishment must offer opt out of linen service	Low	Yes
4	Landscape - Restrict or prohibit runoff from landscape irrigation	Medium	Yes
5	Other - Prohibit use of potable water for washing hard surfaces	High	Yes
5	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Medium	Yes
5	Landscape - Limit landscape irrigation to specific days	High	Yes
5	CII - Lodging establishment must offer opt out of linen service	Low	Yes
6	Landscape - Prohibit all landscape irrigation	High	Yes
6	Other - Prohibit use of potable water for construction and dust control	Medium	Yes

A complete description of operational and mandatory restrictions issued by AMWC can be found in the WSCP.

8.4.2 Supply Augmentation

Table 8-3 summarizes the restrictions and prohibitions on end users during each stage of water shortage responses implemented by AMWC in accordance with CWC §10632(a)(4)(A).

Table 8-3: Supply Augmentation and Other Actions		
Shortage Level	**Supply Augmentation Methods and Other Actions by Water Supplier**	**Estimated Extent of Reducing the Water Shortage Gap**
All Stages	Expand Public Information Campaign	Medium
1 and 2	Other – Voluntary Water Use Reductions	Medium
	Implement or Modify Drought Rate Structure or Surcharge	High
5 and 6	Stored Emergency Supply	Low
5 and 6	Other – Interrupt Irrigation Services	High

8.4.3 Operational Changes

In the event of an extreme water shortage AMWC will implement some or all of the following operational changes in accordance with CWC §10632(a)(4)(C) and §10632.5(a):

- ❑ AMWC shall provide prompt notice to customer whenever AMWC obtains information that indicates a leak may exist within the end-user's exclusive control. The customer must repair all leaks within twenty-four (24) hours of notification by AMWC.
- ❑ Evaluate maintenance procedures and alter if needed to improve system efficiency.
- ❑ Evaluate infrastructure repairs, and complete if possible, to improve system efficiency.

8.4.4 Additional Mandatory Restrictions

AMWC customers shall comply to the mandatory water shortage response actions listed in **Table 8-2** associated with a level 3 or higher water shortage event in accordance with §10632(a)(4)(D). In the event of a water shortage emergency or severe drought AMWC may enact additional mandatory restrictions:

- ❑ Implement drought water rates.
- ❑ Restrict or prohibit the issuance of new water services.

8.4.5 Emergency Response Plan

In the event of an emergency AMWC will declare a water shortage and enact the appropriate water savings actions until service is restored to pre-emergency conditions. A more detailed description of AMWC's emergency response plan and water shortage actions can be found in the WSCP.

8.4.6 Seismic Risk Assessment and Mitigation Plan

Law

CWC 10632.5. (a)
In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.

(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.

(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

AMWC completed the America's Water Infrastructure Act (AWIA) Risk and Assessment (RRA) which assessed seismic risk and the County of San Luis Obispo in partnership with the City of Atascadero developed a Multi-Jurisdictional Hazard Mitigation plan. A summary of the seismic risk assessment can be found in the WSCP.

8.4.7 Shortage Response Action Effectiveness

AMWC will monitor and evaluate the effectiveness of the shortage response actions. In the event that the shortage response actions are not effective AMWC will have the power to amend the WSCP. A more detailed description of AMWC's plan to monitor effectiveness can be found in the WSCP.

8.5 Communication Protocols

Law

CWC 10632 (a)(5)
Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.
(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.

AMWC will inform customers, the public, and the necessary local, regional, and state government entities in regard to any current or predicted water shortages based on the results of the Annual Water Supply and Demand Assessment or in the event of an emergency. AMWC will also notify all necessary entities of any shortage response actions mandated in response to the Annual Assessment. A detailed communication plan can be found in the WSCP.

8.6 Compliance and Enforcement

Law

CWC 10632 (a)(6)
For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

AMWC's enforcement policies can be found in the WSCP.

8.7 Legal Authorities

Law

CWC 10632 (a)(7)
(A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.
(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1. [see below]
(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

CWC Division 1, Section 350
Declaration of water shortage emergency condition. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

AMWC has the power to declare a water shortage. See the WSCP for AMWC's declaration of a water shortage.

8.8 Financial Consequences of WSCP

Law

> ***CWC 10632 (a)(8)***
> *A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:*
> *(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*
> *(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).*
> *(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.*

In the event of a water shortage AMWC has established drought water rates, see the WSCP for drought rates.

8.9 Monitoring and Reporting

Law

> ***CWC 10632 (a)(9)***
> *For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.*

Monitoring and reporting procedures can be found in the WSCP.

8.10 WSCP Refinement Procedures

Law

> ***CWC 10632 (a)(10)***
> *Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.*

Refinement procedures can be found in the WSCP.

8.11 Special Water Feature Distinction

Law

> ***CWC 10632 (b)***
> *For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an 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.*

A description of special water features can be found in the WSCP.

8.12 Plan Adoption, Submittal and Availability

Law

> ***CWC 10632 (a)(c)***
> *The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.*

The procedures that were used to adopt the WSCP are detailed in the WSCP.

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CHAPTER 9 DEMAND MANAGEMENT MEASURES

New Requirements for 2020 Update

There are no new plan preparation requirements for the 2020 UWMP guidance.

9.1 Demand Management Measures for Wholesale Suppliers

AMWC is not a wholesale agency and is not required by DWR to complete Section 9.1.

9.2 Existing Demand Management Measures for Retail Suppliers

Law

> ***CWC 10631***
> *(e)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 measure 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*

The UWMP Act requires a discussion of Demand Management Measures (DMMs), including a description of each of the DMMs currently being implemented/scheduled for implementation, the schedule of implementation for all DMMs, and the methods, if any, AMWC will use to evaluate the effectiveness of DMMs.

9.2.1 Water Waste Prevention Ordinances

Water waste prevention measures are detailed in AMWC's WSCP. The measures included in the WSCP are summarized below:

1) Work with local government to prohibit frequent gutter flooding, single-pass cooling systems for new connections, non-recirculating systems in all new conveyor or car wash systems, non-recirculating systems in all new commercial laundry systems, non-recirculating systems in all new decorative fountains.

2) Work with local government to instate a landscape water ordinance as least as effective as the AB 325 Model Landscape Ordinance.

Declaration of a Stage 1 water shortage condition: the following Wise and Beneficial Use of Water policy is adopted, and the public water-awareness program is escalated.

When the Board of Directors makes a Stage 2 declaration the Wise and Beneficial Use of Water policy is enacted and prohibitions and restrictions on the use of water are enforced.

Wasteful Use of Water - No water user shall waste any water supplied through the distribution facilities of AMWC or through any well under agreement with AMWC. The following uses of water constitute "waste" as used in this resolution:

- ❑ The watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees, including agricultural irrigation, in a manner or to an extent which allows substantial amounts of excess water to run off the area being watered. Every water user is deemed to have under his control at all times his water distribution lines and facilities and to know the manner and extent of his water use and excess runoff.
- ❑ The washing of sidewalks, walkways, driveways, parking lots and all other hard-surfaced areas by direct hosing, except as directed by governmental entities or agencies to eliminate matters and substances dangerous to the public health and safety.
- ❑ The escape of water through breaks or leaks within the water users plumbing or distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 24 hours after the water user discovers such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.
- ❑ The use of water by governmental entities or agencies for (1) routine water system flushing for normal maintenance, (2) routine sewer system flushing for normal maintenance, and (3) fire personnel training; except as approved in advance in writing by the AMWC Board of Directors.
- ❑ The watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees, including agricultural irrigation between the hours of 7 a.m. and 7 p.m.
- ❑ The watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees, including agricultural irrigation, on Mondays, Wednesdays, and Fridays for properties with odd-numbered street addresses and Tuesdays, Thursdays, and Saturdays for properties with even-numbered street addresses.
- ❑ The watering of grass, lawns, ground-cover, shrubbery, open ground, crops and trees, including agricultural irrigation on Sundays on any property within the service area of AMWC.
- ❑ The washing of vehicles and other activities involving the use of a hose without a shutoff nozzle.

Remedies - In the event any person, firm, partnership, association, corporation, or political entity is found by the Board of Directors to be in violation of any restriction or prohibition of this Resolution, the Board of Directors may impose a special water waste surcharge against such person's account and may temporarily or permanently discontinue or restrict, with a flow regulating device, water service to the affected property. Before taking such action, the Board of Directors shall give any such person reasonable notice and an opportunity to be heard and protest against the finding of such violation and the imposition of such measures. The Board may determine the terms and conditions of the discontinuance or restriction of service any may establish by Resolution, a schedule of the amount of such surcharges as in its sole discretion will reasonably compensate AMWC and its customers for all loss of water and other damages incurred and as will foster water conservation within the service area of AMWC.

Notices and Surcharges - The Board authorizes AMWC staff to issue notices and assess the surcharges listed below to customers in violation of any restriction or prohibition of this Resolution. The Board has determined that the surcharges listed below reasonably compensate AMWC and its customers for all loss of water and other damages incurred and as will foster water conservation within the service area of AMWC.

- ❑ 1st Violation - Written & oral notice (door hanger & follow-up call) identifying nature of violation
- ❑ 2nd Violation - Written notice including notification of possible surcharge & installation of flow restrictor
- ❑ 3rd Violation within one year of first violation - 50% surcharge based on current month's water usage added to current month's water bill
- ❑ 4th & Subsequent Violations within one year of first violation - 100% surcharge based on current month's water usage added to current month's water bill plus installation of flow restrictor

Emergency Staff Action - In unusual emergency circumstances where AMWC personnel observe substantial amounts of water being wasted in violation of this Resolution and where after reasonable efforts have been made to persuade the shareholder to terminate such waste, but have failed, the General Manager may authorize the immediate restriction of water service by installation of a flow regulating device or temporary discontinuation of service to the affected property. A written notice of such action and the reasons therefore shall be delivered to the shareholder and any adult person present at the premises, or if none can be found, left in a conspicuous place on the property within twenty four hours of restriction or discontinuance of service. Any such person whose service has been discontinued may have water service promptly reinstated by applying at the AMWC office upon payment of a reconnection fee equal to the delinquent shut-off fee established by the Board. Notwithstanding any reinstatement, such person may still be cited for and subject to all other penalties for water wastage provide elsewhere in this Resolution.

Appeals - Any water user may appeal any decision or application of the provisions of this Resolution to the Board of Directors by filing a written appeal with the General Manager within ten days from the date of the decision or application of the provisions is made, and the Board of Directors will set the matter for a hearing at the next regular meeting, and may in its discretion thereafter affirm, reverse, or modify the General Manager's decision, and impose any conditions it deems just and proper.

9.2.2 Metering

Law

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.

AMWC requires meters for all new connections and billing by volume of use. Metering of all water has been instituted since 1914. Dedicated irrigation meters are encouraged for commercial, industrial, institutional and multi-family common landscapes greater than 5000 square feet. AMWC customers are billed with a commodity, a base, and an increasing tiered rate structure.

9.2.3 Conservation Pricing

Table 9-2 and **9-3** summarizes AMWC's current water rate structure. AMWC does not provide sewer service. Sewer service is provided by the City of Atascadero for a limited number of users within the AMWC water service area.

Table 9-1: Minimum Rate per Meter Size	
Meter Size	**Water Rates**
5/8	$22
3/4	$22
1	$28
1 1/2	$34
2	$56
3	$181
4	$231
5	$350
Hydrant Meter	$76

Table 9-2: Charges for Water Consumed		
Tier	**Usage (1000 gal)**	**Rate (Per 1000 gal)**
1	1 - 10	$ 2.30
2	11 – 25	$ 3.50
3	26 – 50	$ 4.90
4	51 – 75	$ 5.60
5	>75	$7.20

In addition to the standard billing rates shown above properties in pumping-surcharge areas pay an additional 15% for water consumed.

9.2.4 Public Education and Outreach

AMWC's organizes the following public education and outreach events:

1) Annual conservation newsletter to customers.

2) Annual Water-Wise Strategies workshops.

3) Providing information on customer's bills showing use in thousand gallons per month compared to previous year.

4) Providing conservation information on monthly water bill.

5) Participating in local Partners In Water Conservation activities and PSA's.

6) Providing seasonal information at local nurseries.

7) Conducting annual Water-Conserving Landscape Awards Contest.

8) Sponsoring community calendar with monthly water conservation information.

9) Sponsoring and participating in community Conservation Celebration.

10) Participating in Colony Days Tent City to share role and history of the water company in the community.

11) Water-conserving demonstration gardens on and off-site of AMWC property.

12) Sponsoring annual Salinas River and Atascadero Creek Clean-up.

13) Participating in landscape industry events to showcase water-wise landscaping to the community.

14) Hosting watershed walks and well-field tours.

AMWC has had a strong public outreach program since the drought in the early 1990s. Many articles on water conservation have been written by AMWC in the local news. AMWC's articles can be found as early as 1916.

9.2.5 Programs to Assess and Manage Distribution System Real Loss

AMWC's programs to assess and manage distribution systems' losses include the following:

1) Complete a monthly water audit for leak detection and repairs.

    a) Determine metered sales;
    b) Determine other system verifiable uses'
    c) Determine total supply into system;
    d) Divide metered sales plus other verifiable uses by total supply into the system. If this quantity is less than 0.9, a full-scale system audit is indicated.

2) When indicated, the AMWC will complete a water audit of its distribution system using methodology consistent with that described in AWWA's Water Audit and Leak Detection Guidebook.

3) AMWC also advises customers whenever it appears possible that leaks exist on the customer's side of the meter; performs distribution system leak detection when warranted and cost-effective; and repairs leaks when found.

4) Quantification all produced and sold water in the system and by zone, testing meters, verifying records and maps, field checking distribution controls and operating procedures.

5) "Leak Prevention" programs including corrosion control, quality control on materials and installations, and backflow device testing.

AMWC has a leak detection and repair program that surveys roughly 250 miles of service area pipe mains throughout the 38 square miles of service area. Although a yearly target of less than 7% losses is maintained, should system losses exceed 9% a more detailed audit would be triggered. AMWC estimates half an acre-foot of losses annually for known causes including main and hydrant flushing.

9.2.6 Water Conservation Program Coordination and Staffing Support

One Conservation Manager is responsible for overseeing the conservation program and one part-time Water Conservation specialist to assist the Conservation Manager with home water surveys, rebates, and education and outreach programs.

9.2.7 Other Demand Management Measures

Law

> ***CWC 10631***
> *(e) 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 measure 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 significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

Other demand management measures that AMWC has implemented include the following:

School Education Programs:

1) Provide "The Story of Our Water" class presentations. This free 45-minute class presentation helps 3rd – 6th grade students understand the importance of water resources in Atascadero. The presentation is correlated to the Next Generation Science Standards. Interactive three-dimensional storyboards, called the water puzzle, are used to keep students focused and involved.

2) Provide a 90-minute Water Exploration. This field trip provides students with a terrific first-hand investigation of the Salinas River, and how this water source is managed to provide a safe, reliable water supply to residents of the Atascadero area. Students will see how water is produced and treated before being sent to homes. They will also learn about groundwater and how it is being managed. Students will also learn about the Nacimiento Water Project, and observe the water recharge basin that provides 2,000 acre feet of water each year to local residents. Participate in local Children's Day in the Park with water conservation and water cycle activities.

Water Survey Programs for Single- Family Residential and Multi-Family Residential Customers:

AMWC's implementation of this BMP includes the following:

1) Contact via letter or telephone single-family and multi-family residential customers.

2) Provide surveys to single-family and multi-family residential customers.

3) Check water pressure and identify presence of water pressure regulator.

4) Check for leaks, including toilets, faucets and showerheads.

5) Check showerhead and aerator flow rates, replacement included in bathroom retrofit incentive.

6) Check toilet flow rate and, when appropriate qualify customer for bathroom retrofit incentive.

7) Check irrigation system for efficiency and determine timer functioning and current schedule.

8) Develop revised irrigation schedule.

9) Provide customer with evaluation results, water saving recommendations and other information.

10) Recommend rebate programs to customers including:
    a) Lawn to Garden turf conversion program
    b) WaterSense Specifications Irrigation Controllers
    c) Installation of Pressure Reducing Valve
    d) Rainwater Harvesting rebate

Conservation staff solicits information on current water use practices and works with customers to increase water efficiency. Trained auditors execute interior audits for leaks in toilets, showerheads, and faucets and conduct an exterior landscape and irrigation audit when applicable. Customers are provided with information packets that include evaluation results and water saving recommendations. The landscape survey program began in 1994. Residential survey programs are marketed through direct mailing, bill inserts, AMWC's Water Watch newsletter, the local newspaper, and flyers distributed at local events.

Pressure Reducing Valve Rebate Program:

AMWC began its Pressure Reducing Valve Program in 2020 as an incentive for customers whose residential properties have static pressure of 80 pounds per square in (psi) or higher. Reducing high water pressure saves water and prevents damages to pipes, appliances, and water fixtures. Shareholders can receive a $100 rebate credit for materials and labor if their application is approved and meets all criteria.

Smart Irrigation Controller Program:

AMWC's Smart Irrigation Controller Program is meant to encourage customers to reduce the amount of landscape water used and improve landscape irrigation efficiency by utilizing weather-based irrigation controllers (WBIC) as a tool to improve irrigation management. The Weather-Based Irrigation Program and Rainwater Harvesting Rebate Program fall under this program. Upon installation of a qualified Smart Irrigation Controller, customers will receive a rebate up to 50% of the actual price of the controller.

High-Efficiency Clothes Washing Machine Rebate Programs:

AMWC's High-Efficiency Clothes Washer (HECWT) program is meant to encourage the use of water efficient appliances, with added benefits of energy efficiencies. The program will expire on April 30, 2021 or until funds run out.

High Efficiency Toilet Rebate Program for WaterSense Specification (WSS) Toilets:

AMWC's implementation of this BMP includes the following:

1) Maintain an aggressive single family and multi-family ultra-low flow toilet rebate program.

2) Report HET program data to CUWCC's reporting database.

Commercial, Industrial, and Institutional:

AMWC's implementation of this BMP includes the following:

1) Provide interior water surveys to commercial and industrial accounts.

2) Provide unique rebate opportunities when appropriate not limited to, but including commercial washers, cooling tower conductive meters, water brooms and commercial toilets.

3) AMWC categorizes institutional customers into commercial and industrial accounts.

Landscape:

AMWC's implementation of this BMP includes the following:

1) Provide non-residential customers with support, education, and incentives to improve their landscape water use efficiency.

2) Provide new large landscape customers with guidance on appropriate landscaping for the conservation of the community's finite resources while insuring the aesthetic, environmental and societal benefits of stainable landscaped projects.

3) AMWC offers a rebate for upgrading to Water Sense Specification Irrigation Controllers.

Designated landscape meters are currently 1.7% of AMWC's total annual water use. The Cachuma Resource Conservation District through the Cachuma Mobile Lab has historically surveyed and provided water audits and budgets for the local school district and Atascadero city park and recreation facilities. Landscape water use analysis surveys are offered to non-residential users through direct mailing. Follow-up water use results and materials are provided via mail or site visit where appropriate. The Cachuma RCD conducted school, park, and cemetery irrigation audits in 1999, 2005, and 2010.

9.3 Reporting Implementation

Law

> *CWC 10631*
> *(e) 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.*

9.3.1 Implementation Over the Past Five Years

AMWC has implemented the required DMMs per CWC 10631 to achieve its water use targets pursuant to Section 10608.20 and described in Chapters 5 and 8. In the past 5 years, AMWC has maintained its High-Efficiency Toilet Rebate (HET/DFT) Program and High-Efficiency Clothes Washer (HECW). Additionally, AMWC has introduced four new rebate programs: the Weather-Based Irrigation Program, Pressure Reducing Valve Program, Rainwater Harvesting Rebate Program, and Lawn to Garden Rebate Program.

AMWC's Public Education and Outreach events mentioned in the 2015 UWMP have continued to take place over the last 5 years. School education programs and water audit programs have continued taking place in the community, as well. AMWC will continue to carry out programs mentioned and implement new programs as seen fit.

9.3.2 Implementation to Achieve Water Use Targets

AMWC has implemented the required DMM per CWC 10631 to achieve its water use targets pursuant to Section 10608.20. Baseline and target 2020 GPCD are described in Chapter 5 of the UWMP. AMWC adopted its WSCP (see Chapter 8) at its June 2021 Board meeting which outlines measures AMWC will take to achieve water use targets.

9.4 Water Use Objectives (Future Requirements)

The Water Code requires suppliers to develop new water use objectives by 2023 that align with the supplier's conservation management actions. AMWC describes its water use objectives during water shortages in its WSCP and will further develop objectives by 2023.

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CHAPTER 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

New Requirements for 2020 Update

- ❑ Since 2015, the public processes for completing the UWMP have not been revised. However, the Water Shortage Contingency Plan is a new component of the 2020 UWMP that can be amended separately from the UWMP (see Chapter 8)

10.1 Inclusion of all 2020 Data

This 2020 UWMP update includes water use and planning data for the entire 2020 calendar year.

10.2 Notice of Public Hearing

10.2.1 Notice to Cities and Counties

Law

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…

10.2.1.1 60 Day Notification

AMWC notified the agencies listed in **Table 10-1** at least sixty (60) days prior to the public hearing of the preparation of the 2020 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in Appendix H.

10.2.1.2 Notice of Public Hearing

The Notice of the public hearing, held at the June 2021 Board meeting at the AMWC office, was sent to the City of Atascadero and County of San Luis Obispo on April 6, 2021. A copy of the letters from AMWC to the City and County are included in Appendix H of this UWMP.

10.2.1.3 Submittal Tables

Table 10-1 summarizes the agencies which were provided notifications by the AMWC.

Table 10-1 Retail: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
City of Paso Robles	☑	☑
City of Atascadero	☑	☑
County Name	**60 Day Notice**	**Notice of Public Hearing**
San Luis Obispo County	☑	☑

10.2.2 Notice to the Public

Law

> ***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.*

The public hearing was noticed in the local newspaper as prescribed in Government Code 6066. This notice included time and place of hearing, as well as the location where the UWMP and WSCP is available for public inspection. A copy of the newspaper notice is included in Appendix I.

10.3 Public Hearing and Adoption

Law

> ***CWC 10642***
> *…Prior to adopting either, the [plan or water shortage contingency plan], the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings 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.*

10.3.1 Public Hearing

Prior to adopting the 2020 UWMP and WSCP, AMWC held a public hearing at the June 2021 Board meeting, which included input from the community regarding the AMWC's draft 2020 UWMP and WSCP. As part of the public hearing, AMWC provided information on determination of its water use targets and action plan in case of severe water shortage conditions.

10.3.2 Adoption

Law

> ***CWC 10642***
> *…After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*

The 2020 UWMP and WSCP was adopted in June 2021 during a regularly scheduled Board meeting. A copy of the resulting adoption and meeting minutes is included in Appendix J of this UWMP.

10.4 Plan Submittal

Law

CWC 10621
(e) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021…

CWC 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.

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

CWC 10635
(c) 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 and Water Shortage Contingency Plan to DWR

Within 30 days of adoption of the 2020 UWMP by the City Council and by July 1, 2020, the City will submit the adopted 2020 UWMP to DWR, as required by CWC 10621 and 10644. The 2020 UWMP will be submitted through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

DWR previously provided a checklist to make determine if an Urban Water Management Plan has addressed the requirements of the California Water Code. The City has completed the DWR checklist by indicating where the required CWC elements can be found within the AMWC's 2020 UWMP (See Appendix K).

10.4.2 Electronic Data Submittal

Law

CWC 10644
(a)(2) The plan, or amendments to the plan, submitted to the department… shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

Within 30 days of adoption of the 2020 Plan, the AMWC will also submit all data tables associated with the 2020 Plan through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

10.4.3 Submitting a UWMP, including WSCP, to the California State Library

Within 30 days of adoption of the 2020 UWMP by the City Council, a copy (CD or hardcopy) of the 2020 Plan will be submitted to the State of California Library. A copy of the letter to the State Library will be maintained in the City's file. The 2020 Plan will be mailed to the following address if sent by regular mail:

California State Library
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attention: Coordinator, Urban Water Management Plans

The 2020 Plan will be delivered to the following address if sent by courier or overnight carrier:

California State Library
Government Publications Section
914 Capitol Mall
Sacramento, CA 95814

10.4.4 Submitting a UWMP to Cities and Counties

Within 30 days of adoption of the 2020 Plan by the City Council, a copy of the 2020 UWMP will be submitted to the County of San Luis Obispo Registrar / Recorders office and AMWC office. A copy of the letter to the County of San Luis Obispo will be maintained in the City's file.

10.5 Public Availability

Law

CWC 10645
(a) 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.
(b) Not later than 30 days after filing a copy of its water shortage contingency 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 2020 UWMP is available on AMWC's website at www.amwc.us and at AMWC's office at 5005 El Camino Real, Atascadero between the hours of 9 AM and 4 PM Monday through Friday.

10.6 Notification to Public Utilities Commission

Law

CWC 10621(c)
An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage contingency plan as part of the supplier's general rate case filings.

The section is not applicable to AMWC.

10.7 Amending an Adopted UWMP or Water Shortage Contingency Plan

Law

CWC 10621
(d) 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).

(a)(1) 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.

10.7.1 Amending a UWMP

If AMWC amends the adopted 2020 UWMP, the amended UWMP will undergo adoption by the AMWC's governing board. Within 30 days of adoption, the amended UWMP will then be submitted to DWR, the State of California Library, the County of San Luis Obispo / Recorders office, and the AMWC office.

10.7.2 Amending a Water Shortage Contingency Plan

If AMWC amends the adopted 2020 WSCP, the amended WSCP will undergo adoption by the City's governing board. Within 30 days of adoption, the amended WSCP will then be submitted to DWR, the State of California Library, the County of San Luis Obispo / Recorders office, and the AMWC office.

Appendix A. ATASCADERO BASIN

GROUNDWATER SUSTAINABILITY PLAN

Atascadero Basin Groundwater Sustainability Plan

Draft Chapter for Public Comment

Section 6

Water Budgets

Thank you for your interest in sustainable groundwater management.

ATASCADERO BASIN
Groundwater
Sustainability Agency

GEI Consultants

Consulting Engineers and Scientists

ATASCADERO BASIN Groundwater Sustainability Agency

GSI Water Solutions, Inc.

Draft Atascadero Groundwater Sustainability Plan

Atascadero Groundwater Subbasin Section 6

Prepared for: Atascadero Subbasin Groundwater Sustainability Agency

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Appendices

6. Water Budgets

This chapter summarizes the estimated water budgets for the Atascadero Area Groundwater Sub-basin of the Salinas Valley Basin (Basin), including information required by the Sustainable Groundwater Management Act (SGMA) Regulations and information that is important for developing an effective Groundwater Sustainability Plan (GSP) to achieve sustainability. In accordance with the SGMA Regulations §354.18, the GSP should include a water budget for the basin that provides an accounting and assessment of the total annual volume of surface water and groundwater entering and leaving the basin, including historical, current, and projected water budget conditions, and the change in the volume of water stored. The regulations require that the water budgets be reported in graphical and tabular formats, where applicable.

6.1 Overview of Water Budget Development

This section is subdivided into three sections: (1) historical water budgets, (2) current water budgets, and (3) future water budgets. Within each section, a surface water budget and groundwater budget are presented. Water budgets were developed using computer models of the Basin hydrogeologic conditions. Before presenting the water budgets, a brief overview of the models is presented. Appendix 6A provides additional information about the models and compares previously reported water budgets to the water budgets developed for this GSP.

The water budgets reported herein are for the Basin defined in Section 1.2 and depicted on Figure 1-1.

The safe yield of a groundwater basin is the volume of pumping that can be extracted from the basin on a long-term basis without creating a chronic and continued lowering of groundwater levels and groundwater in storage volumes. The safe yield is not a fixed constant value, but is a dynamic value that fluctuates over time as the balance of the groundwater inputs and outputs change; thus, the calculated safe yield of the Basin will be estimated and likely modified with each future update of the GSP.

Safe yield is not the same as sustainable yield. Sustainable yield is defined in SGMA as "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus that can be withdrawn annually from a groundwater supply without causing an undesirable result." An undesirable result is one or more of the following effects on the six sustainability indicators:

- Chronic lowering of groundwater levels in the aquifer(s)
- Significant and unreasonable reduction of groundwater in storage
- Significant and unreasonable degradation of water quality

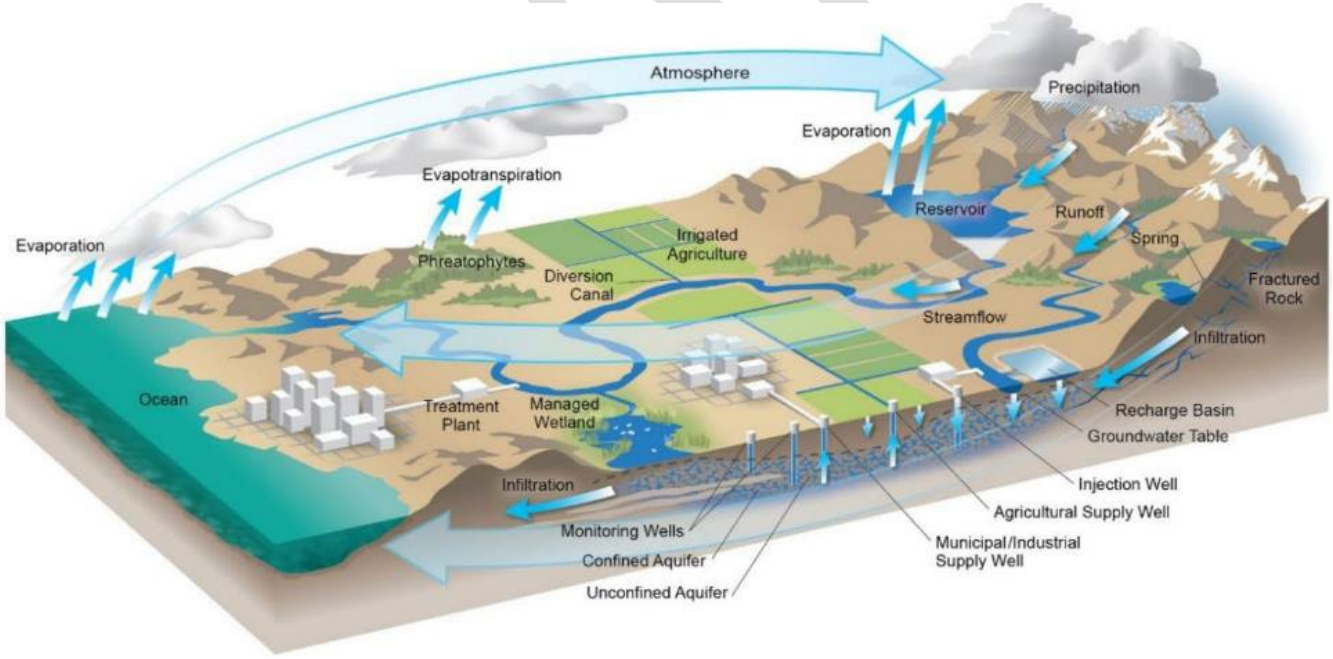
- Sea water intrusion
- Significant and unreasonable land subsidence that interferes with surface land uses
- Depletion of interconnected surface water that has significant and unreasonable adverse impacts on beneficial uses of surface water

Defining the safe yield of a groundwater basin provides a starting point for later establishing sustainable yield by considering each of the six sustainability indicators listed above.

Section 354.18 of the SGMA Regulations requires development of water budgets for both groundwater and surface water that provide an accounting of the total volume of water entering and leaving the basin. To satisfy the requirements of the regulations, a surface water budget was prepared for the Atascadero Basin and an integrated groundwater budget was developed for each water budget period for the combined inflows and outflows for the two principal aquifers – Alluvial Aquifer (including the Salinas River alluvial aquifer and associated tributaries; see Section 4) and Paso Robles Formation Aquifer. Groundwater is pumped from both aquifers for beneficial use.

Figure 6-1 presents a general schematic diagram of the hydrologic cycle. The water budgets include the components of the hydrologic cycle.

Figure 6-1. Hydrologic Cycle (Source: DWR, 2016a)



A few components of the water budget can be measured, like streamflow at a gaging station or groundwater pumping from a metered well. Other components of the water budget are estimated, like recharge from precipitation or unmetered groundwater pumping. The water budget is an inventory and accounting of total surface water and groundwater inflows (recharge) and outflows (discharge) from the Basin, including:

Surface Water Inflows:

- Runoff of precipitation and reservoir releases into streams and rivers that enter the Basin from the surrounding watershed
- Imported surface water (e.g. Nacimiento Water Project)

Surface Water Outflows:

- Streamflow exiting the Basin
- Percolation of streamflow to the groundwater system
- Evaporation

Groundwater Inflows:

- Recharge from precipitation
- Subsurface groundwater inflow
- Irrigation return flow (water not consumed by crops/landscaping)
- Percolation of surface water from streams
- Percolation of treated wastewater from disposal ponds
- Percolation of imported surface water (e.g. Nacimiento Water Project)

Groundwater Outflows:

- Evapotranspiration
- Groundwater pumping
- Subsurface outflows to the adjoining, downgradient groundwater basins
- Groundwater discharge to surface water

The difference between inflows and outflows is equal to the change in storage.

6.2 Water Budget Data Sources and Basin Model

Water budgets for the Basin were estimated using an integrated system of three hydrologic models (collectively designated herein as the "basin model"), including:

1. A watershed model
2. A soil water balance model
3. A groundwater flow model

The groundwater model was originally developed by Fugro (2005). The watershed and soil water balance models were developed and integrated with an updated version of the groundwater model by Geoscience Support Services, Inc. (GSSI) (GSSI, 2014 and 2016). These models were developed for San Luis Obispo County Flood Control and Water Conservation District (SLOFCWCD). The domain of these models encompasses an area that includes both the Paso Robles Subbasin and the Basin as well as a portion of the Salinas Valley – Upper Valley Aquifer

Subbasin north of the Monterey County line[1]. The original models are documented in the following reports:

- Final Report, Paso Robles Groundwater Basin Study Phase II, Numerical Model Development, Calibration, and Application: Fugro, February 2005
- Paso Robles Groundwater Basin Model Update: Geoscience Support Services, Inc., December 2014
- Refinement of the Paso Robles Groundwater Basin Model and Results of Supplemental Water Supply Options Predictive Analysis: Geoscience Support Services, Inc., December 2016.

The GSSI 2016 version of the basin model was updated by Montgomery & Associates (M&A; 2020) for the Paso Robles Subbasin GSP. Because the model domain of the basin model encompasses the entirety of the original Fugro 2002 basin, the basin model simulates groundwater flow conditions and water budgets for both the Paso Robles Subbasin and the Atascadero Subbasin.

The M&A (2020) basin model update included updating the GSSI 2016 basin model by incorporating hydrologic data for the period 2012 through 2016 into the models. Appendix 6A includes a brief summary of the model update process, including:

- A summary of data sources used for the update (Table 6A-1)
- A summary of modifications made to the basin model to address computational refinements, data processing issues, and conceptual application of the model codes

The updated versions of the basin models are referred to herein collectively as the "GSP model". The GSP model has been utilized for both the Atascadero Basin GSP and the Paso Robles Subbasin GSP as the model domain covers large portions of both subbasins.

Numerous sources of raw data were used to update the basin models for the GSP. Examples of raw data include metered pumping and deliveries from the Atascadero Mutual Water Company (AMWC), Templeton Community Services District (TCSD), and the city of Paso Robles, precipitation data obtained from weather stations in the Basin, and crop acreage from the office of the San Luis Obispo County Agricultural Commissioner, among many others. Data sources are listed in Table 6A-1. Raw data were compiled, processed, and used to develop model input files. Model results were used to develop estimates of the individual inflow and outflow

[1] The domain of the Fugro 2005 model and subsequent model updates completed by GSSI (2014 and 2016) were designed to encompass the area defined as the Paso Robles Groundwater Basin by Fugro in 2002. The 2002 Fugro study defined the lateral and vertical extent of the Paso Robles Groundwater Basin, which included a portion north of the Monterey County line and identification of the Atascadero Subbasin (Basin) as a hydrogeologically distinct portion of the basin. The basin extents defined by Fugro (2002) varies slightly from the basin extents defined in the current DWR Bulletin 118 (DWR 2016b).

components of the surface water and groundwater budgets. Thus, all the estimated flow components herein were extracted from the GSP model.

6.2.1 *Model Assumptions and Uncertainty*

The GSP model is based on available hydrogeologic and land use data from the past several decades, previous studies of Basin hydrogeologic conditions, and earlier versions of the basin models. The GSP model gives insight into how the complex hydrologic processes are operating in the Basin. During previous studies, available data and a peer-review process were used to calibrate the basin model to Basin hydrogeologic conditions. Results of the previous calibration process demonstrated that the model-simulated groundwater and surface water flow conditions were similar to observed conditions. The GSP model was not recalibrated. However, after updating it for this GSP, calibration of the model was reviewed and found to be similar to the previous model. The groundwater flow model module of the GSP model does not cover the northwestern upland portion of the Atascadero Basin (as defined by DWR Bulletin 118) so groundwater processes have not been modeled in this area, yet, the watershed model does include this area so contributing surface and subsurface flows from this upland area have been incorporated into the GSP model; therefore, use of the GSP model was considered appropriate for development of the Atascadero Basin GSP.

Projections made with the GSP model have uncertainty due to limitations in available data and assumptions made to develop the models. Model uncertainty has been considered when developing and using the reported GSP water budgets for developing sustainability management actions and projects (Section 9).

New data will be collected and/or refined throughout the early implementation of this GSP (after adoption by the GSA). The information will be used to recalibrate and potentially expand the domain of the GSP model, and perhaps develop a stand-alone, Atascadero Basin-specific groundwater flow model rather than continued utilization of the coupled Paso Robles Subbasin/Atascadero Basin model. New hydrologic data and a calibrated model will be used to simulate impacts from proposed sustainability management actions, and possible water resource improvement projects, to monitor that progress toward the sustainability goal is being achieved.

6.3 Historical Water Budget

The SGMA Regulations require that the historical surface water and groundwater budget be based on at least the most recent 10 years of data. The period 1981 to 2011 was selected as the time period for the historical water budget (referred to as the historical base period) because it is long enough to capture typical climate variations, it corresponds to the period simulated in the basin model, and it ends at about the time the latest drought period began. Estimates and assumptions of the surface water and groundwater inflows and outflows, and changes in storage for the historical base period are provided below.

6.3.1 *Historical Surface Water Budget*

The SGMA Regulations (§354.18) require development of a surface water budget for the GSP. The surface water budget quantifies important sources of surface water and evaluates their historical and future reliability. The water budget Best Management Practice (BMP) document states that surface water sources should be identified as one of the following (DWR, 2016a):

- Central Valley Project
- State Water Project
- Colorado River Project
- Local imported supplies
- Local supplies

The Basin relies on two of these surface water source types: local imported supplies and local supplies.

6.3.1.1 Historical Local Imported Supplies

As described in Section 4.7.1, the Nacimiento Water Project (NWP) regional raw water transmission facility delivers water from Lake Nacimiento to communities in San Luis Obispo County, including AMWC, TCSD, and the city of Paso Robles. TCSD has an allocation of 406 acre-feet per year (AFY) of NWP water and began taking deliveries in 2011. A total of 74 acre-feet (AF) was taken by TCSD in 2011, and constitutes the only NWP deliveries in the historical period. AMWC and the city of Paso Robles began taking deliveries in 2012 and 2013, respectively (these deliveries will be discussed further in Section 6.4 - Current Water Budget). Within the Basin, all three municipal purveyors utilize their imported NWP water to recharge the Basin via percolation ponds or direct discharge located in the Alluvium adjacent to the Salinas River[2]. Table 6-1 summarizes the annual average, minimum, and maximum values for the imported NWP water during the historical base period.

6.3.1.2 Historical Local Supplies

Local surface water supplies include surface water flows that enter the Basin from precipitation runoff within the watershed and Salinas River inflow to the Basin (including releases from the Salinas Reservoir). Table 6-1 summarizes the annual average, minimum, and maximum values for these inflows.

2 The city of Paso Robles utilizes their NWP allocation in two ways: treatment in a package water treatment plant, and applying directly to the ground surface on the alluvial gravels of the Salinas River floodplain in the north end of the Basin. The treated portion of NWP water is used outside of the Basin and is therefore not considered.

Table 6-1. Estimated Historical (1981-2011) Annual Surface Water Inflows to Basin

Surface Water Inflow Component	Average	Minimum[2]	Maximum[2]
Inflow to Basin including the Salinas River and Tributaries[1]	90,600	1,400	407,800
Imported (Nacimiento Water Project)	2	0	74
Total	90,600		

notes:

All values in acre-feet

[1] - Tributaries include Santa Margarita Creek, Paloma Creek, Atascadero Creek, Graves Creek, and Paso Robles Creek

[2] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

The estimated average annual total inflow from these sources over the historical base period is about 90,600 AF. The largest component of this average inflow is releases and flow in the Salinas River. The large difference between the minimum and maximum inflows reflects the difference between dry and wet years in the Basin.

6.3.1.3 Historical Surface Water Outflows

The estimated annual average total surface water outflow leaving the Basin as flow in the Salinas River, and percolation into the groundwater system over the historical base period is summarized in Table 6-2.

Table 6-2. Estimated Historical (1981-2011) Annual Surface Water Outflows from Basin

Surface Water Outflow Component	Average	Minimum[1]	Maximum[1]
Salinas River Outflow from Basin	83,500	300	380,600
Streamflow Percolation	7,100	1,100	27,200
Nacimiento Water Project Percolation	2	0	74
Total	90,600		

notes:

All values in acre-feet

[1] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

The estimated average annual total outflow from these sources over the historical base period is about 90,600 AF. The largest component of this average outflow is the Salinas River. The large difference between the minimum and maximum outflows reflects the difference between dry and wet years in the Basin.

6.3.1.4 **Historical Surface Water Budget**

Figure 6-2 summarizes the historical surface water budget for the Basin.

Figure 6-2. Historical (1981-2011) Surface Water Inflows and Outflows

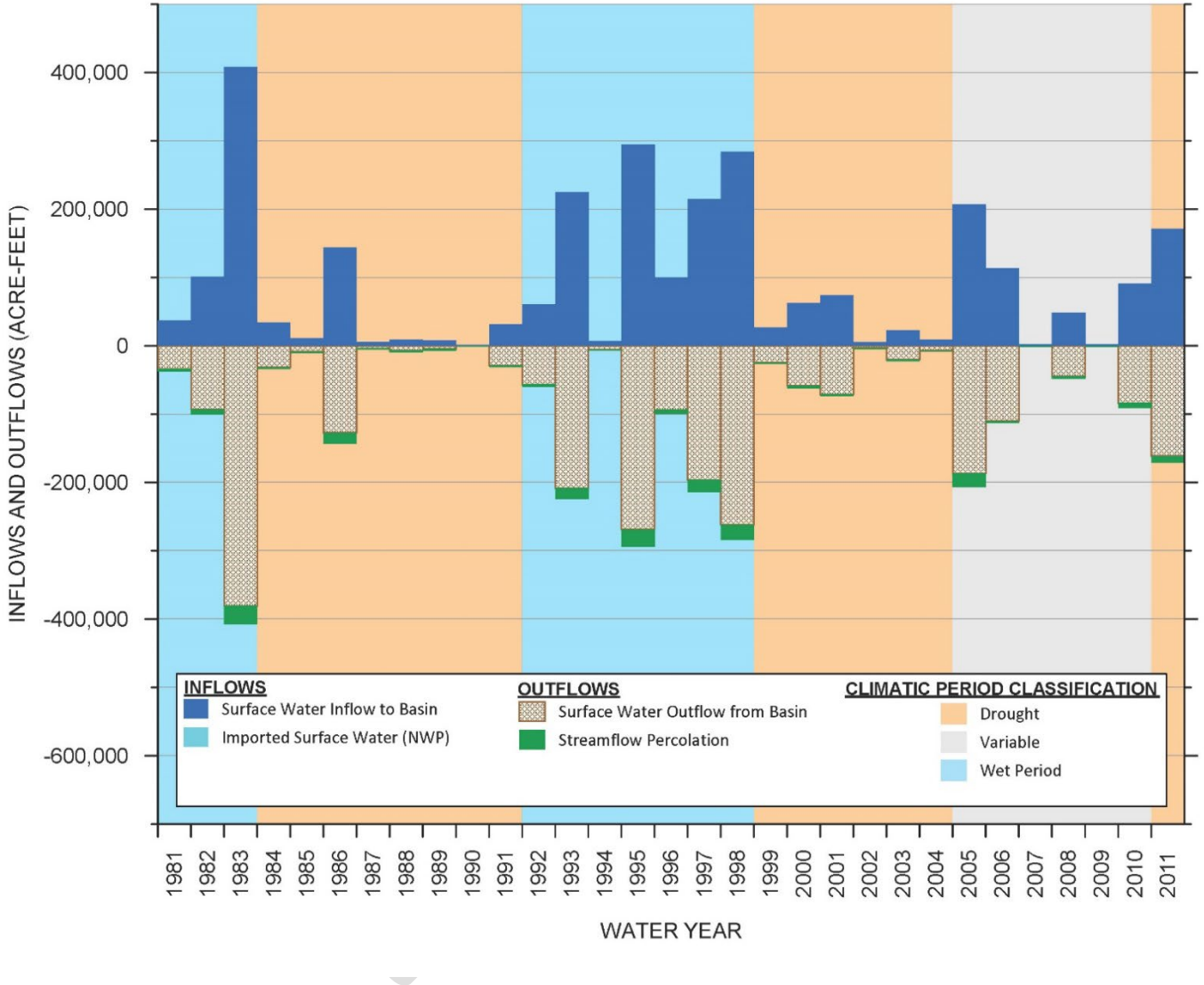


Figure 6-2 shows the strong correlation between precipitation and streamflow in the Basin. In wet periods, shown with a blue background, surface water inflows and outflows are large. In contrast, in dry periods, shown with an orange background, surface water inflows and outflows are small.

6.3.2 *Historical Groundwater Budget*

Groundwater, including production from both the Alluvial Aquifer (Salinas River underflow) and the Paso Robles Formation Aquifer, supplied virtually all of the water used in the Basin over the historical base period. The historical groundwater budget includes a summary of the estimated groundwater inflows, groundwater outflows, and change in groundwater in storage.

6.3.2.1 Historical Groundwater Inflows

Groundwater inflow components include streamflow percolation, agricultural irrigation return flow, deep percolation of direct precipitation, subsurface inflow into the Basin, imported surface water percolation, wastewater treatment plant pond percolation, and urban irrigation return flow. Estimated annual groundwater inflows for the historical base period are summarized in Table 6-3. Values reported in the table were estimated or derived from the GSP model using data sources reported in Table 6A-1 in Appendix 6A.

Table 6-3. Estimated Historical (1981-2011) Annual Groundwater Inflows to Basin

Groundwater Inflow Component[1]	Average	Minimum[2]	Maximum[2]
Streamflow Percolation	7,100	1,100	27,200
Agricultural Irrigation Return Flow	1,200	500	2,700
Deep Percolation of Direct Precipitation	3,700	100	13,000
Subsurface Inflow into Basin	2,300	0	5,400
Wastewater Pond Percolation	2,000	1,570	2,540
Nacimiento Water Project Percolation	2	0	74
Urban Irrigation Return Flow	1,200	100	2,800
Total	17,500		

notes:

All values in acre-feet

[1] - Percolation from septic systems is not directly accounted for because it is subtracted from the total estimated rural-domestic pumping to simulate a net rural-domestic pumping amount

[2] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

For the historical base period, estimated total average groundwater inflow ranged from 5,700 AFY to 49,800 AFY, with an average annual inflow of 17,500 AF. The largest groundwater inflow component is streamflow percolation, which accounts for approximately 41 percent of the total annual average inflow. The large difference between the minimum and maximum inflows

from streamflow percolation and direct precipitation reflect the variations in precipitation over the historical base period.

6.3.2.2 Historical Groundwater Outflows

Groundwater outflow components include total groundwater pumping from all water use sectors, subsurface flow out of the Basin, and riparian evapotranspiration. On occasion, the minimum subsurface outflows were negative during the historical base period. Estimated annual groundwater outflows for the historical base period are summarized in Table 6-4.

Table 6-4 Estimated Historical (1981-2011) Annual Groundwater Outflow from Basin

Groundwater Outflow Component	Average	Minimum[1]	Maximum[1]
Total Groundwater Pumping	15,300	11,900	20,400
Subsurface Flow Out of Basin	300	-500	1,400
Riparian Evapotranspiration	500	500	500
Total	16,100		

notes:
All values in acre-feet
[1] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

The largest groundwater outflow component from the Basin is groundwater pumping. Estimated annual groundwater pumping by water use sector for the historical base period is summarized in Table 6-5.

Table 6-5 Estimated Historical (1981-2011) Annual Groundwater Pumping by Water Use Sector from Basin

Water Use Sector	Average	Minimum[1]	Maximum[1]
Agricultural	5,500	2,100	12,900
Municipal	8,900	4,900	12,000
Rural Domestic	300	200	500
Small Public Water Systems	600	600	700
Total	15,300		

notes:
All values in acre-feet
[1] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

Municipal and agricultural pumping were the largest components of total groundwater pumping, accounting for about 58 percent and 36 percent of total pumping over the historical base period, respectively. In general, agricultural pumping decreased and municipal pumping increased over the historical base period. Rural-domestic, and small commercial pumping account for 2 percent and 4 percent, respectively, of total average annual pumping over the historical base period.

6.3.2.3 Historical Groundwater Budget and Changes in Groundwater Storage

Groundwater inflows and outflows for the historical base period are summarized on Figure 6-3 and tabulated in Appendix 6B. Figure 6-3 shows groundwater inflow and outflow components for every year of the historical period. Inflow components are graphed above the zero line and outflow components are graphed below the zero line. Groundwater outflow by pumping (green bars) includes pumping from all water use sectors (Table 6-5).

Figure 6-4 shows annual and cumulative change in groundwater storage during the historical base period. Annual increases in groundwater storage are graphed above the zero line and annual decreases in groundwater storage are graphed below the zero line. The red line shows the cumulative change in groundwater storage over the historical base period.

Figure 6-3. Historical (1981-2011) Groundwater Inflows and Outflows

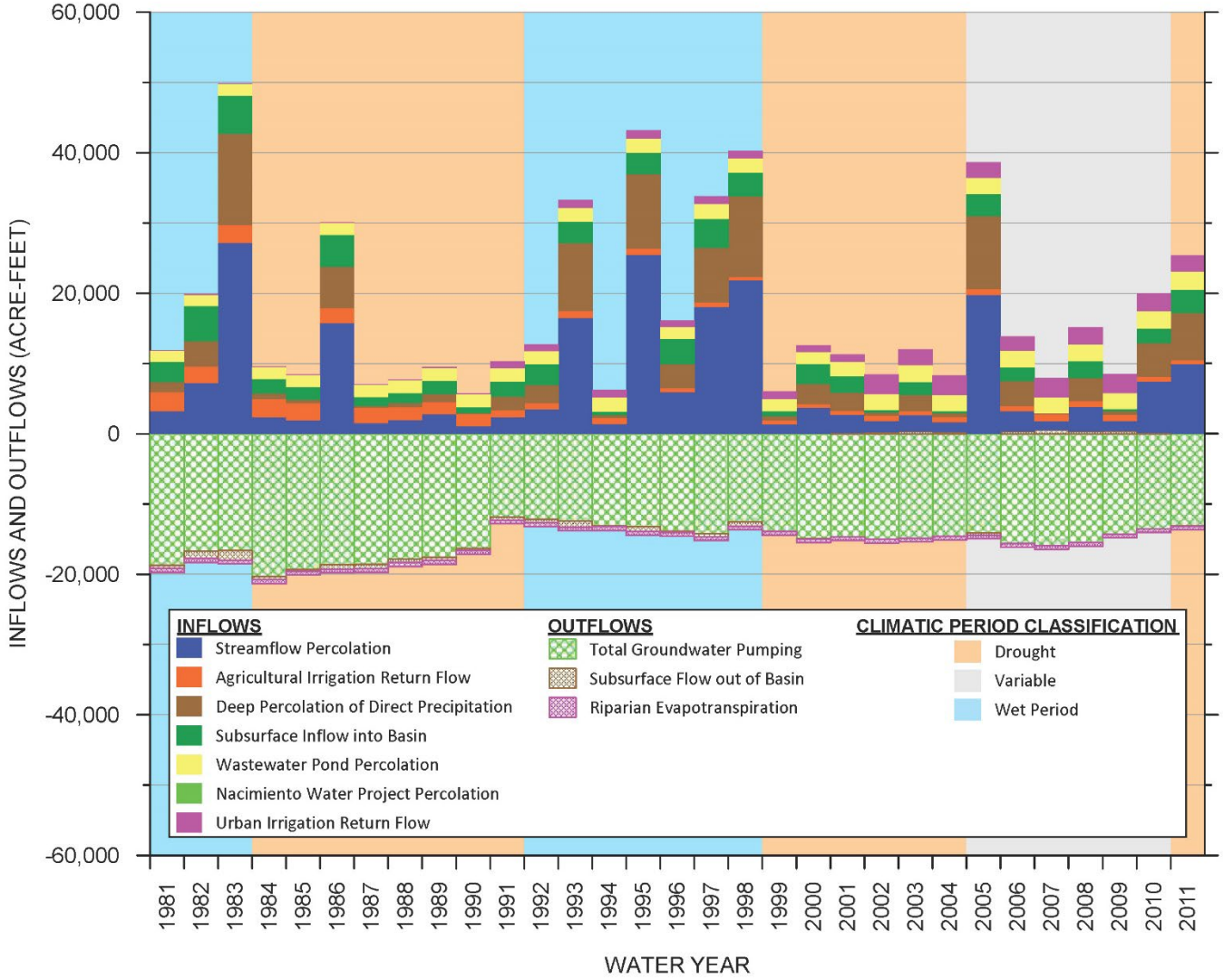
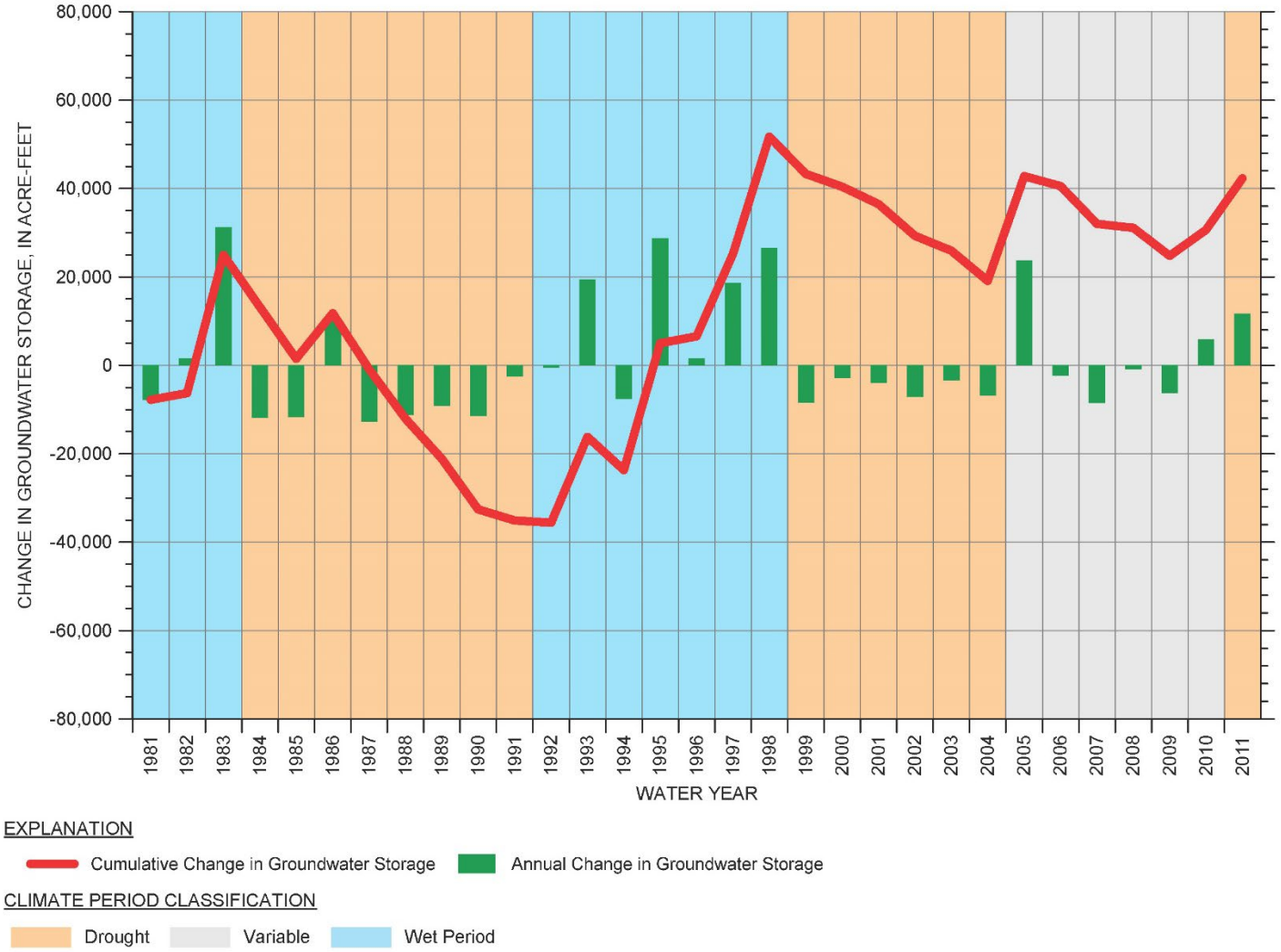


Figure 6-4. Historical (1981-2011) Annual and Cumulative Change in Groundwater Storage



The historical groundwater budget is strongly influenced by the amount of precipitation. During the historical base period, dry conditions prevailed from 1984 through 1991 and 1999 through 2004, as depicted by the orange areas on Figure 6-3 and Figure 6-4. During these dry periods, the amount of recharge and streamflow percolation was relatively low. The net result was a loss of groundwater from storage. In contrast, wet conditions prevailed in the early 1980s and 1992 through 1998, as shown by blue areas on Figure 6-3 and Figure 6-4, and one wet year in 2005. During these wet periods, the amount of recharge and streamflow percolation was relatively high. The net result was a gain of groundwater in storage. The period from 2006 through 2010 had generally alternating years of average precipitation. During this period, the amount of recharge and streamflow percolation was average and the amount of groundwater pumping was relatively high, compared to the prior 15 years. The net result was a loss of groundwater from storage.

The historical groundwater budget is also influenced by the amount of groundwater pumping. Over the historical base period, the total amount of groundwater pumping decreased in the early 1990s, corresponding with a period when irrigation of alfalfa and pasture acreage declined and irrigated vineyard acreage increased (Fugro, 2002). The transition from alfalfa and pasture to vineyard resulted in a net decrease in groundwater pumping because the irrigation demand per acre of vineyards is significantly less than the per-acre demand for alfalfa and pasture. This decrease in pumping contributed to the increase in groundwater in storage during the 1990s.

Over the 31-year historical base period, a net gain of groundwater storage of about 42,300 AF occurred. The average annual groundwater storage gain was approximately 1,400 AFY.

6.3.2.4 Historical Water Balance of the Basin

The computed long-term increase of groundwater in storage indicates that total groundwater inflow exceeded the total outflow in the Basin from 1981 through 2011. As summarized in Table 6-5, total groundwater pumping averaged approximately 15,300 AFY during the historical base period.

Section 354.18(b)(7) of the SGMA Regulations requires a quantification of sustainable yield for the Basin for the historical base period. Sustainable yield is the maximum quantity of groundwater, calculated over a base period representative of long-term conditions in the Basin and including any temporary surplus that can be withdrawn annually from a groundwater supply without causing an undesirable result. The historical safe yield was estimated by summing the estimated average groundwater storage increase of 1,400 AFY with the estimated total average amount of groundwater pumping of 15,300 AFY for the historical base period. This results in a historical safe yield of about 16,700 AFY. This estimated value reflects historical climate, hydrologic and water resource conditions and provides insight into the amount of groundwater pumping that could be sustained in the Basin to maintain a balance between groundwater inflows and outflows.

6.4 Current Water Budget

The SGMA Regulations require that the current surface water and groundwater budget be based on the most recent hydrology, water supply, water demand, and land use information. For the GSP, the period 2012 to 2016 was selected as the time period for the current water budget. In part, the 2012 to 2016 time period was selected because it corresponds with the current water budget period utilized in the Paso Robles Subbasin GSP and it is believed that not only is this time period representative of basin conditions, but the use of the Paso Robles Subbasin GSP model is the best available information and tool for groundwater sustainability planning purposes in the Atascadero Basin.

The current water budget period corresponds to a drought period when annual precipitation averaged about 60 percent of the historical average and streamflow percolation averaged about 19 percent of the historical average. As a result, the current water budget period represents an extreme drought condition in the Basin and is not representative of long-term Basin conditions needed for sustainability planning purposes. Estimates of the surface water and groundwater inflow and outflow, and changes in storage for the current water budget period are provided below.

6.4.1 *Current Surface Water Budget*

The current surface water budget quantifies important sources of surface water. Similar to the historical surface water budget, the current surface water budget includes two surface water source types: local imported supplies and local supplies.

6.4.1.1 Current Local Imported Supplies

Imported surface water from the NWP was utilized by AMWC, TCSD, and the city of Paso Robles to recharge the Basin via percolation in the Alluvium adjacent to the Salinas River during the current water budget period. In addition to TCSD, which began taking NWP water during the historical based period (see Section 6.3.1.1), AMWC and the city of Paso Robles began taking deliveries of NWP water in 2012 and 2013, respectively. Utilization of NWP water peaked in 2015 at 4,792 AF during the height of the latest drought, providing recharge to the Basin. Table 6-6 summarizes the annual average, minimum, and maximum values for the imported NWP water during the current water budget period.

6.4.1.2 Current Local Supplies

Local surface water supplies include surface water flows that enter the Basin from precipitation runoff within the watershed and Salinas River inflow to the Basin (including releases from the Salinas Reservoir), Table 6-6 summarizes the annual average, minimum, and maximum values for these inflows.

Table 6-6. Estimated Current (2012-2016) Annual Surface Water Inflows to Basin

Surface Water Inflow Component	Average	Minimum[2]	Maximum[2]
Inflow to Basin including the Salinas River and Tributaries[1]	5,600	1,300	9,000
Imported (Nacimiento Water Project)	2,158	731	4,792
Total	7,800		

notes:

All values in acre-feet

[1] - Tributaries include Santa Margarita Creek, Paloma Creek, Atascadero Creek, Graves Creek, and Paso Robles Creek

[2] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

The estimated average total inflow from both precipitation runoff and reservoir releases over the current water budget period was approximately 7,800 AFY, or about 9 percent of the average annual 90,600 AFY inflow during the historical base period. The substantial reduction in surface water inflows reflects the drought conditions that prevailed during the current water budget period.

6.4.1.3 Current Surface Water Outflows

The estimated annual average, minimum, and maximum surface water outflow leaving the Basin as flow in the Salinas River and percolation into the groundwater system over the current base period is summarized in Table 6-7. Reductions in surface water outflow for the current water budget period were similar to those reported above for the surface water inflows.

Table 6-7. Estimated Current (2012-2016) Annual Surface Water Outflows from Basin

Surface Water Outflow Component	Average	Minimum[1]	Maximum[1]
Salinas River Outflow from Basin	4,200	100	7,600
Streamflow Percolation	1,400	1,200	1,500
Nacimiento Water Project Percolation	2,158	731	4,792
Total	7,800		

notes:

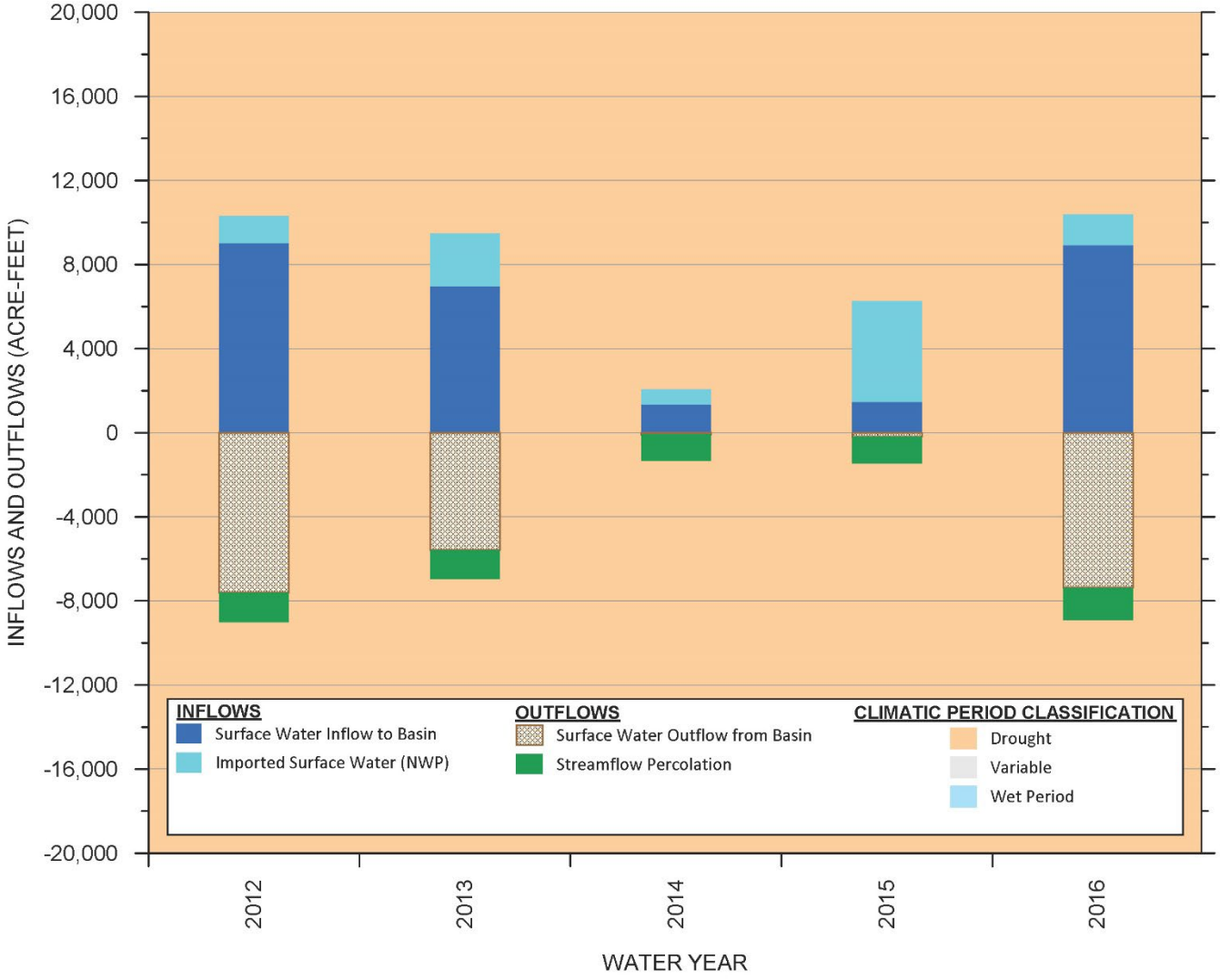
All values in acre-feet

[1] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

6.4.1.4 Current Surface Water Budget

Figure 6-5 summarizes the current surface water budget for the Basin. Figure 6-5 shows the effects of the drought conditions that prevailed during the period 2012 through 2016. During this period, precipitation was well below average, which resulted in very little surface water flow.

Figure 6-5. Current (2012 – 2016) Surface Water Inflows and Outflows



6.4.2 *Current Groundwater Budget*

Groundwater supplied most of the water used in the basin during the current water budget period. The current water budget includes a summary of the estimated groundwater inflows, groundwater outflows, and change in groundwater in storage.

6.4.2.1 Current Groundwater Inflows

Groundwater inflow components include streamflow percolation, agricultural irrigation return flows, deep percolation of direct precipitation, subsurface inflow into the Basin, imported surface water percolation, wastewater pond percolation, and urban irrigation return flow. Estimated annual groundwater inflows for the current water budget period are summarized in Table 6-8.

Table 6-8. Estimated Current (2012-2016) Annual Groundwater Inflows to Basin

Groundwater Inflow Component[1]	Average	Minimum[2]	Maximum[2]
Streamflow Percolation	1,400	1,200	1,500
Agricultural Irrigation Return Flow	1,000	700	1,200
Deep Percolation of Direct Precipitation	600	300	1,400
Subsurface Inflow into Basin	400	0	1,200
Wastewater Pond Percolation	2,520	2,460	2,570
Nacimiento Water Project Percolation	2,158	731	4,792
Urban Irrigation Return Flow	2,700	2,400	2,900
Total	10,800		

notes:

All values in acre-feet

[1] - Percolation from septic systems is not directly accounted for because it is subtracted from the total estimated rural-domestic pumping to simulate a net rural-domestic pumping amount

[2] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

For the current water budget period, estimated total average groundwater inflow ranged from 8,900 AFY to 13,000 AFY, with an average inflow of 10,800 AFY. Notable observations from the summary of groundwater inflows for the current water budget period included:

- Average total inflow during the current water budget period was about 62 percent of the historical base period.
- Unlike the historical base period, when the largest inflow component was streamflow percolation, the largest groundwater inflow component for the current water budget is agricultural and urban irrigation return flows, which together account for approximately 34 percent of the total average inflow.
- The relatively small difference between the minimum and maximum inflows reflects the drought condition that prevailed during the current water budget period, when precipitation and runoff were continuously low.

- Total annual average streamflow percolation in the current water budget period was approximately 20 percent of the streamflow percolation in the historical base period. This reflects the very low streamflows during the drought. The low streamflows had a significant impact on the groundwater basin because streamflow percolation was the most significant source of groundwater recharge during the historical period.
- Total annual average recharge from direct precipitation for the current water budget period was about 16 percent of the recharge from direct precipitation for the historical base period.

6.4.2.2 Current Groundwater Outflows

Groundwater outflow components include total groundwater pumping from all water use sectors and riparian evapotranspiration. Estimated annual groundwater outflows for the current water budget period are summarized in Table 6-9.

Table 6-9. Estimated Current (2012-2016) Annual Groundwater Outflow from Basin

Groundwater Outflow Component	Average	Minimum[1]	Maximum[1]
Total Groundwater Pumping	12,900	11,400	14,500
Subsurface Flow Out of Basin	-200	-300	-100
Riparian Evapotranspiration	500	500	500
Total	13,200		

notes:
All values in acre-feet
[1] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

For the current water budget period, estimated total average groundwater outflows ranged from 11,800 AFY to 14,700 AFY, with an average annual outflow of 13,200 AF. A notable observation from a comparison of the historical (Table 6-4) and current groundwater outflows is:

- Total annual average groundwater pumping was about 16 percent lower during the current water budget period.

The largest groundwater outflow component from the Basin in the current water budget period is pumping. Estimated annual groundwater pumping by water use sector for the current water budget period is summarized in Table 6-10.

Table 6-10. Estimated Current (2012-2016) Annual Groundwater Pumping by Water Use Sector from Basin

Water Use Sector	Average	Minimum[1]	Maximum[1]
Agricultural	2,600	2,200	3,100
Municipal	9,200	7,800	10,800
Rural Domestic	500	500	500
Small Public Water Systems	600	600	600
Total	12,900		

notes:
All values in acre-feet
[1] – Minimum and maximum values are not totaled because the values for each component may have occurred in different years.

For the current water budget period, estimated total average groundwater pumping ranged from 11,400 AFY to 14,500 AFY, with an average pumping of 12,900 AFY. Municipal pumping was the largest component of total groundwater pumping and accounts for about 72 percent of total pumping during the current water budget period. Agricultural, rural-domestic, and small commercial pumping account for 20 percent, 4 percent, and 5 percent, respectively, of total average pumping during the current water budget period.

Notable observations from a comparison of the historical (Table 6-5) and current total annual average groundwater pumping include:

- Total annual average agricultural groundwater pumping was about 53 percent less during the current water budget period when compared to the historical period (decrease of 2,900 AFY).
- Total annual average municipal groundwater pumping was about 4 percent higher during the current water budget period when compared to the historical period (increase of 340 AFY).

6.4.2.3 Current Groundwater Budget and Change in Groundwater Storage

Groundwater inflows and outflows for the current base period are summarized on Figure 6-6. This graph shows inflow and outflow components for every year of the current water budget period. Inflow components are graphed above the zero line and outflow components are graphed below the zero line. Groundwater outflow by pumping (green crosshatched bars) includes pumping from all water use sectors (Table 6-10).

Figure 6-7 shows annual and cumulative change in groundwater storage during the current water budget period. Annual decreases in groundwater storage are graphed below the zero line. The red line shows the cumulative change in groundwater storage over the historical base period.

Figure 6-6. Current (2012-2016) Groundwater Inflows and Outflows

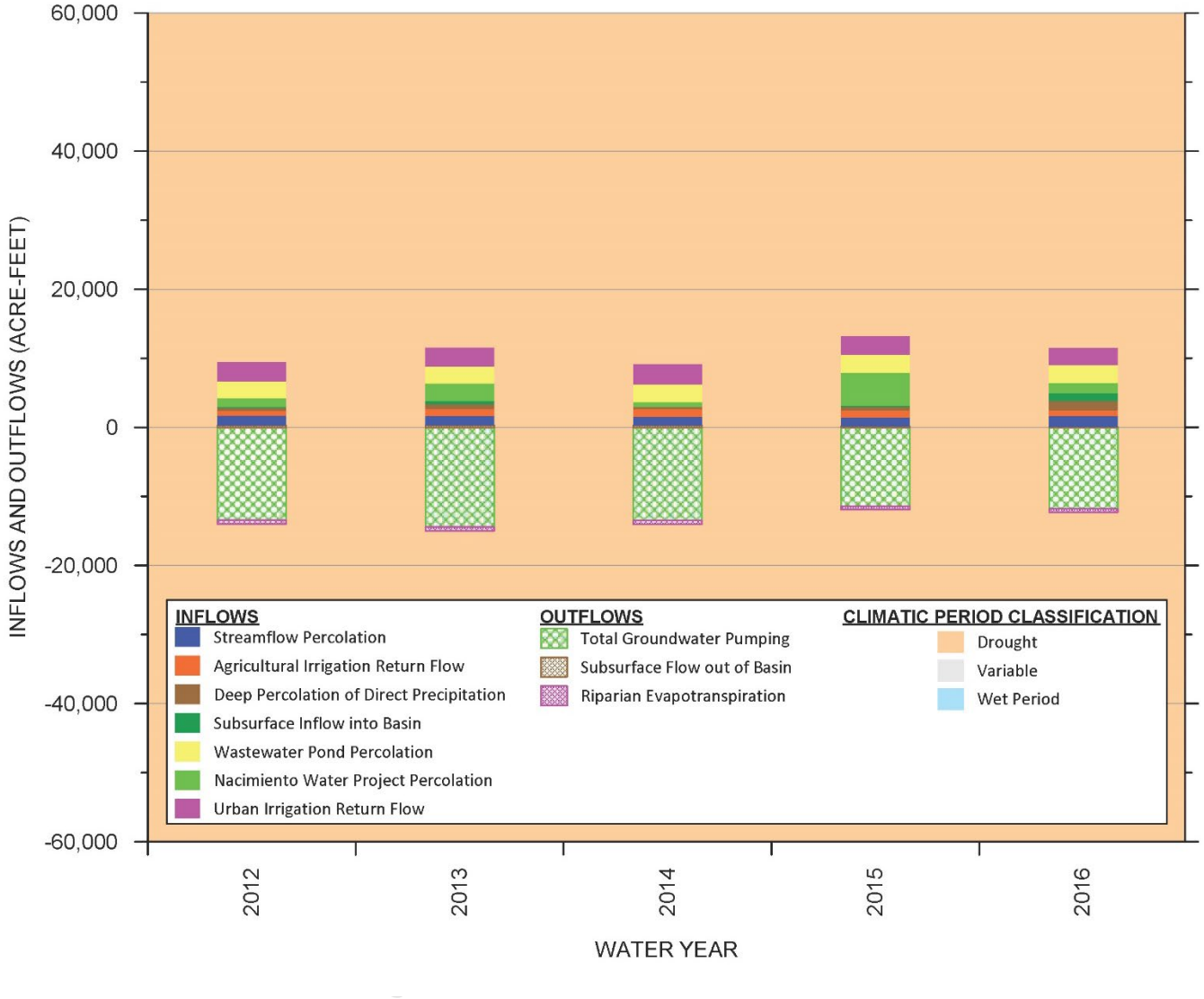
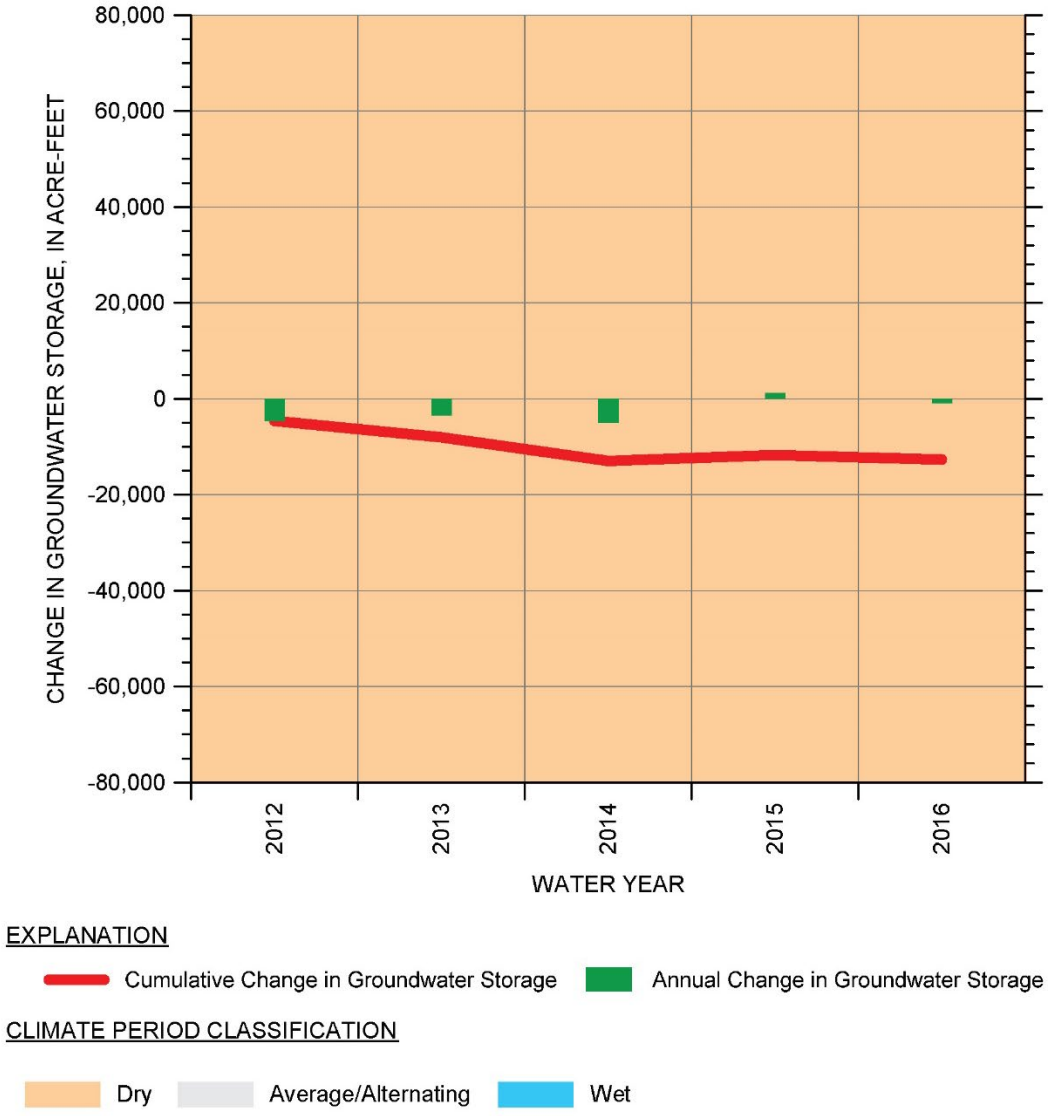


Figure 6-7. Current (2012-2016) Annual and Cumulative Change in Groundwater Storage



The current groundwater budget is strongly influenced by the drought. During the current water budget period, the amounts of streamflow percolation and percolation of direct precipitation were very low and the average amount of total pumping was only slightly less than the historical water budget period. Percolation of imported surface water from the NWP, which had barely come online in the final year of the historical water budget period, played a significant role in mitigating the effects of the recent drought. Over the five-year current water budget period, an estimated net loss of groundwater in storage of about 12,600 AF occurred (Figure 6-7). The annual average groundwater storage loss, or the difference between outflow and inflow to the Basin, was approximately 2,500 AFY.

6.4.2.4 Current Water Balance

The short-term depletion of groundwater in storage indicates that total groundwater outflows exceeded the total inflows over the current water budget period. As summarized in Table 6-9, total groundwater pumping averaged approximately 12,900 AFY during the current period. A quantification of the safe yield for the Basin during the current time period is be estimated by subtracting the average groundwater storage deficit (2,500 AFY) from the total average amount of groundwater pumping (12,900 AFY) to yield about 10,400 AFY. Due to the drought conditions, the current water budget period is not appropriate for long-term sustainability planning.

6.5 Future Water Budget

SGMA Regulations require the development of a future surface water and groundwater budget to estimate future baseline conditions of supply, demand, and aquifer response to GSP implementation. The future water budget provides a baseline against which management actions will be evaluated over the GSP implementation period from 2022 to 2042. Future water budgets were developed using the GSP model.

In accordance with Section 354.18 (c)(3)(A) of the SGMA Regulations, the future water budget should be based on 50 years of historical precipitation, evapotranspiration, and streamflow information. The GSP model includes only 36 years of historical precipitation, evapotranspiration, and streamflow data. Therefore, the future water budget is based on 36 years of historical data rather than 50 years of historical data. It is believed that this time period is representative and is the best available information for groundwater sustainability planning purposes.

6.5.1 *Assumptions Used in Future Water Budget Development*

Assumptions about future groundwater supplies and demands are described in the following subsections.

Future water budgets were developed using the GSP model. During the update process for the GSP model, all model components (e.g., groundwater pumping) of the entire original 2016 GSSI model area were updated, including components within Monterey County and the Paso Robles

Subbasin. However, information provided for the future water budget only pertains to the Atascadero Basin (Figure 1-1), thus do not include areas within Monterey County or the Paso Robles Subbasin.

6.5.1.1 Future Municipal Water Demand and Wastewater Discharge Assumptions

Future municipal water demands and wastewater discharge were estimated for AMWC, TCSD, and the city of Paso Robles based on the following available planning documents:

- Atascadero Mutual Water Company 2015 Urban Water Management Plan (UWMP) (MKN & Associates, 2016),
- Templeton Community Services District Water Supply Buffer Model 2019 Update (TCSD, 2019),
- Paso Robles 2015 Urban Water Management Plan (Todd Groundwater, 2016)

Portions of AMWC's, TCSD's, and the city of Paso Robles' future groundwater demand[3] will be offset by imported NWP water. Total municipal demand in the Basin is projected to increase from about 10,500 AFY in 2020 to about 12,900 AFY in 2042.

Discharge of treated wastewater to the Salinas River provides a source of recharge to the Alluvial Aquifer. Rates of future wastewater discharge were estimated as a percentage of total water demand based on the planning documents listed above for AMWC and TCSD[4]. Wastewater discharge as a percentage of water demand was calculated separately for each water provider. Total wastewater discharge in the Basin is projected to increase from about 2,300 AFY in 2020 to about 3,100 AFY in 2042.

Future municipal water demands and/or wastewater discharge volumes will be adjusted during the implementation of the GSP should they be found to differ from the volumes used in the GSP model.

6.5.1.2 Future Agricultural and other Non-Municipal Water Demand Assumptions

In accordance with Section 354.18 (c)(3)(B) of the SGMA Regulations, the most recently available land use (in this case, crop acreage) and crop coefficient information should be used as the baseline condition for estimating future agricultural irrigation water demand. For the GSP, the most recent crop acreage data was obtained from the office of the San Luis Obispo County Agricultural Commissioner. To account for irrigation efficiency in the future water budget, the reported crop coefficient information from GSSI (GSSI, 2016) was used.

Projections for agricultural irrigation water demand are not available. Agricultural water demand was assumed to increase at a 1 percent annual growth rate. This assumed growth rate is

[3] Note that the city of Paso Robles operates production wells in both the Basin and the Paso Robles Subbasin. Only the portion produced from the Basin is included here.

[4] The city of Paso Robles wastewater discharge occurs outside the Basin (within the Paso Robles Subbasin) and is therefore not included.

considered a conservative estimate. Total agricultural groundwater demand in the Basin is projected to increase from about 2,800 AFY in 2020 to about 3,400 AFY in 2042.

Projections for rural domestic wells and smaller commercial groundwater users, were also not available. Water demand for these users was assumed to increase at a 1 percent annual growth rate. Total rural domestic and smaller commercial users groundwater demand in the Basin is projected to increase from about 1,300 AFY in 2020 to about 1,600 AFY in 2042.

Future agricultural and/or other non-municipal water demands will be adjusted during the implementation of the GSP should they be found to differ from the volumes used in the GSP model.

6.5.1.3 Future Climate Assumptions

The SGMA Regulations require incorporating future climate estimates into the future water budget. To meet this requirement, DWR developed an approach for incorporating reasonably expected, spatially gridded changes to monthly precipitation and reference evapotranspiration (ETo) (DWR, 2018). The approach for addressing future climate change developed by DWR was used in the future water budget modeling for the Basin. The changes are presented as separate monthly change factors for both precipitation and ETo, and are intended to be applied to historical time series within the climatological base period through 2011. Specifically, precipitation and ETo change factors were applied to historical climate data for the period 1981 to 2011 for modeling the future water budget.

DWR provides several sets of change factors representing potential climate conditions in 2030 and 2070. DWR recommends using the 2030 change factors to evaluate conditions over the GSP implementation period (DWR, 2018). Consistent with DWR recommendations, datasets of monthly 2030 change factors for the Atascadero area were applied to precipitation and ETo data from the historical base period to develop monthly time series of precipitation and ETo, which were then used to simulate future hydrology conditions.

6.5.2 *Modifications to Modeling Platform to Simulate Future Conditions*

The existing modeling platform was modified to simulate future conditions, and the results of these simulations are used to develop the future water budget

6.5.2.1 Modification to Soil Water Balance Model

The soil water balance model operates on a daily time scale and tracks daily variations in soil water storage for different agricultural areas in the model domain. For consistency with the monthly climate change factors provided by DWR, the daily model was used to develop monthly soil water balance calculations. These calculations compute irrigation demand as the residual crop evapotranspiration demand unsatisfied by effective precipitation.

These calculations use monthly precipitation and ETo, rescaled by the monthly climate change factors provided by DWR, and the same monthly crop coefficients used in the historical water

budget analysis. Empirical relationships were developed to account for soil moisture carryover from the winter into the spring based on results from the daily soil water balance model.

Monthly applied irrigation water was determined over the future base period from computed monthly crop demand and the crop-specific irrigation efficiencies. The future agricultural irrigation water demand assumptions described above in Section 6.5.1.2 was incorporated into this analysis. Agricultural irrigation return flow is then computed as the difference between the applied irrigation water and the crop demand. Results were then averaged to provide average monthly rates of applied irrigation water and irrigation return flow that would be expected under future climate conditions.

6.5.2.2 Modifications to the Watershed Model

The watershed model operates on a daily time scale and simulates streamflow and infiltration of direct precipitation. The watershed model was modified to account for climate change by rescaling daily precipitation and ETo with the monthly climate change factors provided by DWR. The watershed model was then re-run using the modified precipitation and ETo values.

Results from the modified historical base period simulation were then averaged to provide average monthly rates of infiltration of direct precipitation and streamflow under future climate conditions.

6.5.2.3 Modifications to the Groundwater Model

The groundwater model operates at a semi-annual time scale, with stress periods representing six-month periods. The groundwater model was extended and modified to simulate the period 2020 to 2042. Starting groundwater levels for the future simulation were set to groundwater levels at the end of Water Year (WY) 2016, extracted from the updated groundwater model.

Future groundwater recharge components were computed using the modified soil water balance model and watershed model, as described above. Future streamflow generated both inside and outside the Basin was computed using the modified watershed model.

Future groundwater recharge and streamflow are specified in the groundwater model as repeating average time-series, based on average monthly calculation of excess irrigation water, recharge of direct precipitation, and streamflow. This approach was adopted to simplify the future water budget and allow reporting of average future conditions accounting for climate change. Future pumping and wastewater return flows are the only inputs to the groundwater model that exhibit a long-term trend over the implementation period.

6.5.3 *Projected Future Water Budget*

Future surface water and groundwater budgets were projected.

6.5.3.1 Future Surface Water Budget

The future surface water budget includes average inflows from local imported supplies, average inflows from local supplies, average stream outflows, and average stream percolation to

groundwater. Table 6-11 and Table 6-12 summarize the average components of the projected surface water budget.

Table 6-11. Projected Future Annual Surface Water Inflows to Basin

Surface Water Inflow Component	Average
Inflow to Basin including the Salinas River and Tributaries[1]	96,400
Imported (Nacimiento Water Project)	2,600
Total	99,000

notes:

All values in acre-feet

[1] - Tributaries include Santa Margarita Creek, Paloma Creek, Atascadero Creek, Graves Creek, and Paso Robles Creek

Table 6-12. Projected Future Annual Surface Water Outflows from Basin

Surface Water Outflow Component	Average
Salinas River Outflow from Basin	92,000
Streamflow Percolation	4,400
Nacimiento Water Project Percolation	2,600
Total	99,000

notes:

All values in acre-feet

6.5.3.2 Future Groundwater Budget

Projected groundwater budget components are computed using the modified groundwater flow model to simulate average conditions over the implementation period. Table 6-13 summarizes projected annual groundwater inflows. In contrast to the historical groundwater budget, which accounted for month-to-month variability, the projected groundwater budget is based on average monthly inflows. Therefore, variability in simulated groundwater budget components is minor, and minimum and maximum values are not included in Table 6-13.

Table 6-13. Projected Future Annual Groundwater Inflows to Basin

Groundwater Inflow Component1	Average
Streamflow Percolation	4,400
Agricultural Irrigation Return Flow	900
Deep Percolation of Direct Precipitation	3,700
Subsurface Inflow into Basin	1,600
Wastewater Pond Percolation	2,800
Nacimiento Water Project Percolation	2,600
Urban Irrigation Return Flow	1,900
Total	18,000

notes:

All values in acre-feet

1 - Percolation from septic systems is not directly accounted for because it is subtracted from the total estimated rural-domestic pumping to simulate a net rural-domestic pumping amount

The total average annual groundwater inflow is 500 AF greater during the future period than during the historical base period. Although, annual stream percolation is projected to be 2,700 AF less during the future period than during the historical base period, the increased imported surface water percolation nearly makes up for it. Lesser increases in urban irrigation return flow and wastewater percolation offset minor reductions in agricultural irrigation return flow and subsurface inflow between the historical base period and the projected future period. Reduction in agricultural irrigation return flow is due partly to changes in historical cropping patterns and partly to improvements in vineyard irrigation efficiency.

Table 6-14 summarizes projected annual groundwater outflows.

Table 6-14. Projected Future Annual Groundwater Outflow from Basin

Groundwater Outflow Component	Average
Total Groundwater Pumping	16,400
Subsurface Flow Out of Basin	200
Riparian Evapotranspiration	600
Total	17,200

notes:

All values in acre-feet

The total average annual groundwater outflow is estimated to be 1,100 AF greater during the future period than during the historical base period. Future total annual groundwater pumping is projected to increase by about 1,100 AF compared to the historical base period.

6.5.3.3 Future Safe Yield

The projected future groundwater budget shows the Basin to be generally in balance, with projected groundwater inflows of about 18,000 AFY and projected groundwater outflows of about 17,200 AFY. The projected future surplus indicates an average annual increase in groundwater in storage of 800 AFY. A calculated annual volume for the projected future safe yield of the Basin was estimated by adding the average groundwater storage surplus of 800 AFY to the total projected future average amount of groundwater pumping of 16,400 AFY, therefore the future safe yield for the Basin is estimated to be approximately 17,200 AFY.

The estimated future safe yield of 17,200 AFY is 500 AFY greater than the estimated safe yield for the historic base period. This close comparison of safe yield values between the two periods indicates that projected future climate change is not expected to have a substantial impact on the safe yield.

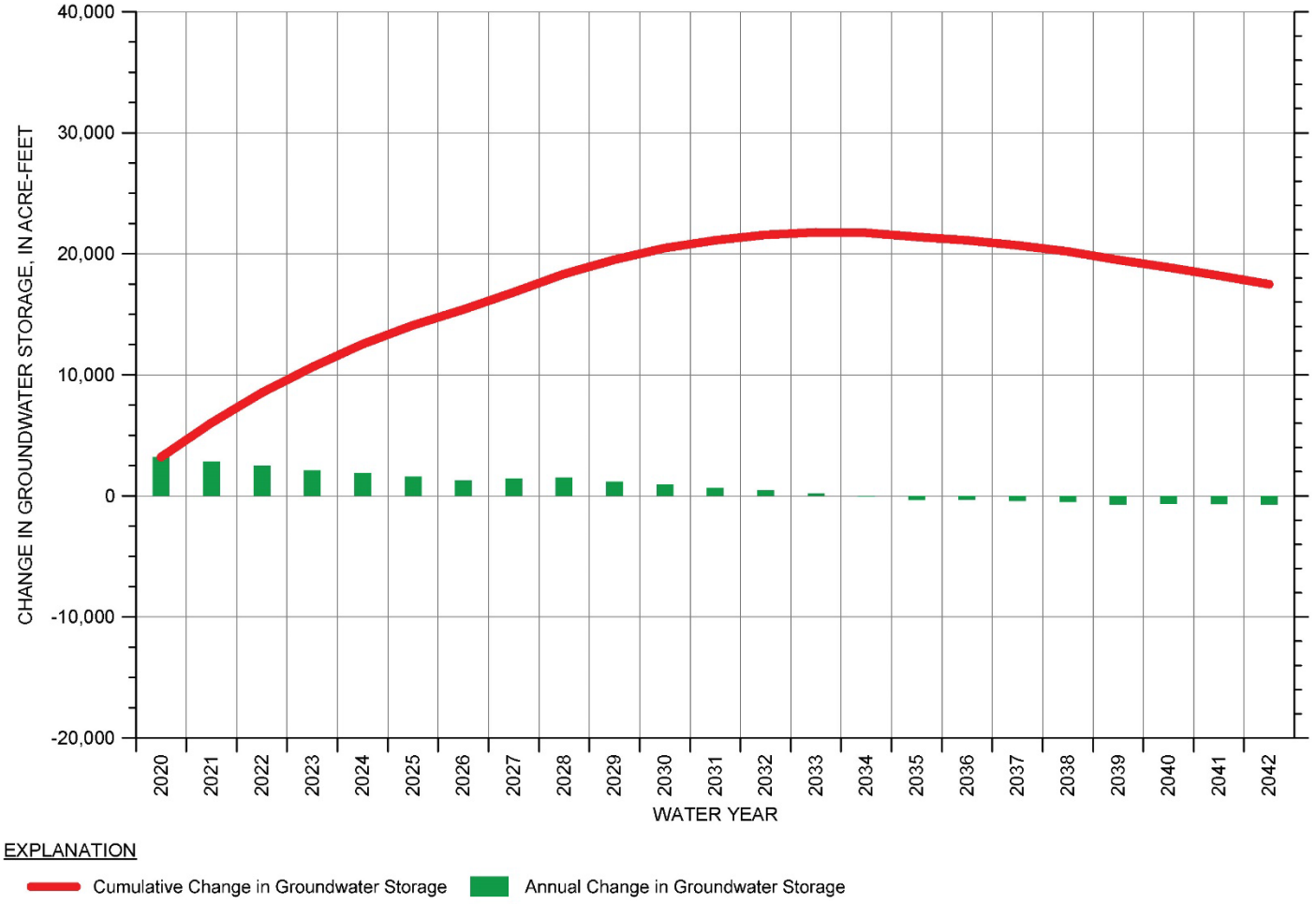
The primary reason that the average safe yield increases in the future compared to the historical period, even coupled with the assumed climate change modifiers and increased projected pumping from all users, is the added beneficial component of increased future use of the NWP water. However, as demonstrated by the projected cumulative change in storage curve presented on Figure 6-8, the benefits of increased NWP utilization is expected to be overtaken by the assumed 1 percent annually increasing pumping demands by the year 2034.

The cumulative change of groundwater in storage is projected to remain well above zero by the year 2042, however its downward trend in later years suggests the possibility of a groundwater storage deficit in the distant future (well beyond 2042) without further mitigation measures.

It is likely that the 1 percent annual growth rate assumption for non-municipal pumping is overly conservative. Adjusting this to a lower or a flat growth rate at some future date would be one such potential mitigation measure. Regardless, the imported NWP supply augments the natural basin recharge components and provides the municipal purveyors a water resource management tool that allows for effective management of the Basin for the foreseeable future.

The calculated safe yield of the Basin is a reasonable estimate of the long-term pumping that can be maintained without a long-term lowering of groundwater levels. The sustainable yield of the Basin, which will be estimated after an assessment of the sustainable management criteria and identification of potential undesirable results, will be estimated later. Sustainable yield looks to the presence or absence of undesirable results, not strictly inflows and outflows. The definitive sustainable yield can only be determined once undesirable results have been shown to have not occurred. The sustainable yield estimate may be revised in the future as new data become available during GSP implementation.

Figure 6-8. Projected Future Cumulative Change in Groundwater Storage



6.6 References

California Department of Water Resources (DWR) (2016a), Best Management Practices for the Sustainable Management of Groundwater – Water Budget BMP. December, 2016.

DWR (2016b), California's Groundwater: Bulletin 118 Interim Update.

DWR (2018), Guidance for Climate Change Data Use During Groundwater Sustainability Plan Development. July 2018.

Fugro West, Inc., and Cleath and Associates (Fugro) (2002), Final Report, Paso Robles Groundwater Basin Study: unpublished consultant report prepared for the County of San Luis Obispo Public Works Department, August 2002.

Fugro West, Inc., ETIC Engineering, and Cleath and Associates (Fugro) (2005), Final Report, Paso Robles Groundwater Basin Study: Phase II Numerical Model Development, Calibration, and Application. Prepared for the County of San Luis Obispo Public Works Department, February 2005.

Geoscience Support Services, Inc.(GSSI) (2014), Paso Robles Groundwater Basin Model Update, December 2014.

GSSI (2016), Refinement of the Paso Robles Groundwater Basin Model and Results of Supplemental Water Supply Options Predictive Analysis, December 2016.

MKN & Associates, (2016), 2015 Urban Water Management Plan for the Atascadero Mutual Water Company, Draft for Public Review: May 2016.

Montgomery and Associates (M&A) (2020), Paso Robles Subbasin Groundwater Sustainability Plan. Prepared for the Paso Robles Subbasin Cooperative Committee and the Groundwater Sustainability Agencies. November 13, 2019.

Templeton Community Services District (TCSD) (2019), Water Supply Buffer Model 2019 Update.

Todd Groundwater (Todd) (2016), City of Paso Robles 2015 Urban Water Management Plan, Final: July 2016.

Appendix 6A: Model Update and Modifications

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Tables

Figures

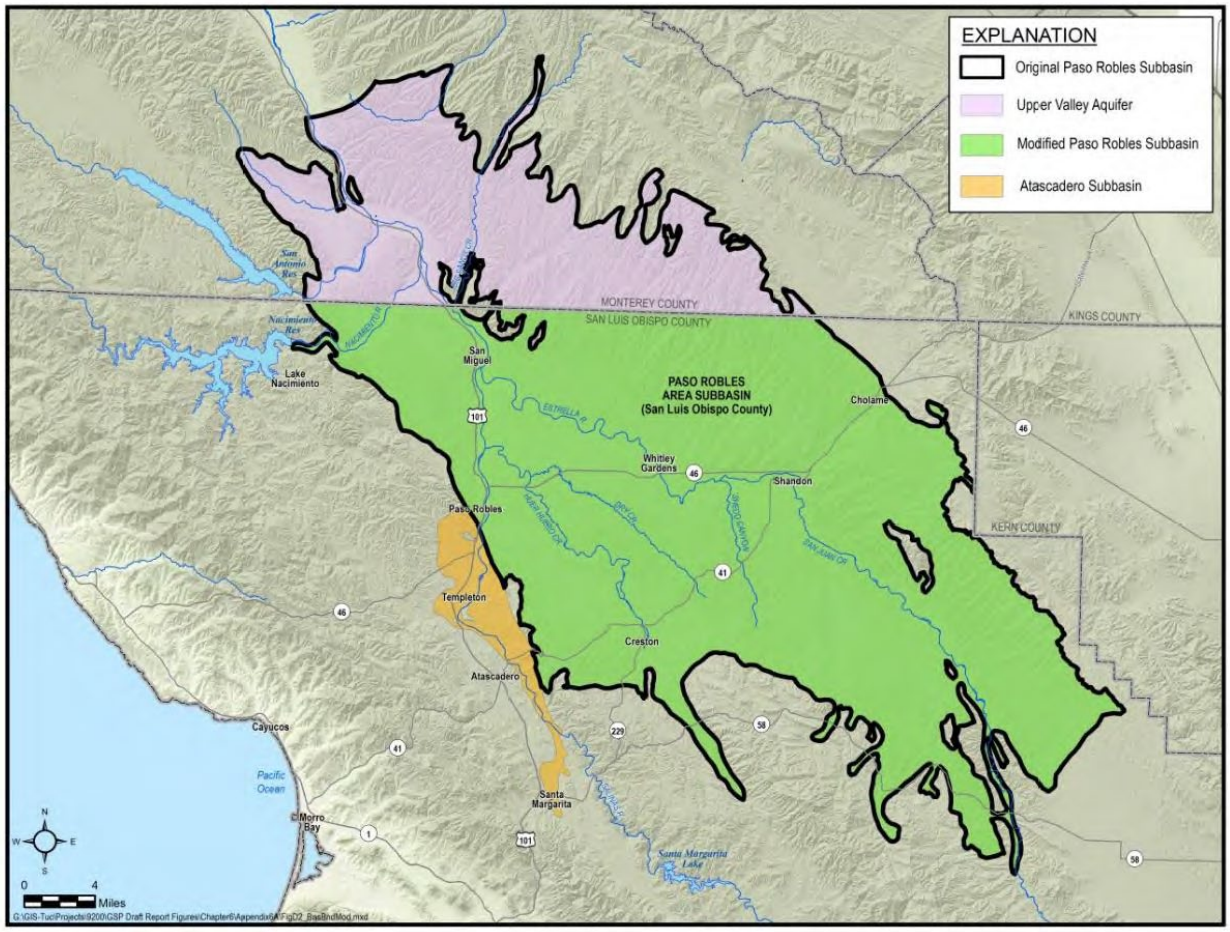
Introduction

This appendix briefly summarizes modeling work done for the Groundwater Sustainability Plan (GSP). As described in Section 6, the hydrologic modeling platform was developed for the Paso Robles Subbasin by various authors during the period from 2005 through 2020. Montgomery and Associates (M&A) performed the final modifications and updates to the modeling platform that were utilized for both this Atascadero Basin GSP and the Paso Robles Subbasin GSP (M&A, 2020). Work conducted by M&A included the following activities:

- Updating the platform with recent hydrologic information,
- Modifying certain components of the platform to address computational issues identified during the update process,
- Adapting the water budgeting process to be consistent with new boundaries, including segregation of the Atascadero Subbasin (Atascadero Basin, or Basin) and the Paso Robles Subbasin. Segregation of the portion of the Paso Robles Subbasin north of the San Luis Obispo County line was previously performed by M&A. Figure 1 shows the Basin boundary (in orange) and the new Paso Robles Subbasin boundary (in green); the GSP only applies to the Atascadero Basin, thus, water budgets reported in the GSP do not include areas within the newly defined Paso Robles Subbasin or areas that lie north of the San Luis Obispo County line.

This appendix is substantially similar to Appendix E of the Paso Robles Subbasin GSP, prepared by M&A (2020). It has been modified to include work performed during development of the Atascadero Basin GSP.

Figure 9. Map Showing Original and Modified Paso Robles Subbasin Boundaries and the Atascadero Subbasin (Source: M&A, 2020)



This appendix summarizes the model update process and effects of changes to the modeling platform and boundaries on computed groundwater budgets.

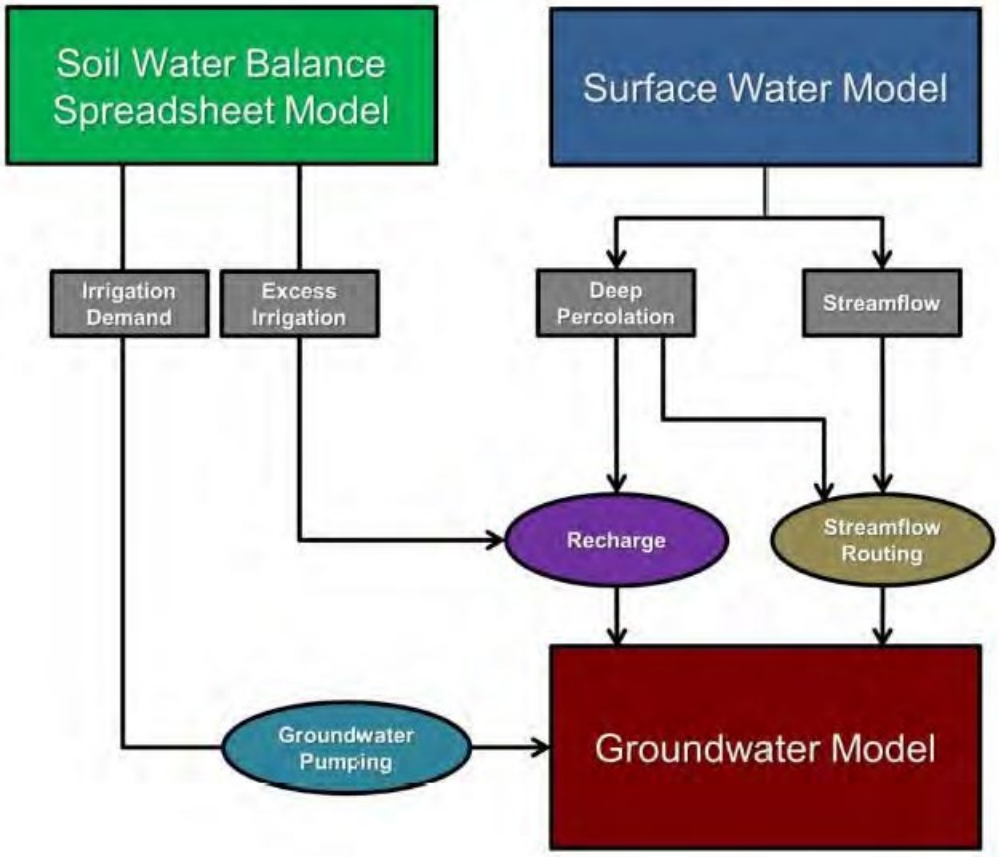
The appendix is subdivided into the following sections.

- Description of GSP Model
- Model Update
- Model Modifications

The hydrologic modeling platform includes a numerical groundwater flow model and two additional models that are used to compute groundwater model input data for streamflow, recharge, and groundwater pumping [Geoscience Support Services, Inc. (GSSI), 2014 and 2016]. The two additional models consist of a Soil Water Balance (SWB) spreadsheet model and a surface water model. The interrelationship between the groundwater model, SWB model, and

surface water model are shown on Figure 2. Hereafter in this appendix, the original hydrologic modeling platform developed by GSSI is referred to as "the GSSI model."

Figure 10. Schematic for Modeling Platform (Source: M&A, 2020)



The GSSI model was updated by M&A for the GSP. The M&A model update process included compiling hydrologic data and preparing model input files to extend the simulation time period from 2012 through 2016. Model modifications included changes to model structure, input/output processing routines, and model assumptions. Modifications were made to address issues that had a potentially significant impact on the computed water budget and groundwater storage calculations.

The GSP model was not recalibrated by M&A. In lieu of recalibration, a focused comparison of model-projected and observed groundwater elevations at wells and stream flows at selected stream gages was conducted. Results of this comparison indicated that the calibration of the GSP model was similar to the GSSI model, thus, the model was considered appropriate for use on both this Atascadero Basin GSP and the Paso Robles Subbasin GSP.

Description of GSP Model

Soil Water Balance Spreadsheet Model

The SWB model uses rainfall, evapotranspiration, soil, and crop data to estimate groundwater irrigation demand for crops in the Basin. Irrigated crops are assigned to seven crop categories (Carollo and others, 2012), including alfalfa, nursery, pasture, citrus, deciduous, vegetables, and vineyard. For the GSP model, geospatial crop datasets compiled by the Agricultural Commissioner's Office of San Luis Obispo County were intersected with different climate zones and soil types within the Basin and the surrounding watersheds. For each of the seven crop categories, existing discrete SWB models were extended in time for each unique intersection of crop acreage, climate zone, and soil type to cover the current period (2012-2016).

The underlying structure and data requirements are identical for all of the SWB spreadsheet models, except vineyards. All of the SWB models operate on a daily time step and require daily precipitation and reference evapotranspiration rates as input. SWB models developed for vineyards also require daily minimum temperature data to estimate frost prevention groundwater pumping during March and April.

The SWB model computes daily irrigation demand rates in inches. Groundwater pumping to satisfy the irrigation demand is higher than the actual crop demand due to excess irrigation losses, which depend on assumed irrigation efficiency. The study documented by GSSI (2014) defined irrigation efficiency for each of the seven crop categories, and those efficiency values were also used by M&A. The difference between groundwater pumping and crop irrigation demand is assumed to percolate past the base of the root zone, ultimately becoming groundwater recharge. This recharge is referred to as irrigation return flow in GSP Section 6.

Surface Water Model

A surface water model was developed by GSSI (2014) for contributing watersheds. The surface water model was developed using the Hydrologic Simulation Program – Fortran (HSPF) code. The model simulates land surface processes and surface water flow at the subwatershed scale (Bicknell and others, 2001). The surface water model simulates daily time steps, and requires daily precipitation, reference evapotranspiration, and reservoir releases as input. Historical watershed simulations developed by GSSI (2014) used land use data for 1985, 1997, and 2011 in the surface water model. The 2011 land use data were used by M&A to update the GSP model.

The surface water model simulates deep percolation of precipitation past the base of the root zone and streamflow leaving the outlet of each subwatershed. The amount of deep percolation of precipitation computed by the surface water model was included in the recharge assigned to the groundwater model, and simulated streamflow at the subwatershed outlet was used to compute surface flow rates for stream segments simulated in the groundwater model.

Groundwater Model

The groundwater flow model for the Paso Robles Subbasin and subsequent use for the Atascadero Basin uses the MODFLOW-2005 code (GSSI, 2014 and 2016). The extent and structure of the GSSI model are based on an earlier version of the groundwater flow model developed by Fugro (2005). Groundwater inflows simulated in the model include areal recharge, subsurface inflow at the model boundaries, and streambed percolation. Areal recharge includes both recharge from precipitation and irrigation return flow. Groundwater outflows simulated in the model include subsurface outflow, groundwater pumping, and riparian evapotranspiration.

Areal recharge and subsurface inflow are computed based on excess irrigation from the SWB model and deep percolation of precipitation from the surface water model. Streambed percolation depends on both simulated water table elevation and simulated streamflow, which in turn is based on simulated streamflow from the surface water model. Agricultural groundwater pumping is specified based on irrigation demand computed in the SWB model.

Model Update

SGMA regulations require estimation of surface water and groundwater budgets for both a historical base period and current period. For the Basin, the historical base period covers Water Years (WY) 1981 through 2011 and the current period covers WY 2012 through 2016. The GSSI model covered only the historical base period (GSSI, 2014; GSSI, 2016). To comply with SGMA regulations for developing a current water budget, M&A updated the 2016 version of the GSSI model to include hydrologic data from 2012 through 2016.

Each of the three components of the modeling platform were updated to include the current period. Table 1 lists datasets used for the model update, along with the source for each dataset.

Table 15. Data Sources for Model Update (modified from Paso Robles Subbasin GSP Appendix E (M&A, 2020))

Dataset	Responsible Agency or Entity	Type of Data	Data Source
Meteorological Data			
Paso Robles Station (46730); Santa Margarita Booster Station (47933)	NOAA[1]	Daily precipitation	https://www.ncdc.noaa.gov
San Miguel Wolf Ranch (47867)	NOAA[1]	Daily precipitation	https://www.ncdc.noaa.gov/
Oak Shores WWTP (201)	San Luis Obispo County	Daily precipitation	Electronic transmittal from SLO County
Paso Robles	WWG[2]	Daily reference evapotranspiration	Electronic transmittal
Atascadero (163)	CIMIS[3]	Daily reference evapotranspiration	https://cimis.water.ca.gov/WSNReportCriteria.aspx
Hydrologic Data			
Nacimiento Reservoir	Monterey County Water Resources Agency	Daily reservoir releases	https://www.co.monterey.ca.us/government/government-links/water-resources-agency

Dataset	Responsible Agency or Entity	Type of Data	Data Source
San Antonio Reservoir	Monterey County Water Resources Agency	Daily reservoir releases	https://www.co.monterey.ca.us/government/government-links/water-resources-agency
Salinas Dam	San Luis Obispo County	Daily reservoir releases	https://wr.slocountywater.org/site.php?site_id=25&site=2d50a617-2e23-4efc- a9be-e3a2c4a7100b
Water Use Data			
San Miguel CSD	San Miguel CSD	Monthly groundwater pumping	Excel file (Paso_Water_Use_Tables_v7.xlsx) received from GEI Consultants on 14 June 2018; data provided to GEI by San Miguel CSD
City of Paso Robles	City of Paso Robles	Monthly groundwater pumping	Historical based on Excel file (Paso_Water_Use_Tables_v7.xlsx) received from GEI Consultants on 14 June 2018; data provided to GEI by City of Paso Robles. Projected based on Paso Robles 2015 Urban Water Management Plan.
Templeton CSD	Templeton CSD	Annual groundwater pumping	Templeton Community Services District Water Supply Buffer Model 2019 Update
Atascadero MWC	Atascadero MWC	Annual groundwater pumping	Atascadero MWC 2015 Urban Water Management Plan
Small commercial pumping	N/A	Annual groundwater pumping	Paso Robles portion of model: For pumping that started before 2010, projected based on historic use in 2016 model (linear regression trend). For water use that began in 2010; assume 1% annual increase through 2016. Atascadero portion of model: Assumed 1% annual increase.
Domestic pumping	N/A	Annual groundwater pumping	Paso Robles portion of model: Projected based on historic use in 2016 model (linear regression trend). Atascadero portion of model: Assumed 1% annual increase.
Agricultural pumping	N/A	Annual groundwater pumping	Pumping based on groundwater demand from soil water-balance spreadsheets. Atascadero portion of model: Projected demand based on 1% annual increase.
Imported Surface Water			

Dataset	Responsible Agency or Entity	Type of Data	Data Source
Imported Surface Water Recharge (including Nacimiento Water Project and State Water Project)	N/A	Annual recharge to groundwater from imported sources	Historical based on records provided by contract holders. Projected based on Agency planning documents.
Wastewater Recharge			
Wastewater recharge (all utilities)	N/A	Annual recharge to groundwater from wastewater	Projected based on Agency planning documents.
Crop Data			
San Luis Obispo County, 2013-2016	San Luis Obispo County	Geospatial data attributed with acreage and crop group	Electronic transmittal from SLO County
State of California, 2014	CA DWR4	Geospatial data attributed with acreage and crop group	https://gis.water.ca.gov/app/CADWRLandUseViewer/

Notes:
(1) National Oceanic and Atmospheric Administration
(2) Western Weather Group
(3) California Irrigation Management Information System
(4) California Department of Water Resources

Model Modifications

Modifications to Model Components

Groundwater budgets for the Basin were derived from the groundwater flow model, which depends on the SWB models and surface water model for key input data. During the model update process for the GSP model, M&A made several modifications to the individual models to improve two computational aspects of the model.

Modifications to Agricultural Irrigation Routing

In the model input files developed by GSSI, irrigation return flow was routed to the surface water model. This irrigation return flow was treated as an external lateral surface inflow to the land surface. The surface water model combines this water with all direct precipitation that was not intercepted by the crop canopy. Some of the water accumulating at the land surface becomes streamflow. The remaining water enters the soil root zone. In the GSSI model, excess irrigation return flow water accumulating in the upper and lower soil root zones was subject to evapotranspiration. However, excess irrigation return flow represents water that has moved past the root zone and should not be subject to evapotranspiration. Thus, irrigation return flow was inadvertently subjected to soil evaporation twice. The net effect of double-counting soil evaporation was to underestimate the quantity of water that ended up as deep percolation to groundwater.

The models were modified so that irrigation return flow calculated in the SWB models was routed to groundwater recharge in the groundwater flow model instead of routed to the surface water model. As a result, areal recharge specified in the GSP model is greater than areal recharge specified in the GSSI model (M&A, 2020).

Modifications to Streamflow Routing Outside the Paso Robles Subbasin

In the GSSI model, subsurface inflow was computed as the sum of irrigation return flow, deep percolation of direct precipitation, and streambed percolation occurring outside the Subbasin boundaries. Streambed percolation was computed by HSPF as an outflow from each stream reach. The streambed percolation was computed using reference information from the HSPF Best Management Practices toolkit developed by the U.S. Environmental Protection Agency (GSSI, 2014).

Modifications were made to the process described above to ensure consistency in the simulated water balance. In HSPF, stream outflows and streambed percolation are routed to the next downstream stream reach. Consequently, when a stream enters the margin of the groundwater model, HSPF routes all of the streamflow and streambed percolation into the stream network within the groundwater model domain. However, in the GSSI model, the streambed percolation water was also being added to the groundwater model as subsurface inflow. This means

percolating water through streambeds in the watershed outside of the Subbasin was being double counted: as both stream inflow and subsurface inflow.

To avoid double counting the inflow, M&A modified the groundwater model input files so that subsurface inflow no longer included HSPF model-computed streambed percolation outside groundwater model domain. The primary effect of this change was a reduction in subsurface inflow into the groundwater model. A secondary effect of this change was a reduction in inflow to streams inside the groundwater model domain due to excess subsurface inflow.

Reduction in stream inflows as a result of modifications described above is due to an input processing procedure developed by GSSI (2016). Specifically, the 2016 version of the GSSI model included an empirical procedure for re-assigning computed subsurface inflow above a threshold value as surface water inflow to streams inside the Subbasin boundaries. The GSP model uses the same procedure; however, streambed percolation is no longer double counted, thus computed subsurface inflow in excess of the threshold is lower in the GSP model than compared to the GSSI (2016) model.

Summary of Effects of Model Modifications

The net effect of correcting excess agricultural irrigation routing was to increase areal recharge. The net effect of removing streambed percolation computed by the surface water model from subsurface inflow to the groundwater model was to reduce both subsurface inflow and surface water inflow to streams in the groundwater flow model. The combined effect of these two modifications was to reduce the amount of water recharging the groundwater system.

Change in Subbasin Boundary

The boundary of the Paso Robles Subbasin changed between completion of the 2016 GSSI model and the GSP model update. In 2018, the California Department of Water Resources (DWR) redefined the Paso Robles Subbasin boundary in response to two basin boundary modification requests. As a result of this modification, the Atascadero Subbasin (Basin), and all land north of the Monterey County line are no longer included in the Paso Robles Subbasin (Figure 1). Groundwater budgets for the Atascadero Basin GSP are reported for the smaller Basin area only. Previous groundwater budgets using the 2016 GSSI model were reported for the entire original Paso Robles Groundwater Subbasin, which included the Atascadero Basin (GSSI, 2016).

References

Bicknell, B.R., Imhoff, J.C., Kittle, J.L.Jr., Jobes, T.H., and Donigian, A.S.Jr. (2001). Hydrological Simulation Program-Fortran, User's Manual for Version 12. National Exposure Research Laboratory, U.S. Environmental Protection Agency, Athens, GA.

Carollo, West Yost Associates, Fugro West, Cleath and Associates, Environmental Science Associates (2012), San Luis Obispo County Master Water Report.

Fugro West, Inc., ETIC Engineering, and Cleath and Associates (Fugro) (2005), Final Report, Paso Robles Groundwater Basin Study: Phase II Numerical Model Development, Calibration, and Application. Prepared for the County of San Luis Obispo Public Works Department, February 2005.

Geoscience Support Services, Inc.(GSSI) (2014), Paso Robles Groundwater Basin Model Update, December 2014.

GSSI (2016), Refinement of the Paso Robles Groundwater Basin Model and Results of Supplemental Water Supply Options Predictive Analysis, December 2016.

Montgomery and Associates (M&A) (2020), Paso Robles Subbasin Groundwater Sustainability Plan. Prepared for the Paso Robles Subbasin Cooperative Committee and the Groundwater Sustainability Agencies. November 13, 2019.

Appendix B. AMERICAN WATER WORKS ASSOCIATION

WATER AUDIT RESULTS

AWWA Free Water Audit Software v5.0

This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

Please begin by providing the following information

Name of Contact Person:	John B Neil
Email Address:	jneil@amwc.us
Telephone (incl Ext.):	(805) 466-2428
Name of City / Utility:	Atascadero Mutual Water Co
City/Town/Municipality:	Atascadero
State / Province:	California (CA)
Country:	USA
Year:	2019 Calendar Year
Audit Preparation Date:	8/28/2020
Volume Reporting Units:	Million gallons (US)
PWSID / Other ID:	4010002

The following guidance will help you complete the Audit

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page

Instructions
The current sheet. Enter contact information and basic audit details (year, units etc)

Reporting Worksheet
Enter the required data on this worksheet to calculate the water balance and data grading

Comments
Enter comments to explain how values were calculated or to document data sources

Performance Indicators
Review the performance indicators to evaluate the results of the audit

Water Balance
The values entered in the Reporting Worksheet are used to populate the Water Balance

Dashboard
A graphical summary of the water balance and Non-Revenue Water components

Grading Matrix
Presents the possible grading options for each input component of the audit

Service Connection Diagram
Diagrams depicting possible customer service connection line configurations

Definitions
Use this sheet to understand the terms used in the audit process

Loss Control Planning
Use this sheet to interpret the results of the audit validity score and performance indicators

Example Audits
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

Acknowledgements
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Atascadero Mutual Water Co (4010002)
Reporting Year: 2019 | 1/2019 - 12/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	6	1,628.000	MG/Yr	4	0.31%		MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,622.969 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	8	1,436.000	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:	7	4.250	MG/Yr		4.250	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 1,440.250 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 182.719 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		4.057	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	6	-14.921	MG/Yr	-1.05%		MG/Yr
Systematic data handling errors:	6	3.590	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: -7.274 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 189.993 MG/Yr

WATER LOSSES: 182.719 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 186.969 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	246.0	miles
Number of active AND inactive service connections:	8	10,766	
Service connection density:		44	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 6 | 103.0 psi

COST DATA

Total annual cost of operating water system:	10	$4,524,763	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$3.15	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	5	$558.69	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 67 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Variable production cost (applied to Real Losses)
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

Water Audit Report for: Atascadero Mutual Water Co (4010002)
Reporting Year: 2019 | 1/2019 - 12/2019

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 67 out of 100 ***

System Attributes:

	Apparent Losses:	(7.274)	MG/Yr
+	Real Losses:	189.993	MG/Yr
=	**Water Losses:**	**182.719**	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	110.75	MG/Yr
	Annual cost of Apparent Losses:	-$22,913	
	Annual cost of Real Losses:	$106,147	Valued at **Variable Production Cost**

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	11.5%	
	Non-revenue water as percent by cost of operating system:	1.9%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	-1.85	gallons/connection/day
	Real Losses per service connection per day:	48.35	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.47	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	189.99	million gallons/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	1.72	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

AWWA Free Water Audit Software:
User Comments

WAS v5.0

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	

Audit Item	Comment
Volume from own sources:	VOS represents cumulative volume from January 1, 2019 to December 31, 2019. Change in tank storage from January 1, 2019 and December 31, 2019 included in VOS.
Vol. from own sources: Master meter error adjustment:	Meter error adjustment included based on tested data from AMWC staff.
Water imported:	Not applicable.
Water imported: master meter error adjustment:	Not applicable.
Water exported:	Not applicable.
Water exported: master meter error adjustment:	Not applicable.
Billed metered:	Meter reading period is mid-month to mid-month
Billed unmetered:	Not applicable.
Unbilled metered:	Not applicable.
Unbilled unmetered:	Not applicable.

Audit Item	Comment
Unauthorized consumption:	Default selected.
Customer metering inaccuracies:	326 meters tested representing 3.03% of the meter population. 201 of the meters tested were not working. The reamining 135 meters tested that were working were providing accurate readings.
Systematic data handling errors:	Default selected.
Length of mains:	Does not currently include length of hydrant laterals. Will be addressed for next audit cycle.
Number of active AND inactive service connections:	Results based on customer database with meter status indicated.
Average length of customer service line:	Customer service lines generally end at curb stop.
Average operating pressure:	Operating pressures based on continuous pressure recording at production and pumping facilities. With previous pressure testing completed for all hydrants within water system.
Total annual cost of operating water system:	2019/20 fiscal year plant operating expenses, including deprecitation. Excludes admin operation expenses.
Customer retail unit cost (applied to Apparent Losses):	2019 total water sales revenue divided by adjusted meter volume
Variable production cost (applied to Real Losses):	2019 variable energy and chemical costs divided by metered production

AWWA Free Water Audit Software: Water Balance

WAS v5.0

Water Audit Report for:	Atascadero Mutual Water Co (4010002)	
Reporting Year:	2019	1/2019 - 12/2019
Data Validity Score:	67	

Own Sources (Adjusted for known errors): *1,622.969*

Water Imported: *0.000*

Water Exported: *0.000*

Water Supplied: *1,622.969*

Authorized Consumption: *1,440.250*

- **Billed Authorized Consumption**: *1,436.000*
  - **Billed Metered Consumption (water exported is removed)**: *1,436.000*
  - **Billed Unmetered Consumption**: *0.000*
- **Unbilled Authorized Consumption**: *4.250*
  - **Unbilled Metered Consumption**: *0.000*
  - **Unbilled Unmetered Consumption**: *4.250*

Water Losses: *182.719*

- **Apparent Losses**: *-7.274*
  - **Unauthorized Consumption**: *4.057*
  - **Customer Metering Inaccuracies**: *-14.921*
  - **Systematic Data Handling Errors**: *3.590*
- **Real Losses**: *189.993*
  - **Leakage on Transmission and/or Distribution Mains**: *Not broken down*
  - **Leakage and Overflows at Utility's Storage Tanks**: *Not broken down*
  - **Leakage on Service Connections**: *Not broken down*

Billed Water Exported

- **Revenue Water**: 1,436.000
- **Non-Revenue Water (NRW)**: *186.969*

AWWA Free Water Audit Software:
Dashboard

WAS v5.0

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

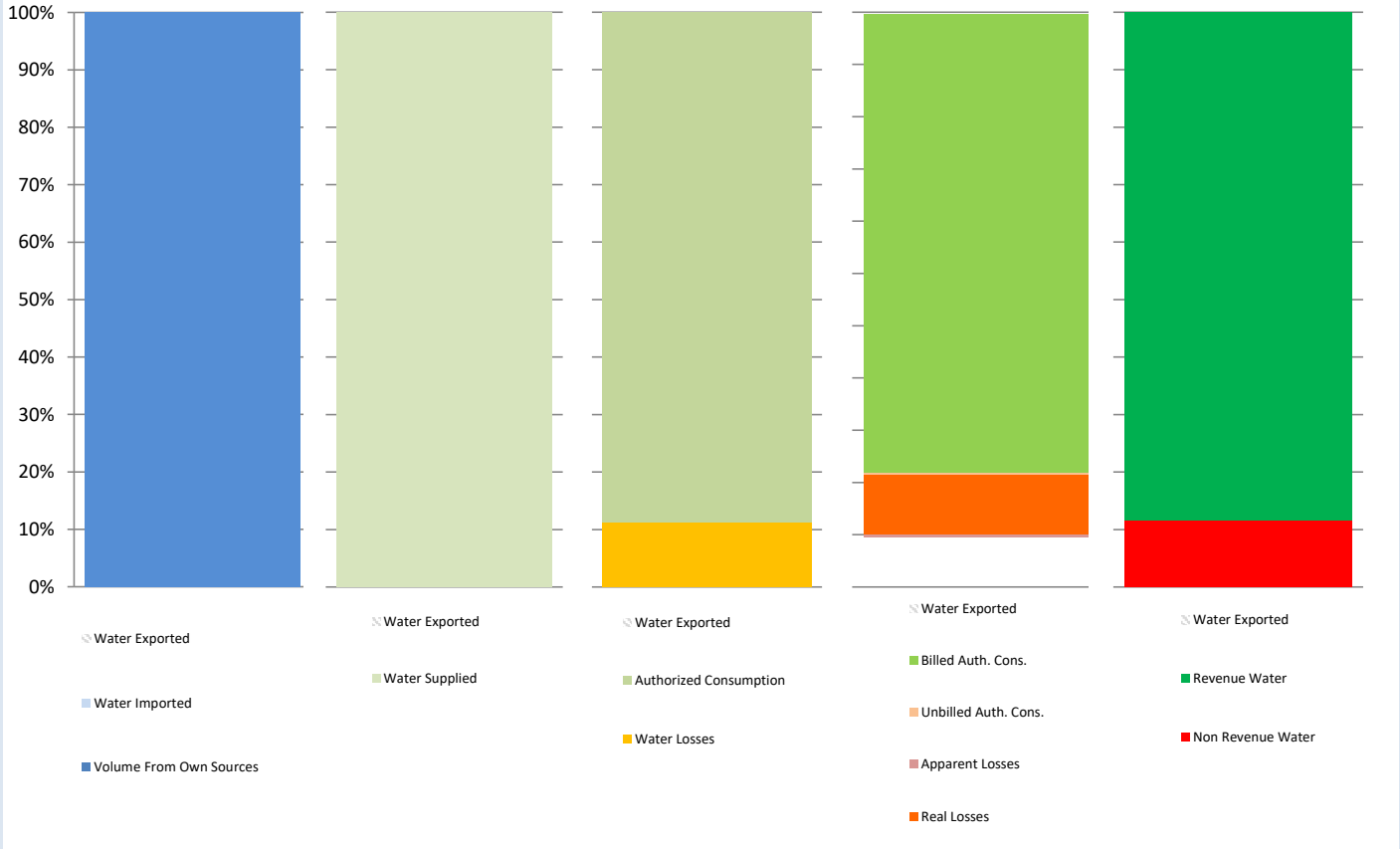
Water Audit Report for: Atascadero Mutual Water Co (4010002)

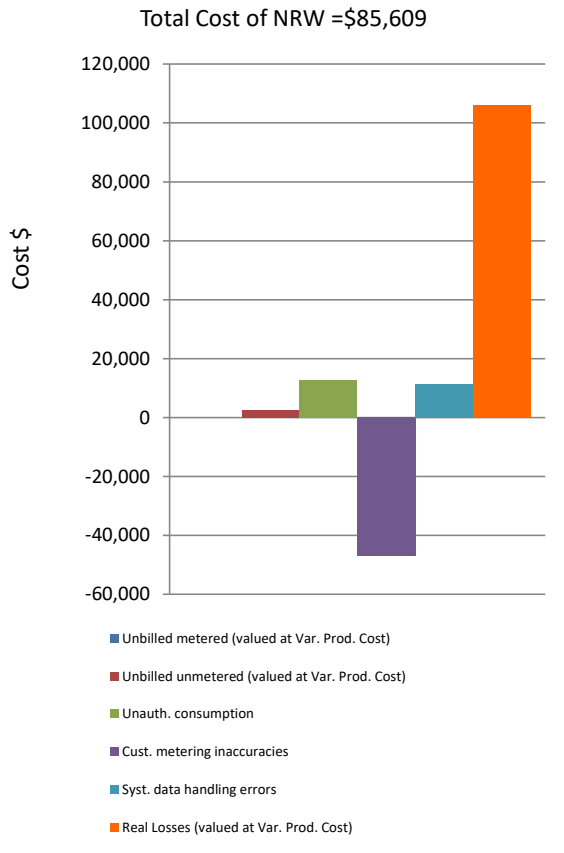
Reporting Year: 2019 | 1/2019 - 12/2019

Data Validity Score: 67

○ Show me the VOLUME of Non-Revenue Water

◉ Show me the COST of Non-Revenue Water





AWWA Free Water Audit Software v5.0

This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

Please begin by providing the following information

Name of Contact Person:	John B Neil
Email Address:	jneil@amwc.us
Telephone | Ext.:	8054662428
Name of City / Utility:	Atascadero Mutual Water Co.
City/Town/Municipality:	Atascadero
State / Province:	California (CA)
Country:	USA
Year:	2018 Calendar Year
Audit Preparation Date:	9/11/2019
Volume Reporting Units:	Million gallons (US)
PWSID / Other ID:	4010002

The following guidance will help you complete the Audit

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page

Instructions
The current sheet. Enter contact information and basic audit details (year, units etc)

Reporting Worksheet
Enter the required data on this worksheet to calculate the water balance and data grading

Comments
Enter comments to explain how values were calculated or to document data sources

Performance Indicators
Review the performance indicators to evaluate the results of the audit

Water Balance
The values entered in the Reporting Worksheet are used to populate the Water Balance

Dashboard
A graphical summary of the water balance and Non-Revenue Water components

Grading Matrix
Presents the possible grading options for each input component of the audit

Service Connection Diagram
Diagrams depicting possible customer service connection line configurations

Definitions
Use this sheet to understand the terms used in the audit process

Loss Control Planning
Use this sheet to interpret the results of the audit validity score and performance indicators

Example Audits
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

Acknowledgements
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Atascadero Mutual Water Co. (4010002)
Reporting Year: 2018 | 1/2018 - 12/2018

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

						Pcnt:	Value:	
Volume from own sources:	6	1,680.510	MG/Yr	3	0.00%			MG/Yr
Water imported:	n/a	0.000	MG/Yr					MG/Yr
Water exported:	n/a	0.000	MG/Yr					MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,680.510 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	8	1,529.360	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:	7	4.570	MG/Yr		4.570	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 1,533.930 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption)

146.580 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		4.201	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	31.211	MG/Yr	2.00%	MG/Yr
Systematic data handling errors:		3.823	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 39.236 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 107.344 MG/Yr

WATER LOSSES: 146.580 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 151.150 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	246.0	miles
Number of active AND inactive service connections:	8	10,738	
Service connection density:		44	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 | 103.0 psi

COST DATA

Total annual cost of operating water system:	10	$3,200,700	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$2.09	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	5	$496.87	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 65 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Variable production cost (applied to Real Losses)

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

Water Audit Report for: Atascadero Mutual Water Co. (4010002)
Reporting Year: 2018 | 1/2018 - 12/2018

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 65 out of 100 ***

System Attributes:

	Apparent Losses:	39.236	MG/Yr
+	Real Losses:	107.344	MG/Yr
=	Water Losses:	146.580	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	110.59	MG/Yr
	Annual cost of Apparent Losses:	$82,003	
	Annual cost of Real Losses:	$53,336	Valued at Variable Production Cost

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	9.0%	
	Non-revenue water as percent by cost of operating system:	4.3%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	10.01	gallons/connection/day
	Real Losses per service connection per day:	27.39	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.27	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	107.34	million gallons/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	0.97	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	

Audit Item	Comment
Volume from own sources:	12/16/2016 - 12/15/2017 to correspond with meter reading schedule, which is mid-month to mid-month
Vol. from own sources: Master meter error adjustment:	
Water imported:	
Water imported: master meter error adjustment:	
Water exported:	
Water exported: master meter error adjustment:	
Billed metered:	Meter reading period is from mid-month to mid-month.
Billed unmetered:	
Unbilled metered:	

Audit Item	Comment
Unbilled unmetered:	
Unauthorized consumption:	
Customer metering inaccuracies:	
Systematic data handling errors:	
Length of mains:	
Number of active AND inactive service connections:	
Average length of customer service line:	
Average operating pressure:	
Total annual cost of operating water system:	2018 calendar year plant expenses, does not include administritive expenses (water billing, conservation program, etc) and non-operating expenses (Nacimineto Water Project debt service, SGMA compliance, etc)
Customer retail unit cost (applied to Apparent Losses):	2018 total water sales revenue divided by adjusted meter volume
Variable production cost (applied to Real Losses):	2018 variable energy and chemical costs divided by metered production

AWWA Free Water Audit Software: Water Balance

WAS v5.0

Water Audit Report for:	**Atascadero Mutual Water Co. (4010002)**	
Reporting Year:	**2018**	**1/2018 - 12/2018**
Data Validity Score:	**65**	

Own Sources (Adjusted for known errors)
1,680.510

Water Imported
0.000

System Input
1,680.510

Water Exported
0.000

Water Supplied
1,680.510

Authorized Consumption
1,533.930

Billed Authorized Consumption
1,529.360

Billed Water Exported
1,529.360

Billed Metered Consumption (water exported is removed)
1,529.360

Billed Unmetered Consumption
0.000

Unbilled Authorized Consumption
4.570

Unbilled Metered Consumption
0.000

Unbilled Unmetered Consumption
4.570

Water Losses
146.580

Apparent Losses
39.236

Unauthorized Consumption
4.201

Customer Metering Inaccuracies
31.211

Systematic Data Handling Errors
3.823

Real Losses
107.344

Leakage on Transmission and/or Distribution Mains
Not broken down

Leakage and Overflows at Utility's Storage Tanks
Not broken down

Leakage on Service Connections
Not broken down

Revenue Water
0.000

Revenue Water
1,529.360

Non-Revenue Water (NRW)
151.150

AWWA Free Water Audit Software:
Dashboard

WAS v5.0

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

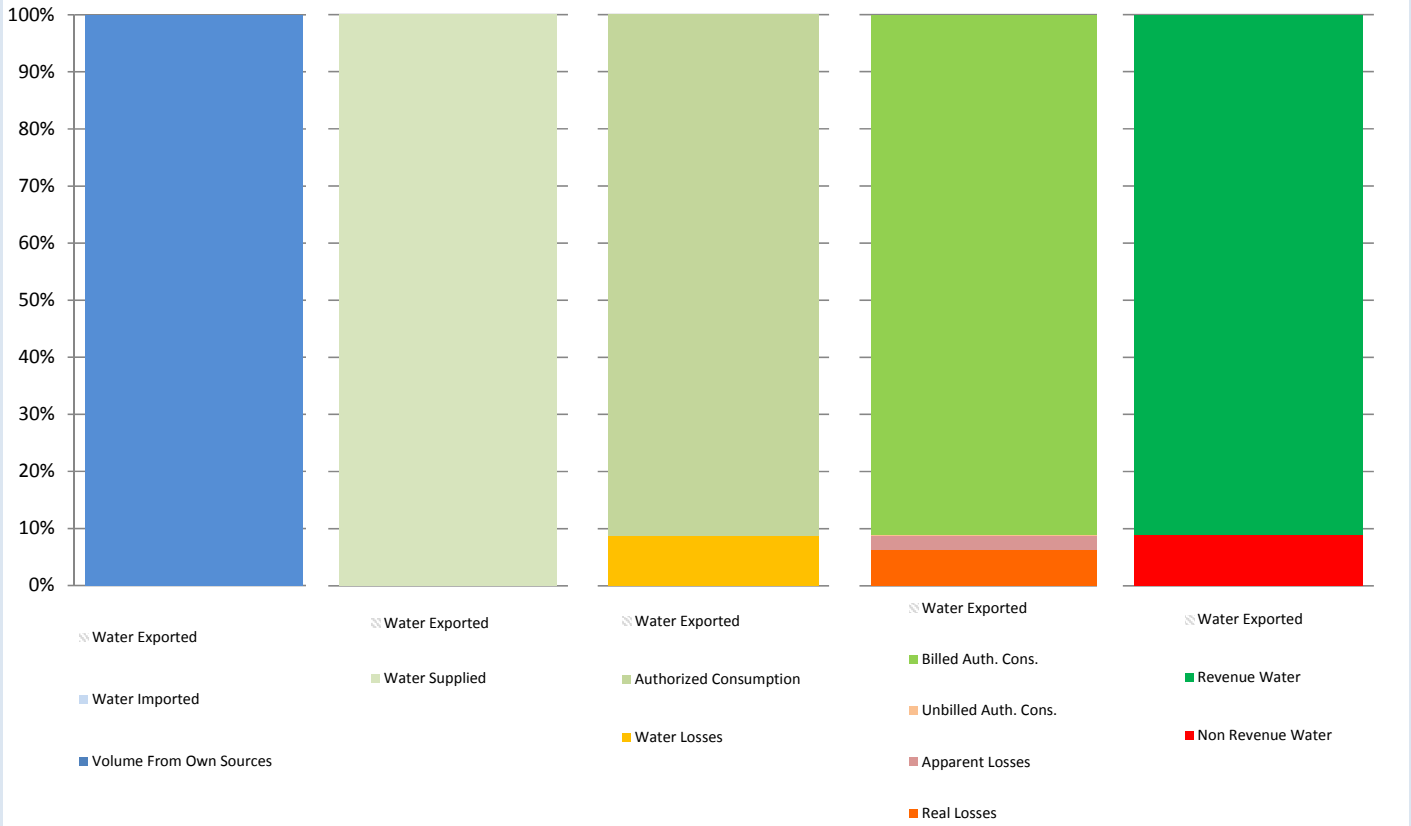
Water Audit Report for: **Atascadero Mutual Water Co. (4010002)**

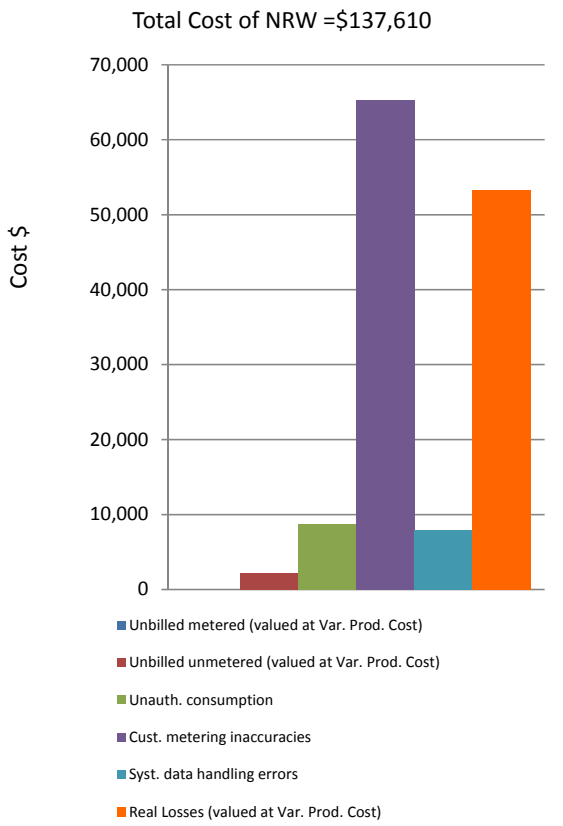
Reporting Year: **2018** **1/2018 - 12/2018**

Data Validity Score: **65**

Show me the VOLUME of Non-Revenue Water

Show me the COST of Non-Revenue Water





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The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

Please begin by providing the following information

Name of Contact Person:	John B Neil
Email Address:	jneil@amwc.us
Telephone | Ext.:	8054662428
Name of City / Utility:	Atascadero Mutual Water Co.
City/Town/Municipality:	Atascadero
State / Province:	California (CA)
Country:	USA
Year:	2017 Calendar Year
Audit Preparation Date:	9/25/2018
Volume Reporting Units:	Million gallons (US)
PWSID / Other ID:	4010002

The following guidance will help you complete the Audit

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page

Instructions
The current sheet. Enter contact information and basic audit details (year, units etc)

Reporting Worksheet
Enter the required data on this worksheet to calculate the water balance and data grading

Comments
Enter comments to explain how values were calculated or to document data sources

Performance Indicators
Review the performance indicators to evaluate the results of the audit

Water Balance
The values entered in the Reporting Worksheet are used to populate the Water Balance

Dashboard
A graphical summary of the water balance and Non-Revenue Water components

Grading Matrix
Presents the possible grading options for each input component of the audit

Service Connection Diagram
Diagrams depicting possible customer service connection line configurations

Definitions
Use this sheet to understand the terms used in the audit process

Loss Control Planning
Use this sheet to interpret the results of the audit validity score and performance indicators

Example Audits
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

Acknowledgements
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Atascadero Mutual Water Co. (4010002)
Reporting Year: 2017 1/2017 - 12/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

						Pcnt:	Value:	
Volume from own sources:	6	1,650.000	MG/Yr	3	0.00%			MG/Yr
Water imported:	n/a	0.000	MG/Yr					MG/Yr
Water exported:	n/a	0.000	MG/Yr					MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 1,650.000 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	8	1,484.000	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:	7	6.860	MG/Yr		6.860	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 1,490.860 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 159.140 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		4.125	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	30.286	MG/Yr	2.00%	MG/Yr
Systematic data handling errors:		3.710	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 38.121 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 121.019 MG/Yr

WATER LOSSES: 159.140 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 166.000 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	246.0	miles
Number of active AND inactive service connections:	8	10,736	
Service connection density:		44	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	103.0	psi

COST DATA

Total annual cost of operating water system:	10	$3,329,856	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$2.24	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	5	$512.72	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 65 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Variable production cost (applied to Real Losses)

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

Water Audit Report for: Atascadero Mutual Water Co. (4010002)
Reporting Year: 2017 | 1/2017 - 12/2017

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 65 out of 100 ***

System Attributes:

	Apparent Losses:	38.121	MG/Yr
+	Real Losses:	121.019	MG/Yr
=	Water Losses:	159.140	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	110.58	MG/Yr
	Annual cost of Apparent Losses:	$85,390	
	Annual cost of Real Losses:	$62,049	Valued at Variable Production Cost

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	10.1%	
	Non-revenue water as percent by cost of operating system:	4.5%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	9.73	gallons/connection/day
	Real Losses per service connection per day:	30.88	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.30	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	121.02	million gallons/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	1.09	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	

Audit Item	Comment
Volume from own sources:	12/16/2016 - 12/15/2017 to correspond with meter reading schedule, which is mid-month to mid-month
Vol. from own sources: Master meter error adjustment:	
Water imported:	
Water imported: master meter error adjustment:	
Water exported:	
Water exported: master meter error adjustment:	
Billed metered:	Meter reading period is from mid-month to mid-month.
Billed unmetered:	
Unbilled metered:	

Audit Item	Comment
Unbilled unmetered:	
Unauthorized consumption:	
Customer metering inaccuracies:	
Systematic data handling errors:	
Length of mains:	
Number of active AND inactive service connections:	
Average length of customer service line:	
Average operating pressure:	
Total annual cost of operating water system:	2017 calendar year plant expenses, does not include administritive expenses (water billing, conservation program, etc) and non-operating expenses (Nacimineto Water Project debt service, SGMA compliance, etc)
Customer retail unit cost (applied to Apparent Losses):	2017 total water sales revenue divided by authorized consumption (i.e. metered water)
Variable production cost (applied to Real Losses):	2017 variable energy and chemical costs

AWWA Free Water Audit Software: Water Balance

WAS v5.0

Water Audit Report for:	**Atascadero Mutual Water Co. (4010002)**	
Reporting Year:	**2017**	**1/2017 - 12/2017**
Data Validity Score:	**65**	

Own Sources (Adjusted for known errors)
1,650.000

Water Imported
0.000

System Input
1,650.000

Water Exported
0.000

Water Supplied
1,650.000

Authorized Consumption
1,490.860

Billed Water Exported

Billed Authorized Consumption
1,484.000

Billed Metered Consumption (water exported is removed)
1,484.000

Billed Unmetered Consumption
0.000

Unbilled Authorized Consumption
6.860

Unbilled Metered Consumption
0.000

Unbilled Unmetered Consumption
6.860

Water Losses
159.140

Apparent Losses
38.121

Unauthorized Consumption
4.125

Customer Metering Inaccuracies
30.286

Systematic Data Handling Errors
3.710

Real Losses
121.019

Leakage on Transmission and/or Distribution Mains
Not broken down

Leakage and Overflows at Utility's Storage Tanks
Not broken down

Leakage on Service Connections
Not broken down

Revenue Water
0.000

Revenue Water
1,484.000

Non-Revenue Water (NRW)
166.000

AWWA Free Water Audit Software:
Dashboard

WAS v5.0

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

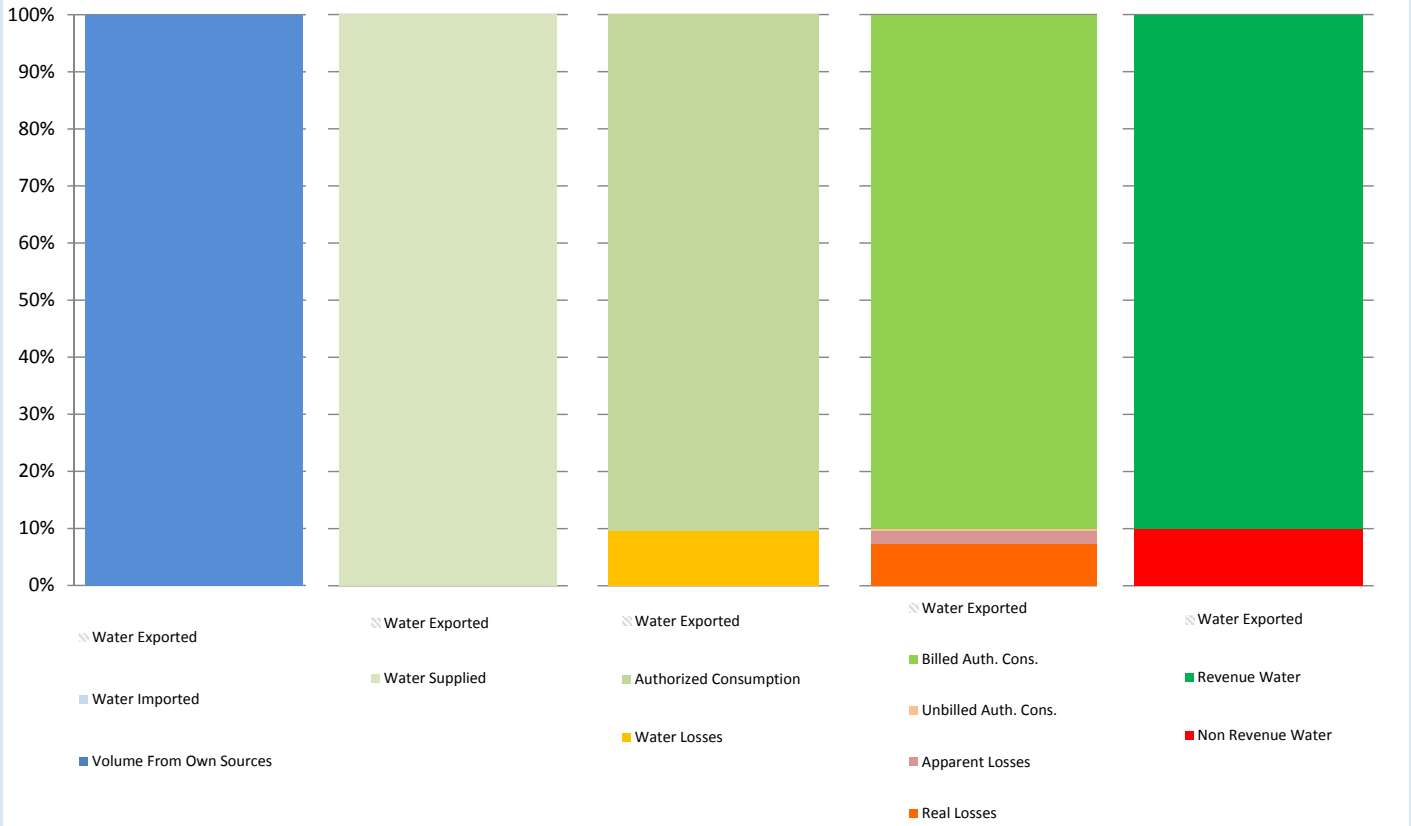
Water Audit Report for: **Atascadero Mutual Water Co. (4010002)**

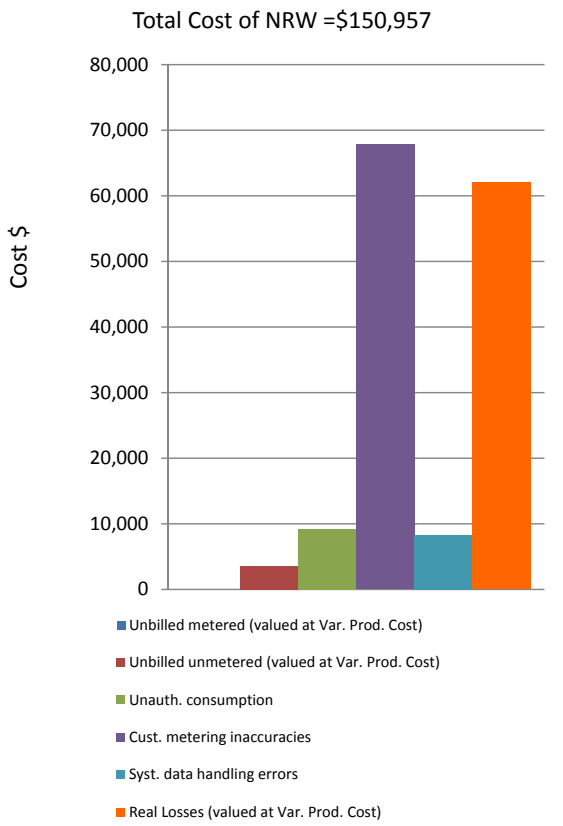
Reporting Year: **2017** **1/2017 - 12/2017**

Data Validity Score: **65**

Show me the VOLUME of Non-Revenue Water

Show me the COST of Non-Revenue Water





AWWA Free Water Audit Software v5.0

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Email Address:	jneil@amwc.us
Telephone | Ext.:	8054662428
Name of City / Utility:	Atascadero Mutual Water Co.
City/Town/Municipality:	Atascadero
State / Province:	California (CA)
Country:	USA
Year:	2016 Calendar Year
Audit Preparation Date:	4/5/2017
Volume Reporting Units:	Million gallons (US)
PWSID / Other ID:	4010002

The following guidance will help you complete the Audit

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
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- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

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? Click to access definition
\+ Click to add a comment

Water Audit Report for: Atascadero Mutual Water Co. (4010002)
Reporting Year: 2016 | 1/2016 - 12/2016

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<----------- Enter grading in column 'E' and 'J' ---------->

WATER SUPPLIED

	Grade	Value	Unit	Master Meter and Supply Error Adjustments: Grade	Pcnt	Value	Unit
Volume from own sources:	3	1,506.053	MG/Yr	3	0.00%		MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: **1,506.053** MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

	Grade	Value	Unit
Billed metered:	5	1,366.259	MG/Yr
Billed unmetered:	n/a	0.000	MG/Yr
Unbilled metered:	n/a	0.000	MG/Yr
Unbilled unmetered:	7	6.860	MG/Yr

Unbilled unmetered — Pcnt: ; Value: 6.860 MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: **1,373.119** MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption)

132.934 MG/Yr

Apparent Losses

	Grade	Value	Unit	Pcnt	Value	Unit
Unauthorized consumption:		3.765	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

	Grade	Value	Unit	Pcnt	Value	Unit
Customer metering inaccuracies:	3	27.883	MG/Yr	2.00%		MG/Yr
Systematic data handling errors:		3.416	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **35.064** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **97.870** MG/Yr

WATER LOSSES: **132.934** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **139.794** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

	Grade	Value	Unit
Length of mains:	8	246.0	miles
Number of active AND inactive service connections:	8	10,626	
Service connection density:		43	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

	Grade	Value	Unit
Average operating pressure:	5	103.0	psi

COST DATA

	Grade	Value	Unit
Total annual cost of operating water system:	10	$4,760,160	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$3.43	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	5	$608.00	$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 50 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Billed metered

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

Water Audit Report for: Atascadero Mutual Water Co. (4010002)
Reporting Year: 2016 | 1/2016 - 12/2016

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 50 out of 100 ***

System Attributes:

	Apparent Losses:	35.064	MG/Yr
+	Real Losses:	97.870	MG/Yr
=	**Water Losses:**	**132.934**	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	109.96	MG/Yr
	Annual cost of Apparent Losses:	$120,268	
	Annual cost of Real Losses:	$59,505	Valued at **Variable Production Cost**

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	9.3%	
	Non-revenue water as percent by cost of operating system:	3.9%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	9.04	gallons/connection/day
	Real Losses per service connection per day:	25.23	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.24	gallons/connection/day/psi

	From Above, Real Losses = Current Annual Real Losses (CARL):	97.87	million gallons/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	0.89	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	

Audit Item	Comment
Volume from own sources:	
Vol. from own sources: Master meter error adjustment:	
Water imported:	
Water imported: master meter error adjustment:	
Water exported:	
Water exported: master meter error adjustment:	
Billed metered:	
Billed unmetered:	
Unbilled metered:	

Audit Item	Comment
Unbilled unmetered:	
Unauthorized consumption:	
Customer metering inaccuracies:	
Systematic data handling errors:	
Length of mains:	
Number of active AND inactive service connections:	
Average length of customer service line:	
Average operating pressure:	
Total annual cost of operating water system:	
Customer retail unit cost (applied to Apparent Losses):	
Variable production cost (applied to Real Losses):	

AWWA Free Water Audit Software: Water Balance

WAS v5.0

Water Audit Report for:	Atascadero Mutual Water Co. (4010002)	
Reporting Year:	2016	1/2016 - 12/2016
Data Validity Score:	50	

		Water Exported 0.000	Billed Water Exported			Revenue Water 0.000
Own Sources (Adjusted for known errors) 1,506.053	System Input 1,506.053	Water Supplied 1,506.053	Authorized Consumption 1,373.119	Billed Authorized Consumption 1,366.259	Billed Metered Consumption (water exported is removed) 1,366.259	Revenue Water 1,366.259
					Billed Unmetered Consumption 0.000	
				Unbilled Authorized Consumption 6.860	Unbilled Metered Consumption 0.000	Non-Revenue Water (NRW) 139.794
					Unbilled Unmetered Consumption 6.860	
			Water Losses 132.934	Apparent Losses 35.064	Unauthorized Consumption 3.765	
					Customer Metering Inaccuracies 27.883	
					Systematic Data Handling Errors 3.416	
Water Imported 0.000				Real Losses 97.870	Leakage on Transmission and/or Distribution Mains Not broken down	
					Leakage and Overflows at Utility's Storage Tanks Not broken down	
					Leakage on Service Connections Not broken down	

AWWA Free Water Audit Software:
Dashboard

WAS v5.0

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

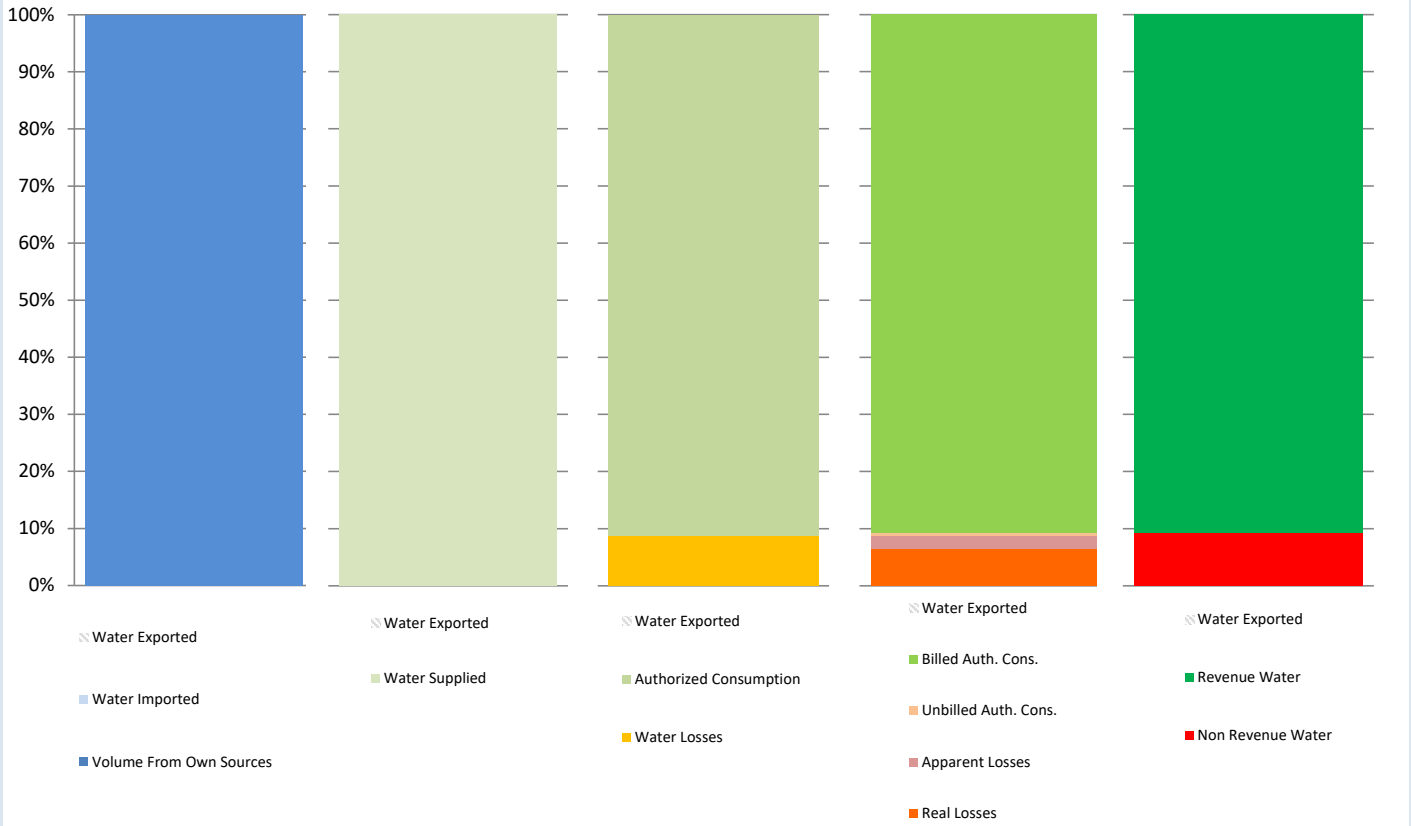
Water Audit Report for: Atascadero Mutual Water Co. (4010002)

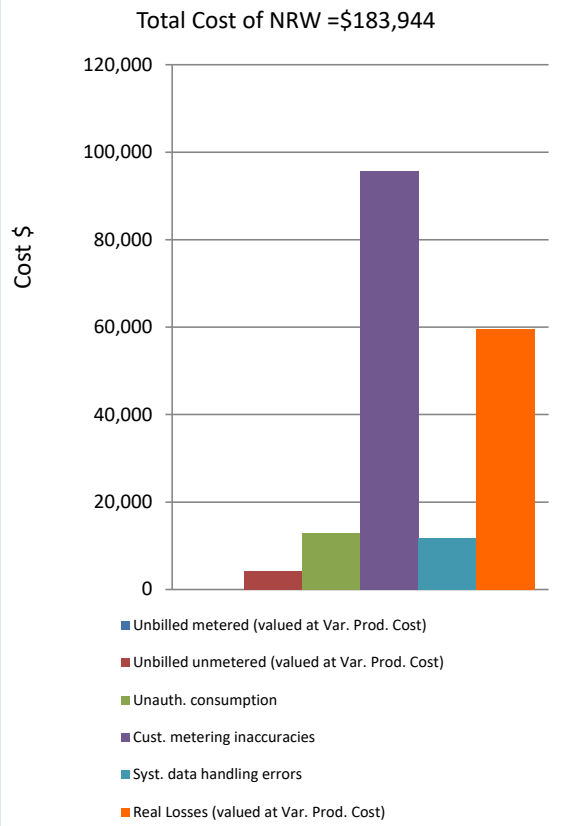
Reporting Year: 2016 | 1/2016 - 12/2016

Data Validity Score: 50

○ Show me the VOLUME of Non-Revenue Water

◉ Show me the COST of Non-Revenue Water





Appendix C. SBX7-7 VERIFICATION FORM

SUBMITTED FOR THE 2015 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	2,139	Million Gallons
	2008 total volume of delivered recycled water	0	Million Gallons
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1]	10	Years
	Year beginning baseline period range	1996	
	Year ending baseline period range[2]	2005	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[3]	2008	
[1] 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.			
[2] The ending year must be between December 31, 2004 and December 31, 2010.			
[3] 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	1996	26,481
Year 2	1997	26,780
Year 3	1998	27,111
Year 4	1999	27,353
Year 5	2000	28,220
Year 6	2001	28,275
Year 7	2002	28,671
Year 8	2003	29,025
Year 9	2004	29,464
Year 10	2005	29,933
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2004	29,464
Year 2	2005	29,933
Year 3	2006	30,860
Year 4	2007	31,114
Year 5	2008	30,611
2015 Compliance Year Population		
2015		29,870

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	Groundwater
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1996	1,880		1,880
Year 2	1997	2,095		2,095
Year 3	1998	1,782		1,782
Year 4	1999	2,010		2,010
Year 5	2000	2,082		2,082
Year 6	2001	2,081		2,081
Year 7	2002	2,148		2,148
Year 8	2003	2,090		2,090
Year 9	2004	2,125		2,125
Year 10	2005	1,980		1,980
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2004	2,125		2,125
Year 2	2005	1,980		1,980
Year 3	2006	2,027		2,027
Year 4	2007	2,208		2,208
Year 5	2008	2,139		2,139
2015 Compliance Year - Water into Distribution System				
2015		1439		1,439

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1996	26,481	1,880	195
Year 2	1997	26,780	2,095	214
Year 3	1998	27,111	1,782	180
Year 4	1999	27,353	2,010	201
Year 5	2000	28,220	2,082	202
Year 6	2001	28,275	2,081	202
Year 7	2002	28,671	2,148	205
Year 8	2003	29,025	2,090	197
Year 9	2004	29,464	2,125	198
Year 10	2005	29,933	1,980	181
Year 11	0	0	0	
Year 12	0	0	0	
Year 13	0	0	0	
Year 14	0	0	0	
Year 15	0	0	0	
10-15 Year Average Baseline GPCD				**198**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2004	29,464	2,125	198
Year 2	2005	29,933	1,980	181
Year 3	2006	30,860	2,027	180
Year 4	2007	31,114	2,208	194
Year 5	2008	30,611	2,139	191
5 Year Average Baseline GPCD				**189**
2015 Compliance Year GPCD				
2015		29,870	1,439	132

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	198
5 Year Baseline GPCD	189
2015 Compliance Year GPCD	132

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

Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator

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

10-15 Year Baseline GPCD	2020 Target GPCD
198	158

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

5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *Fm Appropriate Target Table*	Confirmed 2020 Target
189	179	158	158

** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
158	198	178

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)*				Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments			
132	178	*0*	*0*	*0*	0	132	132	YES

Appendix D. SBX7-7 2020 COMPLIANCE FORM

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Million Gallons
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES:

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☑	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	31,749
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use							
Compliance Year 2020	2020 Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use*	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
	1,727	-		-		-	**1,727**

* **Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water *Fm SB X7-7 Table 4*	2020 Population *Fm SB X7-7 Table 3*	2020 GPCD
1,727	31,749	**149**

NOTES:

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Atascadero Basin
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	1,128	-	1,128

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Groundwater pumped from the Atascadero Basin includes imported water from the NWP that is used to recharge the basin.

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s) Meter Error Adjustment

Complete one table for each source.

Name of Source	Salinas River Underflow
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	599		599

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Groundwater under the influence of surface water

SB X7-7 Table 9: 2020 Compliance							
Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD Enter "0" if Adjustment Not Used Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]	TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
149	-	-	-	-	149	158	**YES**

[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

Appendix E. DELIVERY ENTITLEMENT CONTRACT

NACIMIENTO PROJECT WATER

DELIVERY ENTITLEMENT CONTRACT

ATASCADERO MUTUAL WATER COMPANY

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NACIMIENTO PROJECT WATER
DELIVERY ENTITLEMENT CONTRACT

August 17th
This Water Delivery Entitlement Contract (the "Contract"), made this July 7th day of , 2004, by and between the San Luis Obispo County Flood Control and Water Conservation District, a Flood Control and Water Conservation District duly established and existing under the San Luis Obispo County Flood Control and Water Conservation District Act, Act 7205 of the Uncodified Acts of the California Water Code (the "District"), and Atascadero Mutual Water Company, a California mutual water company (the "Participant"), as follows:

WITNESSETH:

WHEREAS, the lands and inhabitants within the jurisdiction of the Participant are in need of water; and

WHEREAS, the District has certain rights to water stored in the Nacimiento Reservoir located in the northwest corner of the County of San Luis Obispo (the "County") and the District is willing to provide a portion of said water to the Participant and to other public water distribution agencies within the District; and

WHEREAS, the Participant desires to contract with the District for the supply of additional water for the use and benefit of the lands and inhabitants served by the Participant; and

WHEREAS, the Participant and the District desire to join with other public water distribution entities within the District to have the District finance, construct and operate a water system which will convey the District's waters from the Nacimiento Reservoir to the Participant and to the other public water distribution entities all on the terms and conditions hereinafter set forth;

NOW, THEREFORE, IT IS HEREBY MUTUALLY AGREED by and between the Participant and the District as follows:

ARTICLE 1:
DEFINITIONS

(A) Unless the context otherwise requires, the terms defined in this Article shall, for all purposes of this Water Delivery Entitlement Contract, have the meanings set forth in the Recitals hereof or hereunder specified, to be equally applicable to both the singular and plural forms of any of the terms herein defined. Defined terms used herein without capitalization shall have the same meanings as the corresponding capitalized defined terms but do not refer to the specific Participant hereunder.

"Additional Capital Project" shall mean one or more capital projects related to the Nacimiento Facilities, or other improvements or repairs to the Nacimiento Facilities, undertaken

from time to time by the District in addition to the Nacimiento Project, which is an Approved Additional Project, an Emergency Project or a Required Additional Project.

"Additional Capital Project Costs" shall mean costs expended or incurred by the District for Additional Capital Projects and not attributable to, financed by or included in Capital Projects Installment Debt Service.

"Additional Debt" shall mean, as to the Participant and its Water Enterprise, and as to the Water Enterprises, individually, of the respective Other Participants, such debt or similar obligations to be payable from the revenues of such Water Enterprise, as may be permitted under the terms of the Legal Documents.

"Approved Additional Project" shall mean a capital improvement to the Nacimiento Facilities that has been agreed to by the Participant and/or certain Other Participants, and that will be paid by that group within All Participants which has requested or agreed to such capital improvement.

"All Participants" shall mean those public or private entities then participating in the Nacimiento Pipeline by the purchase of Project Water under this Contract or a Like-Contract.

"Board of Supervisors" shall mean the Board of Supervisors of San Luis Obispo County acting as the governing board of the County Flood Control and Water Conservation District.

"Calendar Quarter" shall mean each three (3)-month period commencing on January 1, April 1, July 1, and October 1 of each year.

"Calendar Year" shall mean each twelve (12)-month period commencing January 1 and ending December 31, both dates inclusive.

"Capital Projects" shall mean and include the following terms, each of which is separately defined herein: Additional Capital Projects; Approved Additional Projects; Required Additional Projects; Emergency Projects and the Nacimiento Project.

"Capital Projects Installment Debt Service" shall mean payments on debt or similar obligations incurred by the District for the Nacimiento Facilities consisting of, in the aggregate, (a) principal and interest (or mandatory sinking fund payments, installments or lease or similar payments due) with respect to all Municipal Obligations at the time outstanding in accordance with their terms, *provided* that capitalized interest funded from the proceeds of Municipal Obligations need not be taken into account, (b) annual costs of administering the Municipal Obligations, including the annual fees of any trustee or paying agent therefor, and (c) the costs, if any, of annual credit enhancement for the Municipal Obligations, whether or not based on a derivative structure as provided in Section 5922(a) of the Government Code. In the event, and to the extent that, any Additional Capital Project is financed by means of the issuance of a series of additional Municipal Obligations, then the payments and costs associated with the additional Municipal Obligations shall become a part of the Capital Projects Installment Debt Service.

"Capital Reserve Costs" shall mean the District's annual costs of maintaining Capital Reserves, determined by the District and budgeted annually by the District as provided for in

Article 4(C) hereof, to be apportioned among All Participants as provided for in Article 16(C)(1) hereof.

"Capital Reserves" shall mean those reserves established and maintained by the District for (i) Scheduled Maintenance or (ii) for anticipated costs of a Required Additional Project imposed, or likely to be imposed, by a Governmental Authority (an "External Requirement") in order for the District to continue to operate the Nacimiento Facilities, *provided* however, that the District shall not expend any portion of the Capital Reserves for any External Requirement until and unless such External Requirement becomes a final order of such Governmental Authority, not subject to further appeal. Such Capital Reserves may be established either, (i) on a year-to-year basis by the District in its annual budgets, copies of which shall be supplied to the Participant promptly following adoption, or (ii) on a multi-year basis by the District through the development and promulgation to the Participant of a long-term capital improvement plan of the District; *provided*, however, that no Approved Additional Projects shall be funded from the Capital Reserves.

"Commission" or "Nacimiento Project Commission" shall mean the commission formed of a representative of the Participant, each Other Participant and the Board of Supervisors, to operate as provided under Article 33 hereof.

"Construction Bids" shall mean the bids for construction of the Nacimiento Project, as further described in Article 2(B).

"Construction Phase" shall mean the period of time following the opening of the final Construction Bid, during which the District shall apply the proceeds of the Municipal Obligations to pay the Nacimiento Project Costs.

"Consultants" shall mean contractors, environmental specialists, engineers, financial advisors, underwriters, attorneys, accountants and similar consultants under contract with the District to perform services related to the Nacimiento Project or the Nacimiento Facilities.

"Contract Payments" shall mean those payments due from the Participant to the District, representing the Participant's pro rata share of Nacimiento Project Costs.

"Costs" shall include the following terms, each of which is separately defined herein: Additional Capital Project Costs; Contract Costs; Nacimiento Project Construction Costs; Master Water Contract Costs; Nacimiento Project Costs; Reserve Water Costs; and Variable Energy Costs.

"County Treasury Pool" shall mean the Treasury Pool of the County of San Luis Obispo, California.

"Coverage Account" shall mean an account established for the Participant either with the District or with a Depository, as provided in Article 24 hereof.

"Coverage Factor" shall mean one hundred twenty-five percent (125%) of Participant's pro rata share of Capital Projects Installment Debt Service, determined in accordance with Article 20(C) hereof, calculated for each Fiscal Year.

"CPA" shall mean a certified public accountant or firm of certified public accountants.

"Debt Service Shortfall" shall mean the aggregate amount of Delinquent Debt Service Payments due from Defaulting Participants on the Due Date in question.

"Delinquent Debt Service Payment" shall mean those payments of Capital Projects Installment Debt Service due under this Contract or any Like-Contract that are not, in fact, paid on its Due Date.

"Delinquent Participant" shall mean any of the Participant or any Other Participant which fails to meet its obligation for payment for Nacimiento Project Water hereunder or under any Like-Contract, as further described in Article 25(A) hereof.

"Delivery Entitlement" shall mean the quantity of Nacimiento Project Water which the Participant is entitled to have delivered by the District to the Participant under this Contract in any given Water Year, as set forth in Article 6(A) herein.

"Delivery Entitlement Share" shall mean the proportion of the Delivery Entitlement as compared to the Total Delivery Entitlement Obligation in any given Water Year.

"Depository" shall mean a financial institution designated for the deposit and administration of the Participant's Coverage Account, as and when appointed in accordance with Article 24 hereof.

"Design Phase" shall mean the period of time during which the proceeds of the Notes are being expended to finance the costs of design, engineering and planning for the construction of the Nacimiento Project. The Design Phase shall conclude with the opening of the final construction bid for the Nacimiento Project.

"Due Date" shall mean the date upon which each payment of Capital Projects Installment Debt Service is required to be made by the Participant or any Other Participant hereunder or under a Like-Contract.

"Effective Date" shall mean the date upon which all Initial Participants have executed and delivered this Contract and the Like-Contracts to the District, and the District has executed each of this Contract and such Like-Contracts.

"Emergency Projects" shall mean those Additional Capital Projects undertaken by the District without notice to or consultation with the Participant, any Other Participant, or the Commission, whenever the District determines that there is a substantial risk of harm to the Nacimiento Facilities or to the operation of the Nacimiento Facilities which requires immediate remedy.

"Fiscal Year" shall mean the twelve (12)-month period from July 1 of a Calendar Year to June 30 of the immediately following Calendar Year, both dates inclusive or such other dates constituting the designated fiscal year of the Participant as shall be determined by the governing board of the Participant.

"Governing Board" shall mean the legislative body which at the time in question governs the Participant and is responsible for the administration and operation of its Water Enterprise.

"Governmental Authority" shall mean any State of California, federal or local government authority having jurisdiction or authority over the District or the Nacimiento Facilities, or any portion thereof, empowered to regulate or control any aspect of its or their operations.

"Initial Participant" shall mean the Participant and the following Other Participants, each of which has executed a Like-Contract as of the Effective Date: City of San Luis Obispo, the Templeton Community Services District and City of Paso Robles.

"Legal Documents" shall mean any legal documents entered into by or on behalf of the District with respect to the Municipal Obligations.

"Long-Term Project Debt" shall mean those Municipal Obligations, whether Tax-Exempt or Taxable as to their interest component, whose proceeds are to be expended for the costs of the Construction Phase of the Nacimiento Project.

"Master Water Contract" shall mean that certain Agreement, entered into by and between the District and the Monterey Water Agency (the "Monterey Water Agency"), successor to the Monterey County Flood Control and Water Conservation District, on October 19, 1959.

"Master Water Contract Costs" shall mean those amounts that the District is obligated to pay under the Master Water Contract and which are attributable to the 15,750 acre-feet per year of Nacimiento Project Water.

"Municipal Obligations" shall mean all the Taxable Obligations and the Tax-Exempt Obligations, in the form of bonds, notes, certificates or similar securities, sold by or on behalf of the District to finance all or a portion of the Nacimiento Facilities or an Additional Capital Project, and specifically includes the Notes and Long-Term Project Debt.

"Nacimiento Facilities" shall mean all those facilities comprising the water delivery and treatment facilities bringing water from the Nacimiento Reservoir to the Participants, to be purchased hereunder, including without limitation, the Nacimiento Project, any Additional Capital Project, the land underlying the same and any easements or similar rights associated therewith or appurtenant thereto, as they may exist from time to time.

"Nacimiento Project" shall mean the project described in the Nacimiento Water Project Environmental Impact Report SCH # 2001061022 certified January 2004.

"Nacimiento Project Construction Costs" shall mean the costs of constructing any portion of the Nacimiento Project, including design, engineering, planning, environmental mitigation, equipping new facilities and/or construction efforts, accounting services, project administration and management, installation, grading, razing and building the Nacimiento Project, and includes the elements defined in Article 16(C)(3).

"Nacimiento Project Costs" shall mean the sum of (i) the Nacimiento Project Construction Costs; and (ii) all other costs of operating and maintaining the Nacimiento Facilities and of all Additional Capital Projects.

"Nacimiento Project Water" shall mean, in each Water Year, the Total Delivery Entitlement Obligation plus the Reserve Water, but not more than Fifteen Thousand Seven-Hundred (15,750) Acre-Feet of Nacimiento Reservoir Water. Nacimiento Project Water is the source of the Delivery Entitlement, Surplus Water and Reserve Water.

"Nacimiento Reservoir Water" shall mean the Seventeen Thousand Five Hundred (17,500) Acre-Feet of water which the District has the right to take from the Nacimiento Reservoir pursuant to the Master Water Contract in each Water Year.

"Nacimiento Water Fund" shall mean the separate fund established and maintained by the District within the County Treasury Pool, into which the District shall deposit all Net Revenues and all payments received by the District under this Contract and each Like-Contract.

"Net Revenues" shall mean the sum of (a) the proceeds of sale by the District of Surplus Water, (b) revenues received by the District from Wheeling Customers, and (c) revenues received by the District from the sale of Reserve Water, less the costs of making such sales and collecting said revenues.

"New Participant" shall mean and include each Other Participant which executes a Like-Contract after the Effective Date, in accordance with Article 29(C) hereof.

"Non-Delinquent Participant" shall mean any of the Participant or any Other Participant which at the time is then complying with its obligations to pay for Nacimiento Project Water hereunder or under its Like-Contract, as set forth in Article 25(A) hereof.

"Notes" shall mean those short-term notes to be issued by the District after the Effective Date, whether Tax-Exempt or Taxable as to their interest component, whose proceeds are to be expended for the costs of design, engineering and planning for the construction of the Nacimiento Project.

"Operation and Maintenance Costs" shall mean the reasonable and necessary current expenses of maintaining, repairing and operating the Nacimiento Facilities, including District administrative expenses directly attributable to the Nacimiento Facilities, but excluding the Capital Reserve Costs and the Capital Projects Installment Debt Service, all computed in accordance with generally accepted accounting principles applicable to enterprise funds of government agencies.

"Opt-out Date" shall mean the date following the Effective Date upon which the Participant may elect to opt out of the Construction Phase of the Nacimiento Project and cease to accrue obligations under this Contract, as further described in Article 2(B).

"Other Delivery Entitlement" shall mean the quantity of Nacimiento Project Water which any Other Participant is entitled to have delivered by the District under its Water Delivery Entitlement Contract in any given Water Year.

"Other Delivery Entitlement Share" shall mean the proportion of the Other Delivery Entitlement of each Other Participant as compared to the Total Delivery Entitlement Obligation in any given Water Year.

"Other Participant" shall mean any other water-distributing public agency of the State of California, city, mutual water company or other entity established under the laws of the State of California, which, having the legal power to do so, executes a Water Delivery Entitlement Contract substantially identical to this Contract for the delivery of water from the Nacimiento Facilities (a "Like-Contract"), except for Participant information, dates, Unit Participations, Participant's Unit Percentage Share and Delivery Entitlement Share, other than for the purpose of purchasing Surplus Water.

"Parity Debt" shall mean, as to the Participant and its Water Enterprise, and as to the Water Enterprises, individually, of the respective Other Participants, all Additional Debt that, by its terms, is payable on a parity with the obligations of the Participant under this Contract.

"Participant Revenue Fund" shall mean that special segregated fund established with or by the District for the deposit of amounts collected from the Participant hereunder as its portion of Capital Projects Installment Debt Service.

"Participations" include the following types of participation in the purchase of Project Water, each of which is separately defined herein: All Participants; Delinquent Participant; Initial Participants; New Participants; Non-Delinquent Participants; Other Participants and Participant.

"Participant's Capital Share" shall mean the portion of the Total Nacimiento Project Construction Costs to be borne by the Participant, and as set forth in Article 16(C)(3).

"Prior Commitment Water" shall mean 1,750 acre-feet of Project Water available to the District each Water Year from the Nacimiento Reservoir under the terms of the Master Water Contract that has been committed to persons and entities other than the Participant and the Other Participants.

"Required Additional Project" shall mean any capital improvement to the Nacimiento Facilities that the District has determined to be necessary in order to keep the Nacimiento Facilities in good repair and operating condition and to maintain the water supply at the quality required hereunder, or which has been ordered or directed by a Governmental Authority.

"Reserved Capacity" shall mean that part of the capacity of the Nacimiento Facilities which is not needed by the District for the delivery of the Total Delivery Entitlement Obligation.

"Reserve Pool Water" shall mean the portion of Reserve Water remaining, if any, after the District applies and delivers the Reserve Water in accordance with the priorities set forth in Article 29(A) hereof.

"Reserve Water" shall mean that part of the Nacimiento Reservoir Water remaining after the subtraction of the Prior Commitment Water and the Total Delivery Entitlement Obligation.

"Reserve Water Customer" shall mean any person or entity that is a party to a contract with the District pursuant to which that person or entity is obligated to purchase Reserve Water from the District.

"Scheduled Maintenance" shall mean the maintenance tasks for the Nacimiento Facilities which are required to be accomplished less frequently than annually, a portion of the costs of which shall be set aside in each annual budget of the District in anticipation of such requirement.

"Surplus Water" shall mean, beginning with the first Water Year during which Nacimiento Project Water is delivered to the Participant, and in each Water Year thereafter, the sum of (i) the Reserve Water for such Water Year, if any, plus (ii) the Turn-Back Pool Water for such Water Year, if any.

"Taxable Obligations" shall mean those certain obligations of the District under an indenture of trust or evidenced by an installment purchase agreement or similar instrument whose proceeds are used in whole or in part to pay the costs of the Nacimiento Project, any Approved Additional Project or any Required Additional Project, the interest on which is included in gross income pursuant to federal income tax law.

"Tax-Exempt Obligations" shall mean those certain obligations of the District under an indenture of trust or evidenced by an installment purchase agreement or similar instrument whose proceeds are used in whole or in part to pay the costs of the Nacimiento Project, any Approved Additional Project, or any Required Additional Contract, the interest on which is excluded from gross income for federal income tax purposes.

"Total Delivery Entitlement Obligation" shall mean, subject to the Master Water Contract, the total amount of Nacimiento Project Water which the District shall make available in each Water Year as Delivery Entitlements to the Participant and Other Delivery Entitlements to the Other Participants under this Contract and under all the other Like-Contracts, and which total shall not exceed the Nacimiento Reservoir Water, less the Prior Commitment Water and less the Reserve Water.

"Total Nacimiento Project Construction Costs" shall mean the costs and expenses incurred by the District in the acquisition and construction of the Nacimiento Facilities.

"Total Participant Contract Payments" shall mean all of the payments due from the Participant and the Other Participants pursuant to Articles 16 and 17 hereof and the corresponding Articles of the Like-Contracts with the Other Participants.

"Turn-Back Pool Water" shall mean that part of the Delivery Entitlement which the Participant does not request be delivered for the Water Year in question in accordance with Article 7 hereof, together with those portions of the Other Delivery Entitlements which are not requested to be so delivered under the correlative provisions of the affected Like-Contracts.

"Unit" shall mean those facilities, which collectively make up the operating segments of the Nacimiento Facilities, delineated as provided in Exhibit A.

"Unit Percentage Share" shall mean the Participant's pro rata share of the Capital Reserve Costs, the Operation and Maintenance Costs and All Other Construction Costs Component for each Unit and as set forth in Article 16(C)(1) and (3)(c) herein; or, in the context of a Like-Contract with any Other Participant, the term "Unit Percentage Share" shall mean and refer to the correlative pro rata share of such Other Participant or Participants.

"Variable Energy Costs" shall mean the actual Nacimiento Facilities pumping energy costs incurred by the District in conveying and delivering: (i) the Delivery Entitlement and Surplus Water to the Participant and (ii) the respective Other Delivery Entitlements and surplus water to the Other Participants as defined under their respective Like-Contracts and as set forth in Article 16(C)(2) hereof.

"Water Delivery Entitlement Contracts" shall mean this Contract and the other Nacimiento Project Water Delivery Entitlement Contracts entered into by and between the District and the Other Participants.

"Water Enterprise" shall mean the water system operated and to be operated by the Participant for sales of water to its customers or to the general public within the Participant's jurisdiction.

"Water Enterprise Charges" shall mean the rates and charges imposed and collected by the Participant for the provision of water through its Water Enterprise.

"Water Rights" shall mean (a) water rights, (b) claims to water rights or (c) agreements concerning water rights, including, but not limited to, overlying, prescriptive, appropriative, riparian or pueblo rights.

"Water Year" shall mean the twelve (12)-month period from October 1 of a each year to and including September 30 of next following year.

"Wheeling Customer" shall mean any person or entity to which the District conveys water, other than Nacimiento Project Water, through any Unit.

ARTICLE 2:
TERM OF CONTRACT; RESCISSION

(A) Term. This Contract shall become effective on the Effective Date and shall remain in effect throughout the term provided by Section 3 of the Master Water Contract; *provided*, that if and when, through no fault of the District, one or more provisions of the Master Water Contract shall be terminated or suspended in the manner and for a cause specified in the Master Water Contract, the District's obligations to the Participant and to the Other Participants under this Contract and under Like-Contracts shall likewise be terminated or suspended; *provided*, however, that this Contract may not be terminated, suspended or rescinded so long as there remain outstanding any Municipal Obligations issued by the District for the Nacimiento Facilities.

(B) Implementation of the Design Phase and Construction Bidding. The parties hereto acknowledge that the total Nacimiento Project Construction Costs are estimated to be $150,000,000 as of the Effective Date; the parties hereto further acknowledge that the actual total costs of construction of the Nacimiento Project will be determined through a competitive bid process applicable to the District at the conclusion of the Design Phase (collectively, the "Construction Bids"). The District covenants and agrees to provide All Participants with a summary report of the Construction Bids, not less than two (2) Business Days following the date upon which the last of such bids is received. In the event that the District finds it necessary or advisable to divide the Construction Phase into two or more subphases, it shall provide a summary report to All Participants of those Construction Bids it deems sufficient to begin the Nacimiento Project (which shall include Construction Bids on no less than thirty percent (30%) of the total estimated Nacimiento Project Construction Costs) and a sound estimate (which shall then be current and shall be based, as appropriate, on construction bids received) of total Nacimiento Project Costs, and shall so state and so estimate in its report to All Participants. The thirtieth (30^{th}) calendar day following the date upon which such report is received by the Participant is referred to as the "Opt-out Date." It is understood and agreed by the parties hereto that the District will incur certain costs and expenses for the Design Phase, which it intends to pay for, in large part, from the proceeds of sale of the Notes. The Construction Bids can only be developed as a result of planning to be accomplished during the Design Phase, by the end of which, the District anticipates that all of the proceeds of the Notes will have been expended. The Participant expressly understands and agrees that the use of the Notes to finance the costs of the Design Phase is an expenditure for the shared benefit of its Water Enterprise and the Water Enterprise of each Other Participant. The District shall not award any construction contracts for the Nacimiento Project until such time as the District shall have consulted with All Participants as to whether to proceed with the Nacimiento Project, and in no event shall any award of a Construction Bid be made, nor shall any Long-Term Project Debt be issued, prior to the Opt-out Date.

(C) Termination of Participation in Nacimiento Facilities by Participant after Effective Date. Subject to the provisions of subparagraph (A) above, the Participant may withdraw from this Contract (and any Other Participant may withdraw from any Like-Contract) following the Effective Date and on or prior to the Opt-out Date, but only if the total Nacimiento Project Construction Costs shall exceed the figure given in paragraph (B) above. In order to withdraw from participation hereunder, the Participant shall provide written notice to the District and to each Other Participant that it elects to opt out of the Construction Phase.

(D) Obligations of District, of All Participants and of Participant in the Event of Opting Out. The Participant agrees with the District and all Other Participants that the Initial Participants shall share the costs of the Design Phase by the expedient of remaining obligated for the repayment in full of the principal of and interest on the Notes, whether or not the Participant should subsequently take advantage of the forgoing provisions to opt out of the remaining term of this Contract. Should the Participant elect to withdraw from this Contract on the Opt-out Date, it shall nonetheless repay to the District its pro rata share (in proportion to its Delivery Entitlement Share) of the principal of and interest on the Notes by a date no later than one (1) year following the Opt-out Date. The Participant understands and agrees that the District shall not be obligated to pay any portion of the expenses for the Design Phase or the Municipal Obligations, which shall instead be the pro rata obligations of the Participant and the Other

Participants which will benefit from the Nacimiento Project, and that, in the absence of the Participant's having withdrawn on an Opt-out Date, the Participant and the Other Participants then remaining shall pay to the District pro rata (in proportion to their respective Delivery Entitlement Share or Other Delivery Entitlement Shares) the amount necessary to pay or redeem any outstanding Municipal Obligations. The provisions of this Article shall survive the rescission of this Contract.

(E) Rescission Following Construction of the Nacimiento Project. Subject to the provisions of subparagraph (A) above, this Contract may be rescinded by the unanimous written consent of the District, the Participant and all Other Participants.

ARTICLE 3:
CONSTRUCTION OF THE NACIMIENTO FACILITIES

(A) District's Authority to Enter Contracts, to Engage Consultants and to Finance the Nacimiento Facilities. The Participant understands and agrees that the District will finance the acquisition and construction of the Nacimiento Facilities by means of the issuance and sale of Municipal Obligations and the Participant agrees that the District shall, and is hereby authorized to cause the execution and delivery of the Municipal Obligations on terms and conditions favorable to the District, to the Participant and to the Other Participants, and which terms and conditions will be established by the market conditions at the time of the sale of the Municipal Obligations. In particular, the Participant acknowledges and agrees that:

(1) The District shall contract for the public works comprising the Nacimiento Facilities on such terms as the District, in its sound business judgment may deem in the best interests of the District, the Participant and the Other Participants, but only following consultation with the Nacimiento Project Commission; and

(2) The District may engage Consultants as may be necessary and/or convenient in order to plan, finance, acquire and construct the Nacimiento Facilities and to issue and sell the Municipal Obligations, on such terms and conditions as the District shall determine, *provided*, however, that the District and the Participant hereby agree that all such contracts already in place as of the effective date of this Contract shall be deemed valid and the costs thereof to the District shall be deemed appropriate costs and expenses of the District in the acquisition and construction of the Nacimiento Facilities ; and

(3) The District may authorize and sell at either public or private sale, and cause to be executed and delivered, the Municipal Obligations at any time, or times, following the effective date hereof, to provide for the financing or reimbursement to the District of the costs of the acquisition and construction of the Nacimiento Facilities, to pay capitalized interest on the Municipal Obligations, to establish a reserve fund for the Municipal Obligations and to pay the costs of delivery thereof; and

(4) The Participant shall execute and provide such instruments, certificates, agreements and opinions of counsel as may be necessary in order for the District to deliver the Municipal Obligations, including, without limitation, information for inclusion in the disclosure document for the Municipal Obligations and a continuing

disclosure agreement to permit compliance with Rule 15c2-12 of the Securities and Exchange Commission, respecting the Participant's financial condition and operations, and certificates and agreements evidencing compliance with the covenants set forth in Article 22 hereof; and

(5) The Participant will cooperate with the District and its Consultants in connection with the planning, acquisition and construction of the Nacimiento Facilities and the authorization and delivery of the Municipal Obligations.

(B) Commencement of Construction. The District will use its best efforts to cause or accomplish the construction and financing of the Nacimiento Facilities, the obtaining of all necessary authority and rights, and the performance of all things necessary and convenient therefor. The District will commence the acquisition and construction of the Nacimiento Facilities on any date after the Effective Date and when the following conditions have been met:

(1) The District determines such acquisition and commencement of construction is permitted under the Master Water Contract and state, federal and local law; and

(2) The District has received from the District's Consulting Engineer a certification that, based on contracts awarded by the District for the acquisition and construction of the Nacimiento Facilities, and based upon the Consulting Engineer's estimates of the costs of the portions of the Nacimiento Facilities for which contracts have not been awarded, the District has sufficient moneys from (i) the proceeds of the Municipal Obligations, together with (ii) estimated proceeds to be derived from any other authorized but unissued Municipal Obligations, and (iii) moneys on deposit with the District and legally available to complete the Nacimiento Facilities.

ARTICLE 4:
OWNERSHIP, OPERATION AND MAINTENANCE OF NACIMIENTO FACILITIES

(A) District Ownership of the Nacimiento Facilities. The Nacimiento Facilities and all of its pumps, machinery, conduits, apparatus, fixtures, fittings and equipment of any kind, real property (including rights-of–way) and capacity are and shall be, owned by the District and shall be held and operated and maintained by the District as provided for herein.

(B) District's Objectives and Covenants. The parties hereto acknowledge and agree that the primary goal of the District under this Contract shall be to deliver Nacimiento Project Water to the Participant and to the Other Participants, subject to cost considerations, as to which the District shall be expected to exercise sound business judgment. In this regard, the District covenants and agrees that it will operate and maintain the Nacimiento Facilities in accordance with the Master Water Contract, all governmental laws, ordinances, approvals, rules, regulations and requirements, including, without limitation, such zoning, sanitary, pollution, environmental and safety ordinances and laws and such rules and regulations thereunder as may be binding upon the District. The District further covenants and agrees that it will maintain and operate the Nacimiento Facilities in good repair, working order and condition, and that it will from time to time inspect and test all Nacimiento Facilities against then-current water supply industry

standards, and that the District will pursue all necessary and proper replacement, repairs, renewals and improvements thereto. In its operation of the Nacimiento Project, the District shall have as an objective the maximum beneficial use of the Nacimiento Project Water and its conservation. The District, the Participant and the Other Participants agree that they shall individually and collectively cooperate and work towards this objective. The District, the Participant and the Other Participants, individually and collectively, agree further that, to the extent feasible, all revenues received from the Nacimiento Facilities shall be used for the sole benefit of the Nacimiento Facilities and that all parties shall pay their respective shares of Nacimiento Project Costs for Nacimiento Project Water received.

The District further covenants and agrees that it will take any and all action necessary to enforce the rights vested in the District by this Contract and the Master Water Contract as the District deems most appropriate. However, in the event the District fails to enforce any such rights, the Participant may assert such rights on behalf of the District by such means as the Participant deems most appropriate. Nothing in this Contract shall impair or otherwise affect, in any manner, the Participant's right to assert, defend, enforce or otherwise protect any and all rights vested in the Participant by this Contract.

(C) District's Capital Reserves; Annual Budgets to Be Prepared by the District. In order to satisfy its covenants set forth in this Article, the District shall determine the amount of Capital Reserves necessary for the Nacimiento Facilities for the upcoming Water Year and shall prepare its draft annual budget by no later than March 1 to reflect such Capital Reserves. The District shall provide copies of each such budget to the Nacimiento Project Commission, the Participant and the Other Participants for review and comment prior to the distribution of the draft annual budget to the Board of Supervisors, and shall, if deemed necessary or advisable, develop and promulgate to the Nacimiento Project Commission, the Participant and the Other Participants a multi-year improvement plan for the Nacimiento Facilities reflecting the annual requirements for the Capital Reserves.

ARTICLE 5:
EXISTING OBLIGATIONS: MASTER WATER CONTRACT AND PRIOR COMMITMENT WATER

(A) Primacy of Master Water Contract. The obligations of the District under this Contract and the obligations of the District under each and every Like-Contract with the Other Participants, shall be subject to the provisions of the Master Water Contract and should the provisions of the Master Water Contract restrict, impair or prohibit the District from the performance of any or all of the District's obligations under this Contract and/or the Like-Contracts with the Other Participants, then the District shall, to the extent that the District is so restricted, impaired or prohibited, be relieved of its said performance obligations to the Participant under this Contract. This Contract does not create in the Participant any right, rights or interest in or to the Master Water Contract. The Participant has been provided with a copy of the Master Water Contract for review. On advice of counsel, the Participant has reviewed the Master Water Contract and determined that the terms of the Master Water Contract do not conflict with the terms of this Contract or the Participant's obligations hereunder.

(B) Prior-Commitment Water. No part of the Prior-Commitment Water shall be used by the District to satisfy any of the District's obligations under this Contract with the Participant, Like-Contracts with Other Participants or the District's agreements with Reserve Water Customers or third parties.

ARTICLE 6:
DELIVERY ENTITLEMENT

(A) Amount of Delivery Entitlement. Subject to the provisions of Article 14(D), and so long as water is made available to the District under the Master Water Contract, the District shall make available to the Participant, in each Water Year, the Delivery Entitlement of Two Thousand (2,000) acre-feet of Nacimiento Project Water. Notwithstanding the foregoing:

(1) The Total Delivery Entitlement Obligation available under this Contract and under the Like-Contracts with the Other Participants may be reduced, following written notice given to the Participant from the District, for any of the conditions or reasons set forth in Articles 13, 14 and 15 hereof; and

(2) Under this Contract and all Like-Contracts, the District shall not be obligated to deliver to the Participant or to any Other Participants, nor shall said Participants have any rights in or to, any of the District's Prior-Commitment Water.

(B) Limit on Rate of Deliveries of Water to Participant. In no event shall the District be obligated to deliver the Delivery Entitlement and/or Surplus Water through any delivery structure of the Nacimiento Facilities at a total combined instantaneous rate of flow exceeding 3.0 cubic feet per second. The maximum amount of said water to be delivered by the District to the Participant from the Nacimiento Facilities in any one month of any year shall not exceed 183 acre-feet. While the District is not required to deliver more than 183 acre-feet of water to the Participant in any one month of any year, and while the District is not obligated to deliver the Delivery Entitlement and/or Surplus Water through any delivery structure of the Nacimiento Facilities at a total combined instantaneous rate of flow exceeding 3.0 cubic feet per second, in the event deliveries required to be made by the District to the Other Participants do permit a higher monthly rate of delivery to the Participant, then the District shall have the discretion temporarily to exceed the maximum monthly deliveries provided for herein.

In the event that the Participant shall desire to have the Nacimiento Project constructed in such a manner as to allow the District to deliver the Delivery Entitlement through any delivery structure of the Nacimiento Project at a total combined instantaneous rate of flow exceeding 3.0 cubic feet per second, the Participant shall notify the District in writing prior to the time that the District shall have completed the final design of the Nacimiento Project. At the time the District receives said request, the District shall determine the additional costs of the Nacimiento Project which are attributable to the Participant's desired increased rate of flow. The Commission shall review the District's determination of the aforesaid additional costs and report the additional costs to the Participant. The Participant agrees that the Participant shall be solely responsible for and shall pay to the District the additional costs of construction of the Nacimiento Project which are attributable to the increased rate of flow.

(C) No District Obligation to Deliver at Particular Head or Pressure. The District is under no obligation to the Participant to deliver the Delivery Entitlement at any particular head or pressure; however, the Nacimiento Project shall be designed to deliver water to the Participant's turnout at a hydraulic grade line of 1,020 feet.

(D) Participant's Right to Acquire Additional Delivery Entitlement. To the extent that the District has available Reserved Water, Participant shall have the right to apply to, and acquire from, the District, additional delivery entitlement as provided for in Article 29 herein.

ARTICLE 7:
WATER YEAR DELIVERY AMOUNTS AND SCHEDULE

The amounts, times and rates of delivery of the Delivery Entitlement to the Participant during any Water Year shall be in accordance with a water delivery schedule determined by the District in the following manner:

(A) Preliminary Water Delivery Schedule. On or before October 1 of each Calendar Year, the Participant shall submit in writing to the District a preliminary water delivery schedule which sets forth the amounts, rates and times of the conveyance and delivery of the Delivery Entitlement as is desired by the Participant for each month of the next succeeding three (3) Water Years.

(B) Coordination with Other Participant Preliminary Schedules. Upon receipt of the Participant's preliminary water delivery schedule, the District will consider the Participant's requested schedule, and the preliminary water delivery schedules submitted to the District by the Other Participants, and, after consultation with the Participant, the District shall make such modifications in the Participant's preliminary water delivery schedule as will allow the District to schedule the amounts, times and rates of the conveyance and delivery of the Delivery Entitlement, and those of the Other Participants, so that the requests of the respective Participants will match as closely as possible their respective requests but in a manner which is consistent with the efficient and economical operation of the Nacimiento Facilities.

(C) Amendment of Schedules. The Participant's water delivery schedule may be amended, from time to time, upon the written request of the Participant to the District, subject to the pre-existing obligations of the District under the water delivery schedules of Other Participants for the same period of time.

ARTICLE 8:
PLACE OF DELIVERY

(A) Place of Delivery. All of the Delivery Entitlement and all Surplus Water furnished to the Participant shall be delivered to the Participant at Unit T6 (the "Place of Delivery").

(B) Request for Change in Place of Delivery during First Half of Design Phase. If the Participant shall desire to change its Place of Delivery at any time prior to the time that the Design phase is half completed, the Participant may do so, *provided*, the Participant shall be

solely responsible for any and all costs of design, construction or operation attributable to the change in Place of Delivery. No request during the Design Phase for a change in the place of delivery will be granted if such change would cause a material delay in either the Design Phase or the Construction Phase or would require the District to prepare an environmental impact report.

(C) Request for Change in Place of Delivery at any Time. If the Participant shall desire at any time during the term of this Contract to change the Place of Delivery, or to request an additional place(s) of delivery, the Participant may do so, *provided*, the new or additional place of delivery will not interfere with, or restrict, or impair, the conveyance or delivery of the delivery entitlement of any Other Participant and, *provided* that the Participant shall furnish to the District all of the costs and expenses which the District shall incur in the acquisition and construction of the new or additional place of delivery for the Participant.

ARTICLE 9:
MEASUREMENT OF DELIVERY ENTITLEMENT AND SURPLUS WATER

All of the Delivery Entitlement and all Surplus Water furnished to the Participant pursuant to this Contract shall be measured by the District by means of the District's measuring device(s) located at the place(s) of delivery established for the Participant under Article 8 of this Contract. Upon the request of the Participant, the District shall investigate the accuracy of the District's measurements, and the District, in writing, shall deliver the findings of the District to the Participant. Any error discovered in the course of such an investigation shall be cause for an adjustment in the amounts charged the Participant. The Participant may, at the Participant's expense, and after reasonable notice to the District, inspect the District's measuring equipment for the purpose of determining the accuracy of the equipment.

ARTICLE 10:
NO RESPONSIBILITY

After the Delivery Entitlement or any portion thereof, and/or after the Surplus Water or any portion thereof, shall have passed the place(s) of delivery established for the Participant under Article 8 of this Contract, neither the District nor its officers, agents or employees shall be liable for the control, carriage, conveyance, handling, use, disposal, distribution or changes occurring in the quality or quantity of such water, or for any claim or damages of any nature whatsoever, including, but not limited to, property damage or personal injury or death arising out of or connected with the control, carriage, conveyance, handling, use, disposal, distribution or changes occurring in the quality or quantity of such water beyond such place(s) of delivery. The Participant shall defend, indemnify and hold harmless the District and its officers, agents and employees from and against any such damages or claims of damage.

ARTICLE 11:
WATER QUALITY

When the District shall deliver the Delivery Entitlement and/or any Surplus Water to the Participant from the Nacimiento Project Water, said water shall be at a quality that is

substantially the same as the quality of said water at the time it was taken from the Nacimiento Reservoir by the District. The District shall assume no further or additional responsibility for the quality of the water delivered to the Participant under this Contract and the District does not warrant the quality of any such water for any particular use. The Participant shall be responsible for the treatment of all such water to the minimum water quality standards for water for domestic use as may be established from time to time by the State of California and/or by the federal government and the Participant shall defend, indemnify and hold harmless the District from and against any and all claims, damages, costs, expenses, judgments, attorney fees or other liability to any person or entity asserting that said water does not meet or has not met said domestic use water quality standards.

ARTICLE 12:
SURPLUS WATER

(A) District Determination of Amount of Surplus Water; Reserve Pool; Turn-Back. The District shall notify All Participants of the total amount of Surplus Water, if any, available for a Water Year on or about the first day of the then-current Water Year, and once so declared by the District, said amount shall not be changed without first obtaining the consent of All Participants. Surplus Water purchased by the Participant will be delivered to the Participant in the same manner provided for the delivery of the Participant's Delivery Entitlement and to the extent that all of said Surplus Water purchased is not in fact taken by the Participant by the end of the Water Year in question, then such undelivered amount of Surplus Water shall revert to the District and shall not thereafter be available to the Participant.

(B) Sale of Surplus Water by District; Rates. From the Surplus Water held by the District, the District shall first sell any and all of the Reserve Pool Water portion of the Surplus Water. No Turn-Back Pool Water shall be sold by the District so long as any Reserve Pool Water remains unsold.

(1) Sale of Reserve Pool Water. The District shall offer the Reserve Pool Water to the Participant and to Other Participants pro rata in proportion to their respective Delivery Entitlement Share and Other Delivery Entitlement Shares. Any amounts of Reserve Pool Water not purchased by an Other Participant shall be re-offered to the Participant, if it purchased its pro rata share of Reserve Pool Water, and the Other Participants purchasing Reserve Pool Water pro rata according to their respective Delivery Entitlement Share and Other Delivery Entitlement Shares until all of the Reserve Pool Water has been sold.

(a) Price for Reserve Pool Water. For Reserve Pool Water, the Participant shall pay to the District the sum of the following:

(1) The portion of the Operation and Maintenance Costs attributable to the Reserve Pool Water and incurred by the District in the immediately preceding Water Year per acre-foot; plus

(2) The Variable Energy Costs incurred by the District for the delivery of the Reserve Pool Water as calculated in Article 16(C)(2) hereof.

(b) Revenues from Sale of Reserve Pool Water. All revenues derived by the District from the sale of Reserve Pool Water shall be applied as a credit against the obligations of the Participant and the Other Participants in proportion to the Delivery Entitlement Share and the Other Delivery Entitlement Shares of the Participant and the Other Participants, respectively.

(2) Sale of Turn-Back Pool Water. The District shall offer the Turn-Back Pool Water to the Participant and to the Other Participants pro rata in proportion to their Delivery Entitlement Share and Other Delivery Entitlement Shares, respectively.

(a) Price for Turn-Back Pool Water. For the Turn-Back Pool Water, the Participant shall pay to the District the sum of the following:

(1) The average of the Operation and Maintenance Costs incurred by the District in the immediately preceding Water Year per acre-foot for the delivery of the Delivery Entitlement and the Other Delivery Entitlements to the Participant and to the Other Participants, respectively; plus

(2) The Variable Energy Costs incurred by the District for the delivery of the Turn-Back Pool Water as calculated in Article 16(C)(2) hereof.

(b) Revenues from Sale of Turn-Back Pool Water. All revenues derived by the District from the sale of Turn-Back Pool Water shall be applied as a credit against the obligations of those Participants contributing to the Turn-Back Pool Water and in the proportion to the amount each Participant contributes to the Turn-Back Pool Water in the Water Year, if at all.

(C) If the Participant shall commit in writing to purchase such Surplus Water from the District, the Participant shall be obligated to pay for such Surplus Water, whether or not the Participant accepts delivery of the Surplus Water, so long as such Surplus Water was available for the period in question. Neither the Participant nor any Other Participant shall resell Surplus Water on a wholesale basis at any time to persons or entities not a party to this Contract or to Like-Contracts, without the prior written consent of the District and all Other Participants; provided, however, that this provision is not intended to limit the sales of Surplus Water to the end customers of the Participant.

(D) The District may offer to sell and deliver any Surplus Water not purchased by the Participant or the Other Participants to any other prospective purchaser without right of renewal, in a manner and at prices which will return to the District the largest Net Revenue practicable for the benefit of the Nacimiento Facilities, but in no event at prices less than those at which such Surplus Water is offered to the Participant, unless the Participant is first tendered such Surplus Water by the District at the lower price in writing, and in each case, attempting to recapture the

Operation and Maintenance Costs, the Variable Energy Costs and the Capital Projects Installment Debt Service attributable to the volume of Surplus Water actually purchased by such third parties, at the highest price the market will then bear.

ARTICLE 13:
CURTAILMENT OF DELIVERY

The District may temporarily discontinue or reduce the amount of Nacimiento Project Water to be furnished to the Participant during such time as the District is maintaining, repairing, replacing, investigating, or inspecting any of the portions of the Nacimiento Facilities necessary for the furnishing of water to the Participant. Insofar as it is feasible, the District shall give the Participant notice in advance of any such temporary discontinuance or reduction, except in the case of emergency, in which case no notice need be given. In the event of such discontinuance or reduction, the District will upon resumption of service, deliver, as nearly as may be feasible, the quantity of Nacimiento Project Water which would have been furnished to the Participant in the absence of such discontinuance or reduction. Notwithstanding the foregoing, under no circumstances shall the Participant be relieved of any obligation to make Contract Payments as a result of such temporary discontinuance or reduction of Nacimiento Project Water.

ARTICLE 14:
NACIMIENTO PROJECT WATER SHORTAGES

(A) Temporary Shortages. In any Water Year in which there may occur a shortage or interruption due to drought or other temporary cause in the supply of the Nacimiento Reservoir Water available for delivery by the District to the Participant, to the Other Participants and/or to the Reserve Water Customers, with the result that the amount of such supply is less than the total of: (i) the Delivery Entitlement and (ii) the Other Delivery Entitlements, plus (iii) the amount of the District's obligations to the Reserve Water Customers for that Water Year, the District shall calculate the amount of said reduced supply of water available to the District for use as Nacimiento Project Water and shall apportion the reduced supply of water as follows:

(1) Subject to the provisions of paragraph (D) below, from the reduced amount of Nacimiento Reservoir Water available to the District under the Master Water Contract in the Water Year in question, the District will subtract One Thousand Seven Hundred Fifty (1,750) Acre-Feet of the Prior-Commitment Water and the result shall be the reduced supply of Nacimiento Reservoir Water available to the District for use as Nacimiento Project Water under this Contract and under the Like-Contracts with Other Participants, and for the District's obligations to Reserve Water Customers; and

(2) For the Water Year in question, the District shall first apply the said reduced supply of Nacimiento Project Water to satisfy the Delivery Entitlement and the Other Delivery Entitlements, and then, to the satisfaction of the District's obligations to Reserve Water Customers. In the event that the said reduced supply of Nacimiento Project Water is insufficient to meet, in full, the Delivery Entitlement and the Other Delivery Entitlements, then the District (i) shall make no deliveries to Reserved Water Customers for that Water Year, and (ii) shall reduce the delivery of water to All

Participants pro rata according to the Delivery Entitlement Share or Other Delivery Entitlement Shares of the Participant and each Other Participant, respectively. In the event that said reduced supply of Nacimiento Project Water is sufficient to meet the Delivery Entitlement and the Other Delivery Entitlements, but not the full amount then due to Reserve Water Customers, the District shall reduce the delivery of Reserve Water among the Reserve Water Customers pro rata, according to the amounts they have contracted for during the Water Year in question.

(B) Permanent Shortages. In the event that there is a reduction in the supply of Nacimiento Reservoir Water provided to the District under the Master Water Contract, which notwithstanding the preventative or remedial measures taken by the Monterey Water Agency, threatens or causes a permanent shortage in the amount of Nacimiento Reservoir Water available to the District under the Master Water Contract, with the result that the District concludes such supply will, for an indefinite period extending beyond the current Water Year, be less than Seventeen Thousand Five Hundred (17,500) Acre-Feet, the District shall calculate and apportion the permanently reduced supply of water as follows:

(1) Subject to the provisions of paragraph (D) below, from the reduced supply of Nacimiento Reservoir Water available to the District under the Master Water Contract, the District will subtract One Thousand Seven Hundred Fifty (1,750) Acre-Feet of Prior-Commitment Water and the result shall be the amount of Nacimiento Reservoir Water available to the District for use as the reduced Nacimiento Project Water under this Contract, the Like-Contracts with Other Participants and for the District's obligations to Reserve Water Customers; and

(2) For future Water Years, the District shall first apply the reduced supply of Nacimiento Project Water to satisfy the District's obligations to the Participant under this Contract and to the Other Participants under Like-Contracts, and then to the satisfaction of the District's obligations to Reserve Water Customers. In the event that the reduced Nacimiento Project Water is insufficient to meet, in full, the District's obligations to the Participant under this Contract and to the Other Participants under the Like-Contracts, the District shall permanently reduce the delivery of water to All Participants pro rata, in proportion to the Participant's Delivery Entitlement Share and the Other Participants' Other Delivery Entitlement Shares. In the event that the reduced Nacimiento Project Water is sufficient to meet the District's obligations to All Participants under this Contract and the Like-Contracts, but not the full amount then due to Reserve Water Customers then the District shall reduce the delivery of Reserve Water to Reserve Customers pro rata, according to the amounts contracted for during the most recent Water Year completed.

(3) In the event and to the extent that the permanent shortage is ameliorated and some or all of the reduced Nacimiento Reservoir Water is later restored to the District, the restored amount of water shall be allocated to the Participant and the Other Participants in proportion to the Delivery Entitlement Share and the Other Delivery Entitlement Shares, respectively.

(C) No Liability for Shortages. Neither the District nor any of its officers, agents, or employees shall be liable for any damage, direct or indirect, arising from shortages in the amount of Nacimiento Project Water to be made available to the Participant under this Contract caused by the non-availability of water to the District under the Master Water Contract or caused by drought, operation of the Nacimiento Reservoir, operation of area of origin laws, or any other cause beyond the control of the District.

(D) Equitable Sharing of Shortages with Prior-Commitment Water. To the extent that the District is able to do so under the District's contractual obligations to the persons and entities entitled to Prior-Commitment Water, the District will, during times of shortage, endeavor to reduce the amounts of Prior-Commitment Water extracted from the District's 17,500 acre-feet of water from the Nacimiento Reservoir in proportion to the ratio of 1,750 to 17,500.

ARTICLE 15:
LIMITATIONS ON OBLIGATION TO FURNISH WATER

(A) Limited District Obligations. Notwithstanding any provisions of this Contract to the contrary, the obligation of the District to furnish Nacimiento Project Water hereunder shall be limited to the times and to the extent that water from the Nacimiento Reservoir and the facilities necessary for furnishing the same are available to the District pursuant to the Master Water Contract.

(B) District Not Liable for Monterey Water Agency Failure to Perform Master Water Contract. The District shall not be liable for its failure to perform any part of this Contract to the extent that such failure is caused by the wrongful failure of the Monterey Water Agency to perform any obligation imposed on the Monterey Water Agency by the Master Water Contract; *provided*, that the District shall diligently and promptly pursue all rights and remedies available to the District to enforce the rights of the District against the Monterey Water Agency under the Master Water Contract relative to such failure to perform and *provided* further, that the costs and expenses incurred by the District in the enforcement or attempted enforcement of said rights under the Master Water Contract shall be considered to be a part of the Operation and Maintenance Costs under this Contract.

ARTICLE 16:
OBLIGATIONS FOR NACIMIENTO PROJECT COSTS

(A) Participant's Obligations to Pay. The Participant shall pay its Contract Payments to the District, in the manner provided below

(B) District's Determination of Nacimiento Project Costs for each Fiscal Year. On or before April 1 of each Calendar Year, the District shall estimate the new or additional Nacimiento Project Costs for the Fiscal Year commencing on the immediately following July 1 and the result shall comprise the Total Participant Contract Payments due, collectively, from the Participant hereunder and from the Other Participants under their respective Like-Contracts for the said Fiscal Year. Nacimiento Project Costs shall include:

(1) Nacimiento Project Construction Costs;

(2) Additional Capital Project Costs;

(3) Capital Projects Installment Debt Service;

(4) Master Water Contract Costs incurred following the first date upon which an allocation of *ad valorem* property taxes under Article 17(B)(5);

(5) Capital Reserve Costs;

(6) Operation and Maintenance Costs;

(7) Variable Energy Costs;

(8) Reserved Capacity Costs;

(9) Environmental mitigation costs; and

(10) Other annual or incidental costs associated with the Nacimiento Facilities.

(C) District's Allocation of District's Nacimiento Project Costs. Nacimiento Project Costs shall be allocated by the District among the Participant and all Other Participants as follows:

(1) The District shall allocate Capital Reserve Costs and Operation and Maintenance Costs to the Participant on the basis of the Unit Percentage Share of Capital Reserve Costs and Operation and Maintenance Costs attributable to the Units used by the District to deliver the Delivery Entitlement to the Participant. As of the date of execution of this Contract, there is apportioned to the Participant the following proportional share of the said costs (expressed as a percentage) for each of the Units used to deliver water to the Participant:

Project Segment	Participant's Unit Percentage Share
Systemwide Operating Cost	20.768%
Unit No. A	20.768
Unit No. A1	20.768
Unit No. B	20.768
Unit No. C	20.768
Unit No. C1	20.768
Unit No. D	35.524
Unit No. E	37.175
Unit No. F	0.000
Unit No. F1	20.768
Unit No. F2	0.000
Unit No. G	0.000
Unit No. G1	0.000
Unit No. G2	0.000
Unit No. H	0.000
Unit No. H1	0.000
Unit No. T6	100.000

The Participant shall pay such amounts allocated to the Participant under this paragraph in the manner provided for in Article 17(A)(1) and (2) below.

(2) For each Calendar Quarter, Variable Energy Costs shall be determined by the District and shall be allocated to the Participant and to the Other Participants as follows:

(a) Variable Energy Costs for the Calendar Quarter in question shall be divided by the total acre-feet of Nacimiento Project Water delivered by the District during such Calendar Quarter to the Participant and to all Other Participants pursuant to this Contract and Like-Contracts; and,

(b) The result in subsection (a) shall be multiplied by the number of acre-feet of Nacimiento Project Water delivered by the District to the Participant during such Calendar Quarter, which result shall be allocated to the Participant. The District shall notify the Participant in writing of the amount of Variable Energy Costs allocated to the Participant by a date no later than the forty-fifth (45^{th}) day following the end of each Calendar Quarter for the variable costs attributable to the Calendar Quarter most recently concluded. The Participant shall pay such amounts allocated to the Participant under this paragraph in the manner provided for in Article 17(A)(3) below.

(3) The District shall allocate Nacimiento Project Construction Costs as follows:

The Nacimiento Project Construction Costs shall have three components:

(a) The costs attributable to environmental mitigation requirements (the "Environmental Mitigation Construction Cost Component"). The Environmental Mitigation Construction Cost Component shall be allocated pro rata to the Participant and to the Other Participants on the basis of the Delivery Entitlement Share and the Other Delivery Entitlement Shares, respectively. As of the date of execution of this Contract, there is apportioned to the Participant Twenty and 768/1000 (20.768%) of the Environmental Mitigation Construction Cost Component.

(b) The costs attributable to the District's Reserved Capacity (the "Reserved Capacity Construction Cost Component"). The Reserved Capacity Construction Cost Component shall be allocated pro rata to the Participant and to the Other Participants on the basis of the Delivery Entitlement Share and the Other Delivery Entitlement Shares, respectively. As of the Effective Date, there is apportioned to the Participant Twenty and 768/1000 percent (20.768%) of the Reserved Capacity Construction Cost Component.

(c) The costs attributable to all other construction costs (the "All Other Construction Costs Component"). The All Other Construction Costs Component shall be allocated on a Unit Percentage Share basis. As of the date of execution of

this Contract, there is apportioned to the Participant the following proportional share of All Other Construction Costs Components (expressed as a percentage) for each of the Units used to deliver water to the Participant:

Project Segment	Participant's Unit Percentage Share
Unit No. A	20.768%
Unit No. A1	20.768
Unit No. B	20.768
Unit No. C	20.768
Unit No. C1	20.768
Unit No. D	28.146
Unit No. E	28.972
Unit No. F	10.384
Unit No. F1	20.768
Unit No. F2	10.384
Unit No. G	10.384
Unit No. G1	10.384
Unit No. G2	10.384
Unit No. H	10.384
Unit No. H1	10.384
Unit No. T6	100.000

The Participant shall pay such amounts allocated to the Participant under this paragraph in the manner provided for in Article 17(A)(1) and (2) below.

(4) The District shall allocate Capital Projects Installment Debt Service among All Participants, pro rata, according to the proportion of Nacimiento Project Construction Costs paid by the Participant and the Other Participants, as they may be adjusted for cash contributions under Article 17(B); *provided, however,* that the Capital Projects Installment Debt Service shall further be allocated into a component representing debt service on Tax-Exempt Obligations (the "Tax-Exempt Debt Service") and a component representing the debt service on Taxable Obligations (the "Taxable Debt Service"). If the Participant is eligible to borrow on a tax-exempt basis under the Tax Code, then the Participant and the Other Participants who are also so eligible shall be allocated their pro rata shares of Tax-Exempt Debt Service; if the Participant is not eligible to borrow on a tax-exempt basis under the Tax Code, then the Participant and any Other Participants who are also ineligible to so borrow shall be allocated their pro rata shares of Taxable Debt Service.

(5) The District shall allocate all other Nacimiento Project Costs not otherwise provided for above, including Master Water Contract Costs, to the Participant and to all of the Other Participants pro rata on the basis of the Delivery Entitlement Share for the Participant and the Other Delivery Entitlement Shares for the Other Participants. As of the date of execution of this Contract, there is apportioned to the Participant Twenty and 768/1000 percent (20.768%) of the District's said remaining costs, including the Required Additional Project Costs and Master Water Contract Costs. The Participant

shall pay such amounts allocated to the Participant under this paragraph in the manner provided for in Article 17(A)(4) below.

(6) The foregoing allocations shall be calculated by the District each Fiscal Year for the Participant and for each Other Participant and the calculations of said allocations shall be made available to the Participant.

(7) No more frequently than annually, the District shall retain a CPA with the approval of the Commission. The CPA shall be responsible for reviewing and confirming the District's allocation of the Participant's portion of Nacimiento Project Costs and reporting the same to the Participant, the District and each Other Participant.

(8) The obligations of the Participant, if any, for any Approved Additional Project will be established at the time of and by the agreement for each such Approved Additional Project.

ARTICLE 17:
CONTRACT PAYMENTS

(A) Time and Amount of Contract Payments. Except as established under Paragraph (C) below as to Capital Projects Installment Debt Service, the Contract Payments to the District shall commence no later than the first Fiscal Year during which the Delivery Entitlement is made available to the Participant hereunder, and in any event, promptly following receipt by the Participant of an invoice from the District. The Contract Payments shall be determined by the District as provided in Article 16 of this Contract and shall be paid by the Participant to the District in accordance with the further provisions of this Article, except and to the extent the Participant shall, in accordance with paragraph (B) below, be entitled to an offsetting credit.

(1) On or before July 1 of each Fiscal Year, the Participant shall pay a sum equal to sixty percent (60%) of the Participant's Allocation of Capital Reserve Costs, and Operation and Maintenance Costs as calculated and allocated under Article 16(C)(1) above; and

(2) On the immediately following January 1 within each Fiscal Year, the Participant shall pay a sum equal to forty percent (40%) of the Participant's Allocation of Capital Reserve Costs and Operation and Maintenance Costs as calculated and allocated under Article 16(C)(1) above; and

(3) On or before the thirtieth (30^{th}) day following its receipt of an invoice from the District under Article 16(C)(2), the Participant shall pay Variable Energy Costs as calculated and allocated under Article 16(C)(2) above, for the Calendar Quarter most recently concluded; and

(4) On or before July 1 of each Fiscal Year, the Participant shall pay a sum equal to the Participant's Allocation of Capital Projects Installment Debt Service as calculated and allocated under Article 16(C)(3) above.

(5) On or before July 1 of each Fiscal Year, the Participant shall pay a sum equal to the Participant's allocation of remaining Nacimiento Project Costs, including Additional Capital Project Costs and Master Water Contract Costs as calculated and allocated under Article 16(C)(4) above.

(B) Participant Credits against Contract Payments. The following shall constitute credits against the Contract Payments to the District:

(1) If, prior to the date upon which the District causes the Municipal Obligations to be sold, the Participant shall contribute to the District, in cash, a sum as and for the Participant's Capital Share of the District's estimate of the Total Nacimiento Project Construction Costs, or any portion of the Participant's Capital Share of said construction costs, then the amount of Capital Projects Installment Debt Service allocated to the Participant under Article 16(C)(3) above shall be reduced accordingly, but in no event to less than zero; and

(2) If the Participant shall, following the date of delivery of the Municipal Obligations, successfully implement a financing plan within its jurisdiction to fund all or a portion of the Participant's Contract Payments, during the term of the Municipal Obligations, by means of a levy of *ad valorem* property taxes, special assessments or special taxes, then all or a portion of the amount of Capital Projects Installment Debt Service to be allocated to the Participant under Article 16(C)(3) above, shall be credited to the Participant from amounts paid under such levy as though such amounts were paid directly by the Participant hereunder, subject to the prior approval of each rating agency then rating the Municipal Obligations and any bond insurer then providing insurance therefor; provided however, that, to the extent legally permissible, the District shall be made a third-party beneficiary of any pledge of such alternate source of revenues, with the power to enforce collection thereof, in the event that the Participant should fail to do so; and

(3) The Participant shall be entitled to a credit against the Participant's obligations to the District hereunder in the form of a share of the Net Revenues the District shall have received during the Fiscal Year in question. In determining the amount of such credits against the obligations of the Participant hereunder, the District shall apportion the District's net revenues from the foregoing sources; (i) first, against the obligations allocated to the Participant and to the Other Participants for the Reserved Capacity Construction Cost Component and in the same amount as the percentage allocation set forth for the Participant in Article 16(C)(3)(a) herein, and then (ii) against the obligations allocated to the Participant and to the Other Participants for the All Other Construction Costs Component and in the same amount as the percentage allocation set forth for the Participant in Article 16(C)(3)(c) herein.

(4) On or before December 1 of each year, the District shall deliver to the Participant a statement as to the actual Operation and Maintenance Costs and Capital Reserve charges incurred or imposed during the Fiscal Year most recently concluded, and shall set forth in such statement the District's determination as to whether the Contract Payments theretofore paid by the Participant were in excess of or less than the

Participant's allocated share of the actual costs incurred by the District for said items. If the Participant shall have paid less than the Participant's actual Unit Percentage Share for said items for such Fiscal Year, the Participant shall remit the difference to the District within one hundred eighty (180) days of the date upon which the Participant receives such a statement from the District. If the Participant shall have paid more than the Participant's actual Unit Percentage Share for such items for such Fiscal Year, the District shall credit the difference against the Participant's future Contract Payments to the District.

(5) If, in any Fiscal Year, the Nacimiento Water Fund of the District receives its allocated portion of the *ad valorem* taxes levied on the real property within the County of San Luis Obispo under the authority of Article XIIIA, Section 1(a) of the California Constitution, then the District shall apply said apportioned amount received by the District to the reduction of Reserved Capacity Construction Cost Component and the District shall continue to do so in each Fiscal Year in which the District receives such apportioned amounts up to and until the said Reserved Capacity Construction Cost Component is paid. The District shall credit to the Participant the Unit Percentage Share of said apportioned tax proceeds received by the Nacimiento Water Fund of the District, less any amounts (i) which the District is obligated to pay under the terms of the Master Water Contract and/or (ii) any amounts which are not received or retained by the District because of the operation of the Community Redevelopment Law (California Health and Safety Code Sections 33000 *et seq.*) or any other applicable law.

(C) Participant's Election Regarding Capitalized Interest. The District and the Participant understand and agree that the Participant's share of Capital Projects Installment Debt Service will be lower in the event that the Municipal Obligations attributable to the Participant are marketed and sold without capitalized interest. Accordingly, each Participant shall be entitled, by delivering written notice to the District no later than three (3) business days prior to the pricing of any Municipal Obligations issued, to elect to commence making its portion of Capital Projects Installment Debt Service during the first Bond Year as defined in that certain Indenture of Trust by and between SLO County Financing Authority and BNY Western Trust Company to be entered into in connection with the issuance of the Municipal Obligations, without regard to the date upon which delivery of Nacimiento Project Water is first made to the Participant. If no such election is received from the Participant, the District shall be entitled to include a capitalized interest component in the Municipal Obligations attributable to the Participant, to apportion said capitalized interest to the Participant and to include the costs of same in the Participant's portion of Capital Projects Installment Debt Service.

ARTICLE 18:
USE OF TOTAL PARTICIPANT CONTRACT PAYMENTS

During the term of this Contract and the Like-Contracts with Other Participants, the District shall proceed with due diligence to collect Total Participant Contract Payments as and when due, and shall deposit amounts collected into the Participant Revenue Fund promptly upon receipt, and shall apply all other amounts comprising Total Participant Contract Payments in the following order of priority:

(A) To the payment of Master Water Contract Costs;

(B) To the payment of Operation and Maintenance Costs;

(C) To the payment of Variable Energy Costs;

(D) To the payment of Additional Capital Project Costs; and

(E) To the replenishment of Capital Reserves for the Nacimiento Project.

ARTICLE 19:
OBLIGATION TO "TAKE-OR-PAY"

Neither the Participant's failure or refusal to accept delivery of water from the Nacimiento Facilities to which the Participant is entitled under this Contract nor the District's failure to deliver said water shall in any way relieve the Participant of its obligations to make payments to the District as provided for herein. Commencing on the first date that debt service payments are due under the Municipal Obligations provided for herein, the Participant shall pay all amounts due hereunder, including, without limitation, those due under Article 17 hereof, without reduction or offset of any kind, whether or not the Nacimiento Facilities or any part thereof is then operating or operable or its service is suspended, interfered with, reduced or curtailed or terminated in whole or in part, due to any of the reasons set forth in Articles 6(A), 13, 14 and 15, or otherwise, and such Participant's Contract Payments shall not be conditional upon the performance or nonperformance by any party to this Contract, or to the Like-Contracts, for any cause whatsoever; provided, however, that any savings from non-operation of the Nacimiento Facilities shall be apportioned among the Participant and the Other Participants in accordance with their respective percentages of the Participant's and each Other Participant's Unit Percentage Share.

The Participant's obligations to make Contract Payments and other payments required to be made hereunder are incurred by the Participant for the benefit of future holders of Municipal Obligations, and shall be absolute and unconditional. Such payments shall be absolutely net, free of any deductions, and are not subject to any reduction, whether by offset, recoupment, counterclaim or others. The Participant shall make all such payments notwithstanding the occurrence of any act or circumstances that may constitute failure of consideration, destruction of or damage to the Nacimiento Facilities, commercial frustration of purpose, any change in the tax or other laws of the United States of America or of the State of California, or any political subdivision or either of these.

ARTICLE 20:
PARTICIPANT'S PLEDGE AND COVENANTS

The Participant, unless it shall have paid cash as the Participant's portion of the Total Nacimiento Project Construction Costs as provided in Article 16 hereof, hereby pledges the gross water sales revenues of the Participant's Water Enterprise to the Participant's obligations under this Contract, and covenants and agrees to establish, fix and collect rates and charges from the

customers of Participant's Water Enterprise at levels sufficient to produce revenues from the Participant's Water Enterprise which are at least equal to:

(A) The costs of operating and maintaining the Participant's Water Enterprise; plus

(B) The Contract Payments, calculated in accordance with Article 16 hereof, including the amounts allocated to the Participant as the Participant's share of Capital Projects Installment Debt Service under Article 16(C)(3) hereof; plus

(C) The Coverage Factor for the amounts allocated to the Participant as the Participant's share of Capital Projects Installment Debt Service under Article 16(C)(3) hereof; and

(D) Under certain circumstances, that the Participant understands and agrees that the provisions of Article 25(B) hereof may impose upon the Participant a surcharge following the occurrence of any payment default by the Participant.

ARTICLE 21:
WATER ENTERPRISE OPERATION AND MAINTENANCE

(A) No Sale, Lease or Disposing of Participant's Water Enterprise. The Participant covenants and agrees not to sell, lease or otherwise dispose of its Water Enterprise or any part thereof essential to the proper operation thereof or to the earning or collection of the gross revenues of the Participant's Water Enterprise, nor to enter into any agreement or lease which would impair the operation of the Participant's Water Enterprise, or any part thereof necessary in order to secure adequate revenues for the payment of amounts due under this Contract; *provided*, however, that any real or personal property which has become nonfunctional or obsolete or which is not needed for the efficient operation of the Participant's Water Enterprise may be sold or disposed of if such disposition will not have the effect of reducing revenues of the Participant's Water Enterprise below the levels required under this Contract.

(B) Participant to Maintain Participant's Water Enterprise. The Participant covenants and agrees to maintain and preserve the Participant's Water Enterprise in good repair and working order at all times, to operate the same in an efficient and economical manner and to pay all operation and maintenance costs of the Participant's Water Enterprise as they become due, all in accordance with the best business judgment of the Participant.

(C) Participant's Budgets. The Participant covenants and agrees to adopt and deliver a budget to the District approved by the Participant's governing body setting forth the amounts budgeted to be paid under this Contract no later than the first day of each Fiscal Year.

(D) Participant's Covenants. The Participant covenants and agrees to comply with, keep, observe and perform all agreements, conditions, covenants and terms, express or implied, required to be performed by the Participant contained in all contracts for the use of the Participant's Water Enterprise and all contracts affecting or involving the Participant's Water Enterprise to the extent that the Participant is a party thereto.

(E) No Superior Liens or Payments. The Participant covenants and agrees not to create or allow any lien on or payment from the revenues of the Participant's Water Enterprise or any part thereof prior to, or superior to, the Participant's obligations to amounts payable under this Contract.

(F) Participant to Insure Water Enterprise. The Participant covenants and agrees to procure and maintain insurance relating to the Participant's Water Enterprise which the Participant shall deem advisable or necessary to protect its interests. Such insurance shall afford protection in such amounts and against such risks as are usually covered in connection with similar water enterprises in the State of California; provided, that the Participant shall not be required to procure or maintain any such insurance unless such insurance is commercially available at reasonable cost; and provided further, that any such insurance may be maintained under a self-insurance program, so long as such self-insurance program is maintained in accordance with standards and in such amounts as are then usually maintained for similar water enterprises in the State of California.

(G) Participant to Pay Obligations; Observe Laws. The Participant covenants and agrees to pay and discharge all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Participant's Water Enterprise or any part thereof when the same shall become due and to duly observe and conform to all valid regulations and requirements of any governmental authority relative to the operation of the Participant's Water Enterprise that are not being contested by the Participant in good faith.

(H) Eminent Domain. The Participant covenants and agrees that if all or any material part of the Participant's Water Enterprise shall be taken by eminent domain proceedings, or if the Participant receives any insurance proceeds resulting from a casualty loss to any material portion of the Participant's Water Enterprise, the proceeds thereof shall be used by the Participant to construct or install replacements for the condemned or destroyed components of the Participant's Water Enterprise or to prepay the Participant's share of Capital Projects Installment Debt Service under Article 16(C)(3) of this Contract.

ARTICLE 22:
COVENANTS OF THE DISTRICT AND THE PARTICIPANT; SPECIAL TAX COVENANTS

(A) Punctual Payment; Compliance with Documents. The District shall punctually pay or cause to be paid the interest and principal to become due with respect to all of the Municipal Obligations, but solely from amounts paid to the District under this Contract and the Like-Contracts, and the Participant shall punctually pay or cause to be paid the Capital Projects Installment Debt Service, in strict conformity with the terms of the Municipal Obligations, this Contract and the Legal Documents and will faithfully observe and perform all of the conditions, covenants and requirements of this Contract and the Legal Documents including any and all supplements thereto.

(B) Extension of Payment of Municipal Obligations. Neither the District nor the Participant shall directly or indirectly extend or assent to the extension of the maturity of any of the Municipal Obligations or the time of payment of any claims for interest by the purchaser or

owner of such Municipal Obligations or by any other arrangement, and in case the maturity of any of the Municipal Obligations or the time of payment of any such claims for interest shall be extended, such Municipal Obligations or claims for interest shall not be entitled, in case of any default under the Legal Documents, to the benefits of this Contract, except subject to the prior payment in full of the principal of all of the Municipal Obligations then outstanding and of all claims for interest thereon which shall not have been so extended. Nothing in this Article shall be deemed to limit the right of the District to issue obligations or cause obligations to be issued for the purpose of refunding any outstanding Municipal Obligations, and such issuance shall not be deemed to constitute an extension of maturity of the affected Municipal Obligations.

(C) Against Encumbrances. Neither the District nor the Participant shall create, or permit the creation of, any pledge, lien, charge or other encumbrance upon the revenues and other assets pledged under this Contract while any of the Municipal Obligations are outstanding, except the pledge created by the Legal Documents and this Contract, any Additional Debt and any pledge, lien, charge or other encumbrance which is subordinate to the obligations under this Contract. Subject to this limitation, the District expressly reserves the right to enter into one or more indentures or trust agreements for any of its corporate purposes, and reserves the right to issue other obligations or cause them to be issued for such purposes.

(D) Covenants to Maintain Tax-Exempt Status of Tax-Exempt Obligations. In the event that any Tax-Exempt Obligations attributable in whole or in part, to the Participant are issued and outstanding, the Participant covenants and agrees as follows:

(1) Definitions. When used in this Section, the following terms have the following meanings:

"Bond Counsel" means Fulbright & Jaworski L.L.P.

"Bond Year" means the period of one year established in the Legal Documents, during which the Tax-Exempt Obligations are outstanding, for purposes of the Code; provided, that either the first Bond Year or the final Bond Year may be a period shorter then twelve calendar months.

"Code" means the Internal Revenue Code of 1986 as in effect on the date of issuance of the Tax-Exempt Obligations or (except as otherwise referenced herein) as it may be amended to apply to obligations issued on the date of issuance of the Tax-Exempt Obligations, together with applicable proposed, temporary and final regulations promulgated, and applicable official public guidance published, under the Code.

"Computation Date" has the meaning set forth in section 1.148-1(b) of the Tax Regulations.

"Gross Proceeds" means any proceeds as defined in section 1.148-1(b) of the Tax Regulations, and any replacement proceeds as defined in section 1.148-1(c) of the Tax Regulations, of the Tax-Exempt Obligations.

"Investment" has the meaning set forth in section 1.148-1(b) of the Tax Regulations.

"Nonpurpose Investment" means any investment property, as defined in section 148(b) of the Code, in which Gross Proceeds of Tax-Exempt Obligations are invested and that is not acquired to carry out the governmental purposes of such Tax-Exempt Obligations.

"Rebate Amount" has the meaning set forth in section 1.148-1(b) of the Tax Regulations.

"Yield" of

(1) any Investment has the meaning set forth in section 1.148-5 of the Tax Regulations; and

(2) the Tax-Exempt Obligations has the meaning set forth in section 1.148-4 of the Tax Regulations.

"Tax Regulations" means temporary and permanent regulations promulgated under or with respect to section 103 of the Code.

(2) Not to Cause Interest to Become Taxable. Neither the District nor the Participant shall use, permit the use of, or omit to use Gross Proceeds or any other amounts (or any property, the acquisition, construction or improvement of which is to be financed directly or indirectly with Gross Proceeds) in a manner that if made or omitted, respectively, would cause the interest on any of the Tax-Exempt Obligations to become includable in the gross income, as defined in section 61 of the Code, of the owner thereof for federal income tax purposes. Without limiting the generality of the foregoing, unless and until the District and the Participant receive a written opinion of Bond Counsel to the effect that failure to comply with such covenant will not adversely affect the exclusion from gross income for federal income tax purposes of the interest on any Tax-Exempt Obligation, the District and the Participant shall comply with each of the specific covenants in this Section.

(3) No Private Use or Private Payments. Except as would not cause any Tax-Exempt Obligation to become a "private activity bond" within the meaning of section 141 of the Code and the Tax Regulations and rulings thereunder, the District and the Participant shall at all times prior to the last maturity date of the Tax-Exempt Obligations:

(a) require that one or more state or local governmental agencies exclusively own, operate and possess all property the acquisition, construction or improvement of which is to be financed or refinanced directly or indirectly with Gross Proceeds of the Tax-Exempt Obligations, and not use or permit the use of such Gross Proceeds (including all contractual arrangements with terms different than those applicable to the general public) or any property acquired, constructed or improved with such Gross Proceeds in any activity carried on by any person or

entity (including the United States or any agency, department and instrumentality thereof) other than a state or local government, unless such use is solely as a member of the general public; and

(b) not permit the direct or indirect imposition of any charge or other payment on or by any person or entity who is treated as using Gross Proceeds of the Tax-Exempt Obligations or any property, the acquisition, construction or improvement of which is to be financed or refinanced directly or indirectly with such Gross Proceeds, other than taxes of general application within the boundaries of the Participant or interest earned on investments acquired with such Gross Proceeds pending application for their intended purposes.

(4) No Private Loan. Except as would not cause any Tax-Exempt Obligation to become a "private activity bond" within the meaning of section 141 of the Code and the Tax Regulations and rulings thereunder, neither the District nor the Participant shall use or permit the use of the Gross Proceeds of the Tax-Exempt Obligations to make or finance loans to any person or entity other than a state or local government. For purposes of the foregoing covenant, such Gross Proceeds are considered to be "loaned" to a person or entity if: (1) property acquired, constructed or improved with such Gross Proceeds is sold or leased to such person or entity in a transaction that creates a debt for federal income tax purposes; (2) capacity in or service from such property is committed to such person or entity under a take-or-pay, output or similar contract or arrangement; or (3) indirect benefits, or burdens and benefits of ownership, of such Gross Proceeds or any property acquired, constructed or improved with such Gross Proceeds are otherwise transferred in a transaction that is the economic equivalent of a loan.

(5) Not to Invest at Higher Yield. Except as would not cause the Tax-Exempt Obligations to become "arbitrage bonds" within the meaning of section 148 of the Code and the Tax Regulations and rulings thereunder, neither the District nor the Participant shall at any time prior to the final maturity of the Tax-Exempt Obligations directly or indirectly invest or permit the investment of Gross Proceeds in any Investment, if as a result of such investment the Yield on Investments acquired with Gross Proceeds, whether then held or previously disposed of, materially exceeds the Yield of the Tax-Exempt Obligations within the meaning of said section 148. For purposes of this paragraph, Yield on Investments shall be determined in accordance with the provisions of section 1.148-5 of the Tax Regulations (which, under certain circumstances, requires Yield to be determined on less than all such Investments).

(6) Not Federally Guaranteed. Except to the extent permitted by section 149(b) of the Code and the Tax Regulations and rulings thereunder, neither the District nor the Participant shall take or omit to take, or permit, any action that would cause any Tax-Exempt Obligations to be treated as "federally guaranteed" within the meaning of section 149(b) of the Code and the Tax Regulations and rulings thereunder.

(7) Information Report. The District shall timely file or cause to be filed any information required by section 149(e) of the Code with respect to the Tax-Exempt

Obligations with the Secretary of the Treasury on Form 8038-G or such other form and in such place as the Secretary may prescribe.

(8) Rebate. Except to the extent otherwise provided in section 148(f) of the Code and the Tax Regulations and rulings thereunder:

(a) The District shall account for all Gross Proceeds (including all receipts, expenditures and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures and investments thereof) and shall retain all records of accounting for at least six years after the day on which the last outstanding Tax-Exempt Obligation is retired. However, to the extent permitted by law, the District may commingle Gross Proceeds of Tax-Exempt Obligations with other money of the District, provided that the District separately accounts for each receipt and expenditure of Gross Proceeds and the obligations acquired therewith.

(b) Not less frequently than each Computation Date, the District shall calculate or caused to be calculated the Rebate Amount in accordance with rules set forth in section 148(f) of the Code and the Tax Regulations and rulings thereunder, which calculation the District shall maintain with its official transcript of proceedings relating to the issuance of the Tax-Exempt Obligations until six years after the final Computation Date.

(c) In order to assure the excludability of the interest on Tax-Exempt Obligations from the gross income of the owners thereof for federal income tax purposes, the District shall make rebate payments at the times and in the amounts as are or may be required by section 148(f) of the Code and the Tax Regulations and rulings thereunder, which payments shall be accompanied by Form 8038-T or such other forms and information as is or may be required by section 148(f) of the Code and the Tax Regulations and rulings thereunder; *provided, however,* that the District and the Participant agree that liability of the District to make any such payments shall be limited to amounts received by it for such purpose pursuant to this Contract and the Like-Contracts.

(d) The District shall cause the exercise of reasonable diligence to assure that no errors are made in the calculations and payments required by paragraphs (2) and (3), and if an error is made, to discover and promptly correct such error within a reasonable amount of time thereafter (and in all events within one hundred eighty (180) days after discovery of the error), including payment to the United States of any additional Rebate Amount owed to it, interest thereon, and any penalty imposed under section 1.148-3(h) of the Tax Regulations.

(9) Not to Divert Arbitrage Profits. Except to the extent permitted by section 148 of the Code and the Tax Regulations and rulings thereunder, the District shall not enter into any transaction that reduces the amount required to be paid to the United States pursuant to section 148(f) of the Code because such transaction results in a smaller

profit or a larger loss than would have resulted if the transaction had been at arm's length and the Yield of the Tax-Exempt Obligations had been irrelevant to each party.

(10) Tax-Exempt Obligations Not Hedge Bonds. The District represents that the Tax-Exempt Obligations will not be structured so as to comprise "hedge bonds" within the meaning of section 149(g) of the Code.

(11) Elections. The Participant hereby directs and authorizes any authorized representative of the District to make elections permitted or required pursuant to the provisions of the Code or the Tax Regulations, as such authorized representative of the District (after consultation with Bond Counsel) deems necessary or appropriate in connection with the Tax-Exempt Obligations.

ARTICLE 23:
NO OUTSIDE SERVICE

Neither the Delivery Entitlement nor the Participant's Surplus Water, nor any portion of either, shall be sold or delivered or otherwise disposed of by the Participant outside the boundaries of the District.

ARTICLE 24:
FAILURE TO LEVY, SET OR COLLECT TAXES, RATES AND CHARGES; ESTABLISHMENT OF COVERAGE ACCOUNT

(A) Participant's Failure to Establish Taxes, Rates and Charges; Establishing Coverage Account. If the Participant for any reason shall fail or refuse to establish or levy taxes or rates and charges sufficient to satisfy the requirements of Article 20 hereof, or if the Participant shall be precluded from establishing rates and charges at the levels required by said Article 20, then the Participant shall promptly notify the District of such fact in writing, and shall establish a Coverage Account either with the District or with a Depository designated by the Participant to the District in writing. The Participant shall deposit to the Coverage Account, from the first lawfully available funds therefor, an amount equal to one year's Coverage Factor for the amounts allocated to the Participant as the Participant's Capital Projects Installment Debt Service share under Article 16(C)(3) hereof. The Coverage Account shall be invested in accordance with applicable provisions of the Government Code, subject to any limitations established pursuant to Section 148 of the Internal Revenue Code of 1986, as amended, applicable to surplus moneys of the Participant and shall be made and remain available to the Participant and to the District as a source of funds to remedy any failure of the Participant to make its Contract Payments hereunder. The Coverage Account shall be pledged to the District for the purposes described herein, and the Participant covenants and agrees to execute such instruments as may be necessary in order to effect a pledge of amounts on deposit in the Coverage Account, acknowledging and agreeing as well to follow the advice of special tax counsel to the District in connection with the pledge and investment of the Coverage Account, as may be necessary or advisable in order to maintain the tax status of the Tax-Exempt Obligations.

(B) Release of Coverage Account. If at any time following the establishment of the Coverage Account hereunder, the Participant shall again be able to and does collect rates and

charges as required under Article 20 hereof, the Coverage Account may be released to the credit and name of the Participant for any lawful purpose thereof, upon delivery to the District of satisfactory evidence that (1) the Participant has successfully levied rates and charges for the Participant's Water Enterprise at the appropriate levels for at least one full Fiscal or Water Year since the Coverage Account was first created, and (2) the Participant is then current on all payments due under this Contract; whereupon, the District shall either release the Coverage Account to the Participant or shall direct the Depository to do so, free from the lien described herein; subject, however to any contrary requirements of rating agencies or credit providers providing security for any of the outstanding Municipal Obligations.

ARTICLE 25:
PARTICIPANT'S OBLIGATIONS SEVERAL AND NOT JOINT; STEP-UP PROVISIONS AND REIMBURSEMENT

(A) Participant Not Responsible for Failures of Other Participants; Exception. Except as provided in paragraph (B) of this Article, the Participant shall be solely responsible and liable for performance under this Contract and shall not be responsible for any failures of any Other Participant to perform such Other Participant's obligations under any other Like-Contract. The obligations to the District to make payments under this Contract and under the other Like-Contracts are expressly recognized by the District as several, and not joint, and no default on the part of one, or more, of the Other Participants shall, in and of itself, create an event of default under this Contract. The Coverage Account of the Participant, if any is established hereunder, shall not be available for any failure of any Other Participant to make payments under any of the other Like-Contracts between the District and the Other Participants, unless otherwise directed or approved in writing by the Participant.

(B) Participant's "Step-Up" Obligations. If for any reason the Participant or any Other Participant shall fail to pay its share of Capital Projects Installment Debt Service hereunder or under its Like-Contract, the amount of the resulting Debt Service Shortfall shall be paid, collectively, by all Non-Delinquent Participants. If there is more than one Delinquent Participant, the amount of the Debt Service Shortfall shall be the sum of the unpaid amounts for each Delinquent Participant. When such a Debt Service Shortfall occurs, the Participant shall be required to increase its Contract Payments for the particular Water Year by an amount equal to its pro rata share of the Debt Service Shortfall; *provided*, however, that each Other Participant who is not a Delinquent Participant shall be required by the Other Participant's Like-Contract to also contribute to the Debt Service Shortfall so that the Participant, and all of the Other Participants who are not Delinquent Participants, shall each contribute to the Debt Service Shortfall in a proportion determined by dividing each said Non-Delinquent Participant's Capital Projects Installment Debt Service share (under Article 16(C)(3) of this Contract and the Like-Contracts) by the aggregate of all the Participant's Installment Debt Service shares of all Non-Delinquent Participants, including the Participant; and *provided* further, that the Participant in no event shall be required under this paragraph to contribute to the Debt Service Shortfall by an amount in any Water Year exceeding the amount which is twenty-five percent (25%) of the share of Capital Projects Installment Debt Service allocated to the Participant under Article 16(C)(3) hereof.

(C) Repayment to Participant by Delinquent Participant(s). If payments are made by the Participant as a Non-Delinquent Participant during any Water Year under the foregoing paragraph (B), the District shall, beginning on the first Due Date when a Debt Service Shortfall is created by a Delinquent Participant, declare a default as to such Delinquent Participant under the Delinquent Participant's Like-Contract and the District shall be entitled to suspend deliveries of the Delivery Entitlement established for such Delinquent Participant under its Like-Contract; notwithstanding the foregoing, by the terms of its Like-Contract, such Delinquent Participant shall nonetheless continue to be obligated for amounts paid on its behalf by the Non-Delinquent Participants, until the Defaulting Participant has reimbursed each Non-Defaulting Participant in full for the amounts they have previously paid in as their pro rata shares of the Debt Service Shortfall. Reimbursement of amounts advanced by the Participant and the Other Participants as Non-Delinquent Participants (or, in the case of multiple Delinquent Participants, the proportionate share thereof) is immediately due and payable to the District by the responsible Delinquent Participant or Participants, and, if not so paid, and notwithstanding the provisions of Article 26(C) of the Delinquent Participant's Like-Contract, shall incur interest on the unpaid portion until paid in full at a rate per annum equal to the average rate for the County Treasury Pool, plus two percent (2%) per annum, for the month for which the County Treasury Pool rate was most recently calculated, based on a 360-day year of twelve 30-day months; *provided*, however, that payments to be made as reimbursements by a Delinquent Participant are deemed and understood to be subordinate to the obligations of the Delinquent Participant to pay the amounts allocated to the Delinquent Participant as the Delinquent Participant's share of the District's Capital Projects Installment Debt Service under Article 16(C)(3) of the Delinquent Participant's Like-Contract.

(D) "Step-Up" to Be Exhausted before Recourse to Debt Service Reserve Fund/Surety Bond. Shortfalls in Total Participant Contract Payments shall be remedied under this Article prior to the District's making any withdrawal from any debt service reserve fund established, or under the reserve surety bond posted, for the Municipal Obligations, if any are then outstanding. Drawings on or under the debt service reserve fund or reserve surety bond shall be delayed until and unless insufficient moneys are available from Non-Defaulting Participants hereunder.

(E) District's Covenant to Owners of Municipal Obligations. The District covenants and agrees to enforce the provisions of this Contract with due diligence, including, without limitation, the provisions of this Article for the benefit of the owners, from time to time, of the Municipal Obligations.

ARTICLE 26:
EVENTS OF DEFAULT; DISTRICT'S REMEDIES

(A) Events of Default by Participant. The following shall constitute events of default hereunder:

(1) The Participant shall fail to make timely payments in full of all amounts due from the Participant under the terms of this Contract; or

(2) The Participant shall fail to establish or collect, or cause to be collected, all rates and charges, and other sums, necessary to enable Participant to make the

payments required hereunder, as provided in Article 20 hereof, and, following thirty (30) days written notice from the District to the Participant, the Participant shall fail to remedy such failure to the satisfaction of the District; or

(3) The Participant shall fail to perform any other obligation or covenant hereunder and shall fail to remedy such failure to the satisfaction of the District within thirty (30) days following the Participant's receipt of written notice from the District, or for such additional time as is reasonably required, in the sole discretion of the District, to correct the same; or

(4) The Participant shall file any petition or institute any proceedings under any act or acts, State or federal, dealing with or relating to the subject of bankruptcy or insolvency or under any amendments to such act or acts, either as a bankrupt or as an insolvent or as a debtor or in any similar capacity, wherein or whereby the Participant seeks or prays to be adjudicated a bankrupt or is to be discharged from any or all of its debts or obligations, or offers a reorganization of its obligations for the benefit of creditors, or asks for similar relief.

(B) District's Remedies. Upon the occurrence of an event of default hereunder, the District shall be entitled to protect and enforce the rights vested in the District by this Contract by appropriate judicial proceedings as the District may deem most effective or convenient, either in equity or law. The use by the District of any remedy specified herein for the enforcement of this Contract is not exclusive and shall not deprive the District of, or limit the application of, any other remedy provided hereunder or by law or by equity. Without limiting the generality of the foregoing, the District shall be entitled to pursue any of the following remedies:

(1) The District may suspend the delivery to the Participant of water hereunder during the period when the Participant is delinquent in its payments or other obligations to the District hereunder, but only following notice to the Participant and the imposition of such remedy following a formal hearing conducted by the Board of Supervisors, unless such failure to pay is as described in subparagraph (5) below;

(2) The District may compel the Participant, or its governing board, by action in any court of competent jurisdiction to account to the District as the trustee of an express trust;

(3) The District may pursue an action in any court of competent jurisdiction to enjoin any acts or things which may be unlawful or in violation of the rights of the District hereunder; and

(4) The District may proceed in mandamus or other suit, action or proceeding at law or in equity to enforce its rights against the Participant (and its governing board, officers, agents and employees) and to compel the Participant to perform and carry out its duties and obligations under the law and its covenants and obligations as set forth herein.

(5) If the Participant shall fail to make timely payments in full of all amounts due from the Participant under the terms of this Contract, and if, as a result, payments are made by any Non-Delinquent Participant during any Water Year under Article 25(B)

hereof, then the District shall, beginning on the first Due Date, declare a default as to the Participant and the District shall be entitled to suspend deliveries of the Delivery Entitlement without referring the matter to the Board of Supervisors for a hearing; notwithstanding the foregoing, by the terms of this Contract, the Participant shall nonetheless continue to be obligated for amounts paid on its behalf by the Non-Delinquent Participants, until such time as the Participant has reimbursed each Non-Defaulting Participant in full. Said amounts advanced by the Non-Delinquent Participants are immediately due and payable by the Participant, and, if not so paid, and notwithstanding the provisions of paragraph (C) of this Article, shall incur interest on the unpaid amounts until paid in full at a rate per annum equal to the average rate for the County Treasury Pool, plus two percent (2%) per annum, for the month for which the County Treasury Pool rate was most recently calculated, based on a 360-day year of twelve 30-day months; *provided*, however, that payments to be made as reimbursements under this paragraph are deemed and understood to be subordinate to the obligations of the Participant to pay the amounts allocated to the Participant as the Participant's share of the District's Capital Projects Installment Debt Service under Article 16(C)(3) of this Contract.

(C) Rate of Interest. Upon each charge to be paid by the Participant to the District pursuant to this Contract which remains unpaid after the time the same shall have become due and payable, interest shall accrue at an annual rate equal to that earned by the County Treasury Pool as provided in California Government Code at Section 16480 *et seq.*, calculated monthly on the amount of such delinquent payment from time to time after the due date when the same becomes due until paid, and the Participant hereby agrees to pay such interest; *provided*, that no interest shall be charged to or paid by the Participant unless such delinquency continues for more than thirty (30) days. The Participant hereby agrees to pay such interest to the District, whether or not the District shall pursue any of the remedies specified in this Article. In no event shall said default interest be compounded.

ARTICLE 27:
CHANGES IN ORGANIZATION

The Participant shall furnish the District with maps showing the boundaries of the Participant and showing the service area or areas of the Participant's water distribution system. Throughout the term of this Contract, the Participant shall promptly notify the District of any changes in said boundaries and in said service area or areas occasioned either by addition or by removal of territory. So long as there are outstanding any Municipal Obligations, the Participant shall take no action to remove any lands from the Participant or its service areas without the prior written consent of the District.

ARTICLE 28:
ADDITIONAL CAPITAL PROJECTS

(A) Required Additional Projects. At any time, and from time to time, without the consent of the Participant or any Other Participant, the District shall have the authority to undertake the construction or equipping of any Required Additional Project, *provided* that,

before a Required Additional Project may be commenced by the District pursuant to direction or order of a competent Governmental Authority, the Participant and the Other Participants shall be afforded notice by the District of said direction or order and each shall have the opportunity to oppose the imposition of such requirement before a court of competent jurisdiction. Only if a final judgment is thereafter rendered in favor of such direction or order of the said Governmental Authority, or if no such opposition is filed, shall the directed or ordered project be undertaken by the District. It is the intention of the parties hereto that the District shall, as and when necessary, be deemed to assign its rights to pursue opposition to the creation of any obligations hereunder by a Governmental Authority to the Participant and/or the Other Participants as third party beneficiaries hereof and real parties in interest. The District shall allocate the costs of each Additional Capital Project among All Participants pro rata according to the Delivery Entitlement Share and the Other Delivery Entitlement Shares, respectively, unless the Commission shall determine that some other manner of cost allocation is more equitable in which case the Commission's determination shall be final.

(B) Approved Additional Projects. An Approved Additional Project may be undertaken at any time, and from time to time, by the District in accordance with the terms of the specific agreements between the District and the Participant and the Other Participants, *provided* that, funding for an Approved Additional Project will not be from Capital Reserves but from a new and separate capital fund established by the District as a part of the agreement establishing each Approved Additional Project.

(C) Emergency Projects. Emergency Projects, including emergency repairs to the Nacimiento Project, may, notwithstanding the above, be made by the District without notice to, or consultation with, the Participant or the Nacimiento Project Commission or with any Other Participant. The District shall then allocate the costs of each Emergency Project among All Participants pro rata according to the Delivery Entitlement Share and the Other Delivery Entitlement Shares, respectively, unless the Commission shall determine that some other manner of cost allocation is more equitable, in which case the Commission's determination shall be final.

ARTICLE 29:
USE OF RESERVE WATER

The District may use the District's Reserve Water as follows:

(A) Priorities. The District shall use the District's Reserve Water in the following order of priority:

(1) For the alleviation of any permanent water shortage described in Article 14(B) hereof;

(2) For the alleviation of any temporary water shortage described in Article 14(A) hereof;

(3) For the satisfaction of the District's obligations to each of the Reserve Water Customers;

(4) For adding to and supplementing the Delivery Entitlements for the Participant and/or the Other Delivery Entitlements for the Other Participants who are Initial Participants as provided for by Article 6(D) herein;

(5) For additional and New Participants (defined in paragraph (C) below) who were not Initial Participants;

(6) For such other purposes as the District deems useful and beneficial to the Nacimiento Project.

(B) District's Sale of Reserve Water/Reserved Capacity by Amending Participant's Contract and/or the Like-Contracts of Other Participants who were Initial Participants. In the event that the Participant, or any Other Participant who was an Initial Participant, desires to purchase additional capacity in the Nacimiento Facilities and additional rights to have a portion of Reserve Water conveyed and delivered to the Participant and to the extent that the amount of Reserve Water and Reserved Capacity is sufficient to do so, the District and the Participant may amend this Contract (or, in the case of an Other Participant, the Like-Contract), *provided* that the District shall not enter into any such amendment which provides terms more favorable than those presently existing in this Contract, and in each Like-Contract, and *provided* that the Participant shall, in addition to the payments required under the Like Contract, pay to the District a fee (the "Purchase of Reserve Water Delivery Entitlement and Reserved Capacity Fee") amounting to a sum which will reasonably compensate the District for the Participant's Unit Percentage Share of the Total Nacimiento Project Construction Costs plus the costs of any Additional Capital Projects which are necessary or convenient for the conveyance and/or delivery of the Delivery Entitlement. The District shall apply the Purchase of Reserve Water Delivery Entitlement and Reserved Capacity Fee as a credit to the obligations of the Participant and the Other Participants based on their respective Unit Percentage Share. However, the District shall not so amend this Contract without having first provided sixty (60) days written notice to each Other Participant of the fact that the Participant has applied to the District for such an amendment to this Contract and providing each such Other Participant an opportunity to likewise apply for an additional Delivery Entitlement of Reserve Water/Reserved Capacity. In the event that Other Participants shall also apply to the District at the time of Participant's application for additional Delivery Entitlements of Reserve Water, then to the extent that there is not sufficient Reserve Water or Reserved Capacity to satisfy all of the applications for additional Delivery Entitlements, the Participant and all Other Participants applying for additional Delivery Entitlements shall be granted additional Delivery Entitlements in proportion to their respective Delivery Entitlements existing at the time of the applications.

(C) District's Contract(s) for All or a Portion of Reserve Water and Reserved Capacity by Execution of Like-Contracts with New Participants who were Not Initial Participants. In the event that an entity desires to become a New Participant, acquiring rights to capacity in the Nacimiento Facilities and rights to have conveyed and delivered to the New Participant a portion of Reserve Water, and to the extent that the amount of Reserve Water and the District's Reserved Capacity is sufficient to do so, then the District, after consulting with the Nacimiento Project Commission, and after receiving the written approval from that portion of All Participants holding, in the aggregate, at least fifty-five percent (55%) of the total of all delivery entitlements to Nacimiento Project Water existing at that time, may enter into a Like-

Contract with such New Participant, *provided* that said New Participant shall, in addition to the payments required under the Like-Contract, pay to the District a Purchase of Reserve Water Delivery Entitlement and Reserved Capacity Fee as described above herein. However, notwithstanding the foregoing sentence, each entity listed on Exhibit B hereto shall have the right to become a New Participant, and the District may enter into a Like-Contract with such New Participant, on any day after the last day of the Design Phase without consultation with the Commission or written approval from any portion of All Participants, *provided,* that said New Participant shall, in addition to the payments required under its Like-Contract, pay to the District a Purchase of Reserve Water Delivery Entitlement and Reserved Capacity Fee as described above herein. The District shall apply the Purchase of Reserve Water Delivery Entitlement and Reserved Capacity Fee received from any New Participant as a proportionate credit to the obligations of the Participant and the Other Participants (excluding the New Participant) based on the Participant's and the Other Participants' Unit Percentage Shares. Notwithstanding the foregoing, or any other provision of this Contract, the District shall not execute a Like-Contract with a New Participant if such execution would result in any of the Tax-Exempt Obligations being treated as an obligation not described in Section 103(a) of the Internal Revenue Code of 1986, as amended, by reason of classification of such Tax-Exempt Obligation as a "private activity bond" within the meaning of Section 141 of said Code.

(D) District's Sale of Reserve Water to Reserve Water Customers.

(1) The District may enter into an agreement to deliver all or a part of Reserve Water to Reserve Water Customers under the following conditions:

(a) There is Reserve Water and Reserved Capacity available in any year after application of the priorities set forth above herein;

(b) The agreement cannot be for a period of time in excess of five years; and

(c) The price charged by the District to any Reserve Water Customer for the delivery of said Reserve Water may not be less than the greater of: (i) rates that the District would charge for Surplus Water under Article 12 of this Contract delivered to that Participant geographically nearest the place where the Reserve Water Customer takes delivery of Reserve Water; or, (ii) the charges resulting from the application of the provisions of Article 30(A) hereof.

(2) The District's revenues from an agreement for the temporary delivery of Reserve Water to Reserve Water Customers shall be applied by the District to effect a credit under Article 17(B)(3) hereof ("Credit for Participant's Portion of Any of District's Surplus/Wheeling/District Customer Revenues").

ARTICLE 30:
USE OF RESERVED CAPACITY

The District shall use its best efforts to temporarily lease the Reserved Capacity of the Nacimiento Facilities.

(A) District's Use of Capacity in the Nacimiento Facilities for the Delivery of Reserve Water through the Nacimiento Facilities to a Reserve Water Customer. If at any time during the term of this Contract, the District conveys Reserve Water through any Unit to a Reserve Water Customer, the Reserve Water Customer shall be required to pay the District for such conveyance and delivery service in a manner and at prices which will return to the District the largest net revenue practicable, but in no event shall such conveyance be effected at charges less than those applicable to the conveyance of Delivery Entitlement through the same Unit or Units. In determining the appropriate charges for water conveyed and delivered for a Reserve Water Customer, the District shall take into account the particular Unit or Units through which conveyance of such water occurs, shall compare the Operation and Maintenance Costs and Capital Projects Installment Debt Service apportionable to such Unit or Units with Nacimiento Project Costs, and shall further compare the amount of water conveyed for Reserve Water Customers through such Unit or Units with the amount of Nacimiento Project Water conveyed for the Participant and for the Other Participants through such Unit or Units for the same period of time.

(B) Wheeling of Water. If at any time during the term of this Contract, the District conveys water to any Wheeling Customer, said Wheeling Customer shall be required to pay the District for such conveyance and delivery service in a manner and at prices which will return to the District the largest net revenue practicable, but in no event shall such conveyance be effected at charges less than those applicable to the conveyance of Delivery Entitlement through the same Unit or Units. In determining the appropriate charges for water conveyed and delivered for a Wheeling Customer, the District shall take into account the particular Unit or Units through which conveyance of such water occurs, shall compare the Operation and Maintenance Costs and Capital Projects Installment Debt Service apportionable to such Unit or Units with Nacimiento Project Costs, and shall further compare the amount of water conveyed for Wheeling Customers through such Unit or Units with the amount of Nacimiento Project Water conveyed for the Participant and for the Other Participants through such Unit or Units for the same period of time. The District hereby covenants and agrees not to enter into any contract with a Wheeling Customer for the conveyance of water with a term to exceed one (1) year.

ARTICLE 31:
UNIFORM CONTRACTS

Nacimiento Project Water Delivery Entitlement Contracts executed by the District with the Other Participants (or with any New Participant) shall be substantially uniform with respect to basic terms and conditions when compared with this Contract, but shall provide for different dates and quantities of water to be conveyed and delivered, the places of water delivery, each delivery entitlement share and each unit percentage share and the payment amounts for each participant.

ARTICLE 32:
AMENDMENTS TO CONTRACT

This Contract shall be subject to amendment at any time by mutual agreement of the parties hereto, except insofar as any proposed amendments are in any way contrary to applicable

law, or would have a material adverse effect upon the owners of any of the Municipal Obligations. As a condition to any amendment to this Contract or to the Like-Contracts with the Other Participants, the District shall first have received written confirmation from the rating agency or agencies then providing a rating for the Municipal Obligations, to the effect that the proposed amendments will not adversely affect the rating of the Municipal Obligations and, in the event that the Municipal Obligations, or any portion thereof, shall be covered by municipal bond insurance, the District shall have received prior written consent to such proposed amendments from the provider of such bond insurance. Amendments to this Contract and to the Like Contracts of the Other Participants shall occur only after the written and unanimous consent of the District, the Participant and all Other Participants, except, that the following Additional Projects may be effected without said unanimous consent and upon the following conditions:

(A) Approved Additional Projects. Subject to the provisions of Article 28 hereof, and upon the request of the Participant or of any Other Participant, the District may enter into an amendment of this Contract, and/or of Like-Contracts, in order to undertake the acquisition and construction of an Approved Additional Project; *provided*, however, the Participant and/or Other Participants desiring such Project shall first demonstrate that said Approved Additional Project will be economically feasible with the financial support of only the Participant and/or the Other Participants participating in said Approved Additional Project.

(B) Required Additional Project/Emergency Project. The undertaking of a Required Additional Project or of any Emergency Project by the District shall not require the consent of the Participant or of any Other Participant nor the amendment of this Contract or of any Like-Contract(s).

(C) Approval of Amendments by Participant. The Participant covenants and agrees to act in good faith to approve or reject any proposed amendments hereto within a reasonable period of time. The failure to either approve or reject any such proposed amendment within sixty (60) days from the date of adoption by the Board of a resolution approving such proposed amendment shall constitute a lack of good faith.

ARTICLE 33:
ESTABLISHMENT OF NACIMIENTO PROJECT COMMISSION

In connection with its approval of this Contract, the Participant has appointed a representative of the Participant to sit on the Nacimiento Project Commission. The District covenants and agrees to call a first organizational meeting of the Commission within thirty (30) days of the Effective Date, in accordance with law and, particularly, the provisions of the Ralph M. Brown Act. The Commission shall meet at such intervals and at such places as it shall determine. The total number of votes that may be cast on any issue or proposition considered by the Commission shall be the sum of the number of Commissioners. The Commission member representing the District shall be entitled to vote in proportion to the number of Commissioners. The Commissioners representing the Participant and the Other Participants shall share the remaining votes in proportion to the Delivery Entitlement of the Participant and of each of the Other Participants.

The purpose of the Commission shall be to review and approve all substantive matters pertaining to the construction and operations of the Nacimiento Facilities, including the annual budget; provided, however, that the Commission shall have no authority to contract, employ persons, or make expenditures. The Board of Supervisors may approve, alter, or return any said approval of the Commission. Furthermore, in every case that the Board alters or returns to the Commission any item or proposition approved by the Commission, the Board shall set forth in writing its findings that caused the Board to alter or return said item or proposition and shall do so only after holding a public hearing at which time the Commissioners shall have the right to appear and address the Board of Supervisors.

ARTICLE 34:
OPINIONS AND DETERMINATIONS; GOOD FAITH

Where the terms of this Contract provide for action to be based upon opinion, judgment, approval, review or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious, or unreasonable.

ARTICLE 35:
WAIVER OF CONTRACT RIGHTS

Any waiver at any time by either party to this Contract of the party's rights with respect to a default or any other matter arising in connection with this Contract shall not be deemed to be a waiver with respect to any other default or matter.

ARTICLE 36:
NOTICES

All notices that are required either expressly or by implication to be given by any party to the other under this Contract shall be signed for the District and for the Participant by such officers as they may, from time to time, authorize to so act. All such notices shall be deemed to have been given and delivered if delivered personally or if enclosed in a properly addressed envelope and deposited with the United States Postal Service for delivery by registered or certified mail. Unless and until formally notified otherwise, all notices shall be addressed to the parties as follows:

To the Participant: Atascadero Mutual Water Company
P.O. Box 6075
5005 El Camino Real
Atascadero, California 93423
Attention: Chief Executive Officer

To the District: Department of Public Works
County of San Luis Obispo
County Government Center
San Luis Obispo, CA 93408
Attention: Director of Public Works

ARTICLE 37:
ASSIGNMENT

The provisions of this Contract shall apply to and bind the successors and assigns of the respective parties, but no assignment or transfer of this Contract, or any part hereof or interest herein, shall be valid until and unless approved by the District. The District shall not approve any such assignment or transfer to any person or entity that is not one or more of the Initial Participants, or a then-existing New Participant, unless and until the proposed assignment or transfer of this Contract has been offered to and refused in writing by all said Participants. The offer of any such assignment or transfer of this Contract shall be on the same basis to all Participants and if more than one of the said Participants desires to accept the offer, this Contract or portion thereof to be assigned or transferred shall be prorated among them in proportion to their respective unit percentage share in the facilities involved in the assignment or transfer. The foregoing notwithstanding, no assignment or transfer of this Contract or any part hereof or interest herein shall be valid until such time as the District has received assurances from each rating agency then rating the Municipal Obligations, to the effect that such assignment or transfer will not adversely affect the rating on the Municipal Obligations, and, so long as any Municipal Obligations are then being insured by a municipal bond insurance company, until such time as the District has received the written consent from such bond insurer as to such assignment or transfer. The Participant understands and acknowledges that the District may pledge amounts received and to be received hereunder and under the other Like-Contracts to a financial institution and/or Joint Exercise of Powers Authority as further support for the District's obligations under the Municipal Obligations.

ARTICLE 38:
INSPECTION OF BOOKS AND RECORDS

The authorized officers of the Participant shall have full and free access at all reasonable times to the account books and official records of the District insofar as the same pertain to the matters and services provided for in this Contract, with the right at any time during regular business hours of the District to make copies thereof at the Participant's expense, and the authorized officers of the District shall have similar rights in respect to the account books and records of the Participant for its Water Enterprise.

ARTICLE 39:
SEVERABILITY

Any provision of this Contract that is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition,

unenforceability or nonauthorization without invalidating the remaining provisions hereof affecting the validity, enforceability or legality of such provision in any other jurisdiction.

ARTICLE 40:
WATER RIGHTS

The parties hereto acknowledge and agree that this Contract is an agreement for service, and only contractual rights are created by this Contract. This Contract does not create an entitlement to nor does it convey to the Participant any property right or interest in the Master Water Contract. Except as to rights associated with imported water discussed in this Article, no provision of this Contract shall be considered, interpreted or applied in any fashion to derogate or otherwise diminish, reduce or detrimentally affect, in any fashion, any parties' existing or subsequently developed or acquired Water Rights. This Contract shall not be considered, interpreted nor applied in any fashion to result in any relinquishment or adjustment of any such Water Rights. In particular, no provision of this Contract shall be considered, interpreted or applied in any fashion to diminish, reduce or detrimentally affect, in any fashion, any party's rights pursuant to Water Code Section 1005.1 or Section 1005.2. Notwithstanding anything to the contrary set forth herein, the parties to this Contract acknowledge that the water delivered to the Participant pursuant to this Contract constitutes "imported water." The District agrees to support any effort of the Participant to establish that the water delivered to the Participant pursuant to this Contract constitutes "imported water." The parties further acknowledge that any rights to water which may arise from the importation and/or use by the Participant of the water delivered pursuant to this Contract (including, but not limited to the use, storage, capture, recapture and/or reuse of such water) are held exclusively by the Participant and no other party.

ARTICLE 41:
GOVERNING LAW

This contract shall be interpreted, governed and enforced in accordance with the laws of the State of California applicable to contracts made and performed in such State.

ARTICLE 42:
VALIDATION

Either the District, the Participant or any Other Participant may file and diligently prosecute to a final decree in a court of competent jurisdiction a proceeding in mandamus or other appropriate proceeding or action for the judicial examination, approval, and confirmation of the proceedings had for the organization of the District and for the participation of the Participant in the Nacimiento Facilities hereunder, or for the validation of the agreement(s) which is the basis for the Municipal Obligations, or any of them, or the proceedings of the governing body of the Participant leading up to and including the making of this Contract and the validity of the provisions thereof and hereof.

ARTICLE 43:
COUNTERPARTS

This Contract may be executed in several counterparts, each of which shall be regarded as an original and all of which shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the date first above written.

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By _____
Chairperson, Board of Supervisors

APPROVED AS TO FORM:
COUNTY COUNSEL:

By _____
Deputy County Counsel
8/6/04

ATTEST:
JULIE L. RODEWALD, COUNTY CLERK

By _____
Deputy County Clerk

ATASCADERO MUTUAL WATER COMPANY

By _____ - President
Authorized Representative

APPROVED AS TO FORM:
CITY ATTORNEY

By _____

By _____
Deputy City Clerk

ATTEST:
~~**CITY CLERK**~~ CORPORATE SECRETARY

By Rosemary Y. Marsango
~~Deputy City Clerk~~
Corporate Secretary

ARTICLE 43:
COUNTERPARTS

This Contract may be executed in several counterparts, each of which shall be regarded as an original and all of which shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the date first above written.

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By _____
Chairperson, Board of Supervisors

APPROVED AS TO FORM:
COUNTY COUNSEL:

By _____
Deputy County Counsel

ATTEST:
JULIE L. RODEWALD, COUNTY CLERK

By _____
Deputy County Clerk

ATASCADERO MUTUAL WATER COMPANY

By _____
Authorized Representative

APPROVED AS TO FORM:
GDE ~~CITY~~ **ATTORNEY**

ELLIS & COLLINS
By _____
Samuel D. Ellis, Esq.

By _____
Deputy City Clerk

ATTEST:
CITY CLERK

By _____
Deputy City Clerk

EXHIBIT A

UNIT DESCRIPTIONS

Unit A - Lake Nacimiento Intake and Pump Station to Camp Roberts West Property Line: Shall consist of the raw water intake structure including multiport tower, pumps, piping, surge control facilities, access road, screens, gates, valves, controls, electrical service, instrumentation, grounds, fencing, and appurtenances; and pipeline from the intake to the Camp Roberts west property line, including road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances

Unit A1 - Camp Roberts West Property Line to Camp Roberts Tank and Pump Station Inlet: Shall consist of the pipeline from the Camp Roberts west property line to the inlet connection of the Camp Roberts Pump Station including road crossings, the Nacimiento River crossing, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances; and Camp Roberts Tank including piping and valves, connections to the main pipeline, controls, instrumentation, corrosion control and coatings, access roads, grounds, fencing, and appurtenances.

Unit B – Camp Roberts Pump Station: Shall consist of the Camp Roberts Pump Station from the inlet connection to the discharge connection, including pumps, piping, connections to the main pipeline, surge control facilities, access road, valves, controls, instrumentation, grounds, fencing, and appurtenances.

Unit C – Camp Roberts Pump Station Discharge to Monterey Rd / Wellsona: Shall consist of the pipeline from the Camp Roberts Pump Station discharge connection to the intersection of Old Highway 101 and Monterey Road, including the highway crossing, road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit C1 – Monterey Rd / Wellsona to Paso Robles Turnout: Shall consist of the pipeline from the intersection of Old Highway 101 and Monterey Road to the mainline connection for the Paso Robles Turnout, including the Salinas River crossing, railroad crossing, road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit D – Paso Robles Turnout to Templeton CSD Turnout: Shall consist of the pipeline from the mainline connection for the Paso Robles Turnout to the mainline connection for the Templeton CSD turnout, including surge control, microtunneling through Santa Ysabel Ranch, road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit E – Templeton CSD Turnout to Atascadero MWC Turnout: Shall consist of the pipeline from the mainline connection for the Templeton CSD turnout to the mainline connection for the Atascadero MWC turnout, including road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit F – Atascadero MWC Turnout to Rocky Canyon Tank Inlet: Shall consist of the pipeline from the mainline connection for the Atascadero MWC turnout to the inlet flange of the Rocky Canyon Tank, including road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit F1 – Rocky Canyon Tank: Shall consist of the Rocky Canyon Tank from the inlet flange of the tank through to the inlet connection to the Rocky Canyon Pump Station, including piping and valves, connections to the main pipeline, controls, instrumentation, corrosion control and coatings, access roads, grounds, fencing, and appurtenances.

Unit F2 – Rocky Canyon Pump Station: Shall consist of the Rocky Canyon Pump Station from the pump station inlet connection through to the discharge connection, including pumps, piping, connections to the main pipeline, surge control facilities, access road, valves, controls, instrumentation, grounds, fencing, and appurtenances.

Unit G – Rocky Canyon Pump Station Discharge to Route 58/Maria Avenue: Shall consist of the pipeline from the discharge connection of the Rocky Canyon Pump Station to the intersection of Maria Avenue and Route 58 in Santa Margarita, including a Salinas River Crossing, road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit G1 – Route 58/Maria Avenue to Cuesta Tank Inlet: Shall consist of the pipeline from the intersection of Maria Avenue and Route 58 in Santa Margarita to the inlet flange of the Cuesta Tunnel Tank, including railroad and road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit G2 – Cuesta Tunnel Tank: Shall consist of the Cuesta Tunnel Tank from the inlet flange of the tank through the north portal inlet flange of the existing Cuesta Tunnel pipeline, including piping and valves, connections to the main pipeline, controls, instrumentation, corrosion control and coatings, access roads, grounds, fencing, and appurtenances.

Unit H – Cuesta Tunnel: Shall consist of the existing Nacimiento Pipeline in Cuesta Tunnel from the existing north portal inlet flange through the south portal outlet flange, including controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit H1 – Cuesta Tunnel to San Luis Obispo WTP: Shall consist of the pipeline from the south portal outlet flange of the Nacimiento Pipeline in Cuesta Tunnel to the San Luis Obispo City Water Treatment Plant on Stenner Creek Road, including railroad crossings, road crossings, controls, instrumentation, air release structures, blowoffs, valves, vaults, corrosion control, and appurtenances.

Unit T6 – Atascadero Mutual Water Company Turnout. Shall consist of the piping, instrumentation and appurtenant facilities connecting the Nacimiento Facilities to the Atascadero Mutual Water Company water system facilities along Templeton Road approximately 5,500 feet Southeast of the intersection with Vineyard Street.

EXHIBIT B

ENVIRONMENTAL IMPACT REPORT

ENTITIES

California Army National Guard

County of San Luis Obispo Service Area No. 10A, 22 and 23

Edna Valley Mutual Water Company

Fiero Lane Water Company

Lewis C. Pollard Family Trust

Morrow Rock Mutual Water Company

San Miguel Community Services District

Santa Margarita Ranch Mutual Water Company

NWP Delivery Entitlement
Contract Amendment No. 1
24 May 2005
Attachment MMC

RESOLUTION NO. 2005-0401

RESOLUTION OF THE BOARD OF DIRECTORS, IN CONNECTION WITH THE FINANCING OF THE NACIMIENTO WATER PROJECT DESIGN PHASE AND DECLARING ITS INTENT TO REIMBURSE CERTAIN EXPENDITURES FROM BOND ANTICIPATION NOTE PROCEEDS

WHEREAS, the Atascadero Mutual Water Company ("Company") has heretofore entered into a Nacimeinto Project Water Delivery Entitlement Contract (the "Contract") with the San Luis Obispo County Flood Control and Water Conservation District (the "District"), pursuant to which, among other things, the Company has agreed to pay its pro rata share of the costs of construction of a water pipeline from Lake Nacimiento to the Company (the "Project"); and

WHEREAS, the District now desires to commence the design and engineering phase of the Project (the "Design Phase") and the Company and the District wish to provide for the advancement of funds, from time to time, by the Company to pay the Company's pro rata share of the Design Phase costs (the "Reimbursable Expenditures"); and

WHEREAS, the District has advised the Company that it intends to cause to be issued certain bond anticipation notes (the "Notes") or revenue bonds (the "Bonds") to reimburse the Company among others for the Reimbursable Expenditures and to pay for additional Design Phase and/or Project expenditures; and

WHEREAS, Section 1.150-2 of the Treasury Regulations requires the Board to declare its reasonable official intent to reimburse such Reimbursable Expenditures for the Project with proceeds of such Notes which the Company reasonably expects will be issued to finance the costs of the Design Phase incurred prior to the date of issuance of the Notes and that certain of the proceeds of such Notes or Bonds (collectively, the "Obligations") in the amount of not to exceed $ 4,708,000 will be used to reimburse the Reimbursable Expenditures;

NOW, THEREFORE, BE IT HEREBY RESOLVED, DETERMINED AND ORDERED BY THE BOARD OF DIRECTORS OF ATASCADERO MUTUAL WATER COMPANY, AS FOLLOWS:

Section 1. Recitals. The foregoing recitals are true and correct.

Section 2. Intention to Reimburse. The Board hereby declares its reasonable official intention to use a portion of the proceeds of the Notes to reimburse itself for the Reimbursable Expenditures.

Atascadero MWC

File A.7.3

Ref: Contract Amendment No. 1 (a.k.a MOU)

Section 3. Intention to Issue Obligations. The District presently intends and reasonably expects to issue or cause to be issued the Obligations on behalf of the Company within 18 months of the date of the expenditure of moneys on the Design Phase or the date upon which the Project is placed in service or abandoned, whichever is later (but in no event more than 3 years after the date of the original expenditure of such moneys), and to allocate an amount of not to exceed $ 4,708,000 of the proceeds thereof to the Reimbursable Expenditures in connection with the Project. All of the Reimbursable Expenditures covered by this Resolution were made not earlier than 60 days prior to the date of this Resolution.

Section 4. Compliance with Treasury Regulations. This Resolution is adopted for purposes of establishing compliance with the requirements of Section 1.150-2 of the Treasury Regulations.

Section 5. Official Actions. The President, the Treasurer and the Secretary of the Company (the "Authorized Representatives") are hereby authorized and directed to take all actions and do all things necessary or desirable hereunder in connection with the financing of the Design Phase, including but not limited to the execution and delivery of any and all related agreements, filings, instruments and other documents which they, or any of them, may deem necessary or desirable and not inconsistent with the purposes of this Resolution.

Section 6. Effective Date. This Resolution shall take effect immediately upon its passage and adoption.

PASSED AND ADOPTED by the Board of Directors of Atascadero Mutual Water Company, at a [regular] meeting of said Board of Directors held on April 13, 2005, by the following vote:

AYES: 5

NOES: 0

ABSENT: 0

Title: President

(SEAL)

ATTEST:

Rosemary V. Navarro

[Secretary of Atascadero Mutual Water Company]

SECRETARY'S CERTIFICATE

I, Rosemary V. Marsango, Secretary of the Board of Directors of Atascadero Mutual Water Company, hereby certify as follows:

The foregoing is a full, true and correct copy of a resolution duly adopted at a [regular/special] meeting of the Board of Directors of Atascadero Mutual Water Company, duly and regularly and legally held at the regular meeting place thereof on April 13, 2005, of which meeting all of the members of the Board of Directors of Atascadero Mutual Water Company had due notice and at which a quorum was present.

An agenda of said meeting was posted at least seventy-two (72) hours before said meeting at 5005 El Camino Real, Atascadero, California, a location freely accessible to members of the public, and a brief general description of said resolution appeared on said agenda.

I have carefully compared the same with the original minutes of said meeting on file and of record in my office and the foregoing is a full, true and correct copy of the original resolution adopted at said meeting and entered in said minutes.

Said resolution has not been amended, modified or rescinded since the date of its adoption, and the same is now in full force and effect.

Dated: April 13, 2005.

Rosemary V. Marsango

Secretary of the Board of Directors of
Atascadero Mutual Water Company

[Seal]

MEMORANDUM OF UNDERSTANDING

(First Amendment to Nacimiento Project Water Delivery Entitlement Contract)

This Memorandum of Understanding (the "MOU") is entered into by and between the San Luis Obispo County Flood Control and Water Conservation District, a Flood Control and Water Conservation District duly established and existing under the San Luis Obispo County Flood Control and Water Conservation Act, Act 7205 of the Uncodified Acts of the California Water Code (the "District"), and Atascadero Mutual Water Company, a California mutual water company (the "Participant"), is undertaken with regard to the following facts:

RECITALS:

WHEREAS, the Participant has contracted with the District pursuant to that certain Nacimiento Project Water Delivery Entitlement Contract, approved by the District on August 17, 2004 (as originally executed, the "Original Contract" and as amended hereby, the "Contract") regarding the financing, construction and operation of a water pipeline project intended to reach from Lake Nacimiento to the Participant (the "Project") for the delivery of additional water for the use and benefit of the lands and inhabitants served by the Participant; and

WHEREAS, the Contract requires the Participant to make semiannual payments with respect to the Participant's allocation of costs accumulated in connection with the financing and later operation of the Project;

WHEREAS, notwithstanding such payment schedule in the Contract, the Participant and the District desire to follow a separate payment schedule with respect to the initial financing of the preliminary, planning and design costs of the Project;

WHEREAS, the Participant and the District now wish to use this MOU to effect an amendment to the Contract to reflect an additional option available to the Participant for its share of such costs; and

WHEREAS, in compliance with Article 32 of the Contract, all Other Participants (as defined in the Contract) are also being provided with a Memorandum of Understanding (First Amendment to Nacimiento Project Water Delivery Entitlement Contract) (each, an "Other MOU"), all of which shall be executed by the respective Other Participants as a condition to the effectiveness hereof;

NOW, THEREFORE, be it agreed and understood by the parties hereto, as follows:

Section 1. Recitals; Defined Terms. The foregoing recitals are true and correct. Capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Contract.

Section 2. Amended and Added Definitions. The following definitions shall replace the definitions of "Design Phase" and "Construction Phase" in the Original Contract:

Atascadero mwc Contract
Ref: BOS Mtg. 5.24.05, Resolution No. 2005-143

"Design Phase" shall mean that period of time preceding the Construction Phase during which the design, engineering and/or planning for the construction of the Nacimiento Project are being undertaken. The Design Phase shall conclude with the opening of the first group of Construction Bids resulting in the award of a construction contract for all, or a sub-phase of, the Nacimiento Project. Any costs incurred for the design, engineering, and/or planning of the Nacimiento Project after the Design Phase still constitute part of the Nacimiento Project Construction Costs.

"Construction Phase" shall mean the period of time following the opening of the first group of Construction Bids resulting in the award of a construction contract for all, or a sub-phase of, the Nacimiento Project. During the Construction Phase, the District shall apply the proceeds of the Municipal Obligations to pay the Nacimiento Project Costs.

The following new definitions shall be added to the Original Contract:

"Cash Contribution" shall mean the cash payment(s) made to the District by the Participant towards its *pro rata* share of Design Phase Costs pursuant to Article 2.5. Proceeds of Notes do not constitute the payment of a Cash Contribution.

"Design Phase Costs" shall mean the costs and expenses incurred by or on behalf of the District, the Participant or any Other Participant in connection with the design, engineering and/or planning of the Nacimiento Project during the Design Phase.

Section 3. Correction of Clerical Error in Article 2(D). The words "on the Opt-out Date" and "on an Opt-out Date" in the second and third sentences respectively of paragraph (D) of Article 2 of the Original Contract are hereby both corrected and replaced with the words "by the Opt-out Date."

Section 4. Addition of New Article to Contract. A new Article is hereby added to the Contract, to be inserted between Article 2 and Article 3 of the Contract, and to read in its entirety as follows:

ARTICLE 2.5

ALTERNATE FINANCING OF DESIGN PHASE COSTS

(A) Financing Design Phase Costs. The Participant is obligated to pay to the District its *pro rata* share of the Design Phase Costs. The parties have determined that the Design Phase Costs may be financed initially with Cash Contributions from the Participant and from some or all the Other Participants and/or from the proceeds of certain Tax-Exempt and/or taxable Notes to be issued by the District or by the SLO County Financing Authority on behalf of the Participant and/or Other Participant(s). To the extent that the Participant elects to make Cash Contributions towards its pro rata share of Design Phase Costs, such Cash Contributions shall be calculated and become due in accordance with this MOU.

(B) Notice of Election. In order to make Cash Contributions under this Article, the Participant shall provide the District with its written election to make Cash Contributions towards Design Phase Costs by a date no later than 30 days following the effective date of this MOU, as described in Section 7 of this MOU. In the event the Participant does not elect to make

a Cash Contribution, or in the event that the Cash Contributions described herein do not completely cover the Participant's *pro rata* share of all Design Phase Costs, the Participant confirms and ratifies the authorization of the District to issue or cause to be issued Notes on behalf of the Participant.

(C) Cash Contribution Amount. If the Participant elects to use the Cash Contribution method described in this Article, the amount of said Cash Contributions is hereby established as follows:

(i) *Current Cash Contribution Amount.* The amount of the Participant's Cash Contribution is set forth in the attached Exhibit A, which is incorporated herein by this reference, and made a part hereof. Exhibit A also sets forth the District's current estimate of the total Design Phase Costs and the Participant's and each Other Participant's *pro rata* share of that estimate. Participant shall pay its Cash Contribution to the District pursuant to the payment schedule set forth on Exhibit A.

(ii) *Methodology for Calculating Any Additional Cash Contributions.* The Parties understand and agree that the amount of the current Cash Contribution is based upon a District estimate of the cost of the various services and tasks needed to complete the Design Phase, and that the actual Design Phase Costs may actually be higher or lower than these estimates. In the event the Design Phase Costs exceed the District's original estimates, additional Cash Contributions may be necessary to pay for the total Design Phase Costs. The exact amount of any such additional Cash Contributions will depend upon (1) the actual Design Phase Costs incurred to date, (2) any anticipated additional Design Phase Costs need to complete the Design Phase, and (3) whether any Notes have or will be issued to finance Design Phase Costs. Any such additional Cash Contributions shall be evidenced by a revised Exhibit A to this MOU which will reflect the increases in Design Phase Costs calculated by the District. Any such revised Exhibit A shall be submitted by the District to the Nacimiento Project Commission ("NPC") for the NPC's approval. No revision to Exhibit A will be presented to the NPC until after the District has provided written notice of such revision to the Participants. Once approved by the NPC and delivered by the District to the Participant, the amount of any additional Cash Contributions set forth in the revised Exhibit A shall be binding upon the Participant. Only one revision of Exhibit A is allowed under this paragraph.

Regardless of whether any additional Cash Contribution(s) are required of Participant under this Article, the Participant is still obligated to pay its *pro rata* share of the total Design Phase Costs. In the event the NPC should fail to approve future revisions to Exhibit A, any Design Phase Costs not paid through Cash Contribution(s) shall be financed as provided in the Contract. In such event, the Participant understands and agrees that it may not be possible to complete the Design Phase unless the District issues or causes to be issued Notes in the name and on behalf of one or more of the Participants in order to fund the remaining Design Phase Costs not covered by Exhibit A.

(D) Participant's Access to Information. At Participant's request, the District shall provide the Participant with any and all updated engineering or design information, contract terms and other information relating to the Project which supports the District's calculation of the Cash Contribution.

(E) Payment Schedule. The Participant covenants and agrees that, in the event it elects to make a Cash Contribution, it will make installment payments to the District pursuant to the payment schedule included on Exhibit A. The payment schedule for any additional Cash Contributions shall be set forth in any further revision to Exhibit A. The Participant understands that, unless it has opted out under the provisions of Article 2(B) of the Contract, its Cash Contribution(s), if any, may (at the option of the Participant, and only to the extent covered by the terms of a resolution adopted by the governing body of the Participant in compliance with U.S. Treasury Regulation Section 1.150-2) be reimbursed to the Participant from the proceeds of the Notes and/or the Revenue Bonds. The parties understand and agree that any payment schedule for the Notes and/or the Revenue Bonds shall be dictated by financial market conditions on such date of issuance and that payments due from the Participant in connection with its proportionate share of the Notes and/or the Revenue Bonds may be made more frequently, or less frequently, and in larger or smaller amounts than the Participant's payments hereunder.

Section 5. Governing Law. This MOU shall be governed by the provisions of the laws of the State of California applicable to contracts made and performed in such State.

Section 6. Counterparts. This MOU may be executed in counterparts, each of which shall, together, constitute an entire document.

Section 7. Effective Date. This MOU shall become effective as of the last date upon which the District, the Participant, and the Other Participants shall execute this MOU or one of the Other MOUs, in accordance with Article 32 of the Contract.

Section 8. Ratification. In all other respects, the provisions of the Original Contract are confirmed and ratified.

IN WITNESS WHEREOF, the parties have each executed this MOU by their duly authorized representatives as of the first date set forth above:

ATASCADERO MUTUAL WATER COMPANY

By _____
Authorized Representative

Date April 13, 2005

APPROVED AS TO FORM:
[PARTICIPANT ATTORNEY]

By _____

ATTEST:
[PARTICIPANT CLERK]

By _____

SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By SHIRLEY BIANCHI
Chairperson, Board of Supervisors

Date MAY 24 2005

APPROVED AS TO FORM:
COUNTY COUNSEL:

By _____
Deputy County Counsel

Date 3/10/05

ATTEST:
JULIE L. RODEWALD, COUNTY CLERK

By C.M. CHRISTENSEN
Deputy County Clerk

Date MAY 27 2005

EXHIBIT A

ESTIMATED DESIGN PHASE COSTS AND CASH CONTRIBUTIONS

The current estimated total Design Phase Costs of the Project are $18,890,000, within which the District calculates the following numbers as the Cash Contributions of various Participants:

Participant	Total Estimated Cash Contribution
City of San Luis Obispo	$ 6,630,202
City of Paso Robles	7,846,339
Templeton CSD	490,384
Atascadero MWC	3,923,075
Total	$18,890,000

Payment Schedule

Installment No.	Participant	Due Date	Amount
1	SLO City	April 1, 2005	$816,964
	Paso Robles	April 1, 2005	$966,815
	Templeton	April 1, 2005	$60,425
	AMWC	April 1, 2005	$483,396
2	SLO City	July 1, 2005	$616,514
	Paso Robles	July 1, 2005	$729,597
	Templeton	July 1, 2005	$45,599
	AMWC	July 1, 2005	$364,790
3	SLO City	October 1, 2005	$681,447
	Paso Robles	October 1, 2005	$806,441
	Templeton	October 1, 2005	$50,401
	AMWC	October 1, 2005	$403,211
4	SLO City	January 1, 2006	$659,510
	Paso Robles	January 1, 2006	$780,480
	Templeton	January 1, 2006	$48,779
	AMWC	January 1, 2006	$390,231

Payment Schedule Continued

Installment No.	Participant	Due Date	Amount
5	SLO City	April 1, 2006	$922,753
	Paso Robles	April 1, 2006	$1,092,008
	Templeton	April 1, 2006	$68,249
	AMWC	April 1, 2006	$545,990
6	SLO City	July 1, 2006	$1,473,526
	Paso Robles	July 1, 2006	$1,743,806
	Templeton	July 1, 2006	$108,985
	AMWC	July 1, 2006	$871,882
7	SLO City	October 1, 2006	$1,459,487
	Paso Robles	October 1, 2006	$1,727,192
	Templeton	October 1, 2006	$107,947
	AMWC	October 1, 2006	$863,575
Total			**$18,890,000**

RESOLUTION OF THE BOARD OF DIRECTORS OF THE ATASCADERO MUTUAL WATER COMPANY, IN CONNECTION WITH THE NACIMIENTO WATER PROJECT, APPROVING CERTAIN DISCLOSURES REGARDING ATASCADERO MUTUAL WATER COMPANY AND APPROVING AN AMENDMENT TO THE WATER SUPPLY CONTRACT WITH THE SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

WHEREAS, this Board of Directors (the "Board") has heretofore entered into a Nacimiento Project Water Delivery Entitlement Contract (the "Delivery Contract") with the San Luis Obispo County Flood Control and Water Conservation District (the "District"), in connection with the Nacimiento Water Project (the "Project") for the supply of additional water for the use and benefit of the lands and inhabitants served by Atascadero Mutual Water Company ("AMWC"); and

WHEREAS, the District and the SLO County Financing Authority (the "Authority") are ready to proceed with the financing of the Project in the municipal bond markets (the "Bond Issue") through the issuance and sale of Municipal Obligations (as defined in the Delivery Contract); and

WHEREAS, in connection with the financing of the Project, the Board has been presented with a form of Preliminary Official Statement, together with an appendix containing statistical and other descriptive information regarding AMWC (the "Appendix") and a form of Continuing Disclosure Agreement (the "Continuing Disclosure Agreement"); and

WHEREAS, the District has proposed that AMWC would benefit from certain amendments to the Delivery Contract, having the effect of reducing the annual rate levels for water sales by AMWC and, to that end, this Board has been presented with an amendment to the Delivery Contract (the "Delivery Contract Amendment"), and wishes to approve such amended terms;

NOW, THEREFORE, the Board of Directors of Atascadero Mutual Water Company does hereby resolve and determine as follows:

Section 1. The foregoing recitals are true and correct.

Section 2. UBS Securities LLC, as underwriter for the Authority (the "Underwriter") is authorized to use a Preliminary Official Statement and Official Statement, each containing an Appendix A (or a revised form thereof) describing certain statistical and other information of AMWC in the marketing and sale of the Authority's Revenue Bonds (the "Bonds"), based upon information provided and to be provided by AMWC, with such changes from the form of Preliminary Official Statement submitted to this Board as the Board President, General Manager, or a designee thereof (each, an "Authorized Representative") may determine to be in the best interests of AMWC. AMWC shall be responsible for notifying the Authority and the Underwriter should any information regarding AMWC in said Appendix materially change from the time of submission to the closing date of the Bond Issue.

Section 3. The form of Continuing Disclosure Agreement presented to and reviewed by this meeting of the Board is hereby approved, and the Authorized Representative of AMWC is

hereby authorized and directed to execute and deliver a Continuing Disclosure Agreement, substantially in the form presented to and approved at this meeting of the Board, with such changes therein as the Authorized Representative, AMWC Counsel, and the District may approve, such approval to be evidenced by the signature of said Authorized Representative.

Section 4. The terms and provisions of the Delivery Contract Amendment, as presented to and reviewed by this meeting of the Board of Directors, are hereby approved, and the Authorized Representative is hereby authorized and directed to execute the amendment to the Contract in the name and on behalf of AMWC, in substantially the form presented to and approved at this meeting of the Board, with such changes therein as the Authorized Representative, the AMWC Counsel and the SLO County Financing Authority may approve, such approval to be evidenced by the signature of said Authorized Representative.

Section 5. The Board President or General Manager of AMWC is hereby authorized and directed, for and in the name and on behalf of AMWC, to do or cause to be done any and all things and take any and all other actions in support of the issuance of the Municipal Obligations, including, without limitation, the execution of certificates and ancillary documents and the delivery of opinions on behalf of AMWC as may be reasonably required by the District, which they, or any of them, deem necessary or advisable in order to consummate the purposes described herein.

Section 6. This resolution shall take effect immediately upon its adoption.

PASSED, APPROVED, AND ADOPTED at the regular meeting of the Board of Directors held at Atascadero, California, on August 8, 2007.

By: Rodger E. Vierra
Rodger E. Vierra, President

ATTEST:

By: Cheryl J. Powers
Cheryl J. Powers, Corporate Secretary

Appendix F. CONSUMER CONFIDENCE REPORT (2019)

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019

Presented By

ATASCADERO MUTUAL WATER COMPANY
SERVING THE COLONY SINCE 1913

Este informe contiene información muy importante sobre su agua potable. Por favor tradúzcala o hable con alguien que la entienda.

PWS ID#: 4010002

Here When You Need Us

We are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2019. AMWC's highly competent staff is constantly seeking the best approaches to delivering you the highest-quality water possible and is dedicated to producing drinking water that meets all state and federal standards. We are committed to meeting the state's water source protection, water conservation, and community education goals and serving the needs of all our water users.

What's the Source of My Water?

AMWC's water sources are the groundwater found in the Atascadero Basin, the underflow of the Salinas River, and Nacimiento Lake. Groundwater resides in the pore spaces of the sand and gravel that make up these geologic formations and is naturally filtered, clean, and clear. AMWC pumps the groundwater from 15 active wells into various portions of its distribution system. When needed, AMWC discharges water from the Nacimiento Water Project into a recharge basin to replenish the groundwater it pumps.

The watershed that replenishes the Atascadero Basin encompasses a 247-square-mile area along the Salinas River, extending to its headwaters. Only a small percentage of that area (about 550 acres) is owned by AMWC. The majority of the watershed is comprised of open space and residential/commercial development.

Perfluoroalkyl Substances (PFAS)

Perfluorooctanoic acid (PFOA) and perfluoroctanesulfonic acid (PFOS) are in a group of man-made chemicals known as perfluoroalkyl substances (PFAS). These chemicals have been used since the 1940s in a variety of industries around the globe, including the United States. Both are very persistent in the environment and the human body – meaning they don't break down and can accumulate over time.

In 2019, AMWC received the results of water samples that were analyzed for PFOA and PFOS under an SWRCB order. The sampling results showed that four of AMWC's water supply wells had levels of PFOA between 3.8 and 26 parts per trillion (ppt) and PFOS between 4 and 32 ppt. The highest combined level of these contaminants detected in one well was 53 ppt.

None of the wells had combined levels of these contaminants above the 70 ppt health advisory level established by the U.S. EPA. The U.S. EPA's health advisory level for PFOA and PFOS offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

One ppt is equivalent to one ounce in 7.8 billion gallons, one drop in 13.2 million gallons, or one second in 32,000 years.

AMWC Wants To Share What We Do

Need a guest speaker? If your group would like to learn more about AMWC water resources, topics include:

- The 100+ year history of AMWC
- Water production, treatment facilities, and the Nacimiento recharge basin
- Water conservation
- Appropriate plants for Atascadero home gardens

Tours

AMWC will schedule tours of its facilities for interested shareholders. These tours last approximately two hours. On the tour, you will visit wells, treatment facilities, the Nacimiento Water Project recharge basin, and AMWC's corporate yard, booster stations, and tanks. To arrange a tour, call John Neil at (805) 464-5351.

Activities for Kids

- The Story of Our Water: a 45-minute presentation for third- and fifth-grade classes in Atascadero
- Water Exploration field trip: provides students with a terrific firsthand investigation of the Salinas River and explains how this water source is managed to provide a safe, reliable water supply to residents of the Atascadero area
- Water Cycle or Conservation bracelet activity: for children's organizations, troops, and childcare facilities

Call (805) 464-5347 or email jhendrickson@amwc.us to schedule your free presentation, talk, or tour.

Community Participation

AMWC holds monthly board meetings, typically on the second Wednesday of each month. The meetings are held at the AMWC business office at 5005 El Camino Real, Atascadero, at 5:30 p.m. Please call (805) 466-2428 or check our website (www.amwc.us) to confirm the date. Agendas are available at the meetings and on our website. Public comment is welcome.

Questions?

Should you ever have questions regarding this report or the quality of your drinking water, please call Mike Stephens, AMWC's Chief Operator, at (805) 466-2428, or email him at mstephens@amwc.us.

Drinking Water Source Assessment and Protection Program

Drinking Water Source Assessment Plans (DWSAP) assess the area around a drinking water source through which contaminants might move and reach that drinking water supply. They include an inventory of possible contaminating activities (PCAs) that might lead to the release of microbiological or chemical contaminants within the delineated area and a determination of the PCAs to which the drinking water source is most vulnerable.

According to the DWSAPs, our water system has a physical barrier effectiveness rating of low to moderate. It is important to understand that this susceptibility rating does not imply poor water quality, only the system's potential to become contaminated within the assessment area. If you would like to review the DWSAPs, please feel free to contact our office during regular business hours.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to reduce the risk of infection by *cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the tables represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2019	10	0.004	0.3	ND–3.4	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2019	[4.0 (as Cl2)]	[4 (as Cl2)]	0.89	0.79–0.98	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2019	2.0	1	0.20	ND–0.29	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2019	15	(0)	4.5	2.1–7.8	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2019	60	NA	13.6	ND–17.5	No	By-product of drinking water disinfection
Nickel (ppb)	2019	100	12	0.77	ND–10	No	Erosion of natural deposits; discharge from metal factories
Nitrate + Nitrite (ppm)	2019	10	10	1.63	ND–2.6	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate [as N] (ppm)	2019	10	10	1.67	ND–3.2	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2019	50	30	6.2	ND–8.2	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	48.7	18.5–60.7	No	By-product of drinking water disinfection
Uranium (pCi/L)	2019	20	0.43	4.7	3.6–8.9	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH PERCENTILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	0.3	0.98	0/62	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2019	15	0.2	ND	0/62	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

OTHER REGULATED SUBSTANCES [1]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Fecal Coliform or *E. coli* (# positive samples)	2019	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive[1]	0	ND	NA	No	Human or animal fecal waste
Total Coliform Bacteria (# positive samples)	2019	More than 1 positive monthly sample[1]	0	ND	NA	No	Naturally present in the environment
pH (Units)	2019	NA	NA	7.51	7.2–8.0	No	NA

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2019	50	NS	12	ND–29	No	Leaching from natural deposits
Odor–Threshold (TON)	2019	3	NS	2.0	1.0–4.0	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2019	1,600	NS	715	540–1,200	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2019	1,000	NS	573	320–790	No	Runoff/leaching from natural deposits
Turbidity (Units)	2019	5	NS	0.13	ND–5.68	No	Soil runoff

UNREGULATED SUBSTANCES [2]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2019	130	ND–230	NA
Sodium (ppm)	2019	48	28–97	Refers to the salt present in the water and is generally naturally occurring
Vanadium (ppm)	2019	6.2	ND–8.9	Naturally occurring

Definitions

90th percentile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90 percent of our lead and copper detections.

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

grains/gal (grains per gallon): Grains of compound per gallon of water.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TON (Threshold Odor Number): A measure of odor in water.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

OTHER UNREGULATED SUBSTANCES [2]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity [Total, as CaCO3] (ppm)	2019	220	160–330	Naturally occurring
Bicarbonate [HCO3] (ppm)	2019	282	200–400	Naturally occurring
Bromide (ppm)	2018	113	79–180	Naturally occurring
Calcium (ppm)	2019	72	49–120	Erosion of natural deposits
Chloride (ppm)	2019	84	19–160	Runoff/leaching from natural deposits; seawater influence
HAA6Br[3] (ppb)	2018	21	15–23	By-product of drinking water disinfection
HAA9[3] (ppb)	2018	30	18–33	By-product of drinking water disinfection
Hardness [Total, as CaCO3] (grains/gal)	2019	19	13–27	The sum of the polyvalent cations present in the water, generally, magnesium and calcium. The cations are usually naturally occurring.
Magnesium (ppm)	2019	32	25–42	Erosion of natural deposits
O-Phosphate [as PO4] (ppm)	2019	2.3	1.2–2.6	Added as a corrosion inhibitor
Perfluorobutanesulfonic Acid [PFBS] (ppb)	2019	0.0113	ND–0.014	Industrial manufacturing persistent in the environment
Perfluoroheptanoic Acid [PFHpA] (ppb)	2019	0.0045	ND–0.0070	Industrial manufacturing persistent in the environment
Perfluorohexanesulfonic Acid [PFHxS] (ppb)	2019	0.0207	ND–0.023	Industrial manufacturing persistent in the environment
Perfluorohexonic Acid [PFHxA] (ppb)	2019	0.007	ND–0.010	Industrial manufacturing persistent in the environment
Perfluorononanoic Acid [PFNA] (ppb)	2019	0.0077	ND–0.0085	Industrial manufacturing persistent in the environment
Perfluorooctanesulfonic Acid [PFOS] (ppb)	2019	0.035	ND–0.039	Industrial manufacturing persistent in the environment
Perfluorooctanoic Acid [PFOA] (ppb)	2019	0.020	ND–0.026	Industrial manufacturing persistent in the environment
Potassium (ppm)	2019	1.8	1.1–3.2	Erosion of natural deposits
Sulfate (ppm)	2019	100	72–140	Runoff/leaching from natural deposits; industrial wastes
Total Germanium[3] (ppb)	2018	0.32	0.32–0.32	Naturally occurring
Total Organic Carbon [TOC][3] (ppb)	2018	1.1	0.67–1.7	Natural and man-made sources

[1] Federal revised and state total coliform rule
[2] Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.
[3] UCMR4 Sampling Results

Appendix G. WATER SHORTAGE CONTINGENCY PLAN

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Bibliography

The following reports, studies, and other material were reviewed during preparation of this Water Shortage Contingency Plan.

1) 2020 Urban Water Management Plans Guidebook for Urban Water Suppliers dated March 2021 and prepared by the California Department of Water Resources.

2) Draft Atascadero Basin Groundwater Sustainability Plan dated February 2021 and prepared by AMWC.

List of Acronyms

AB - Assembly Bill

AF - Acre-Foot

AMWC - Atascadero Mutual Water Company

AWIA - America's Water Infrastructure Act

BMP - Best Management Practice

CEHTP - California Environmental Health Tracking Program

CASGEM - California Statewide Groundwater Elevation Monitoring Program

CII - Commercial, Industrial, Institutional, water use sectors

CIMIS - California Irrigation Management Information System

County – County of San Luis Obispo

CUWCC - California Urban Water Conservation Council

CWC - California Water Code

DMMs - Demand Management Measures

DOF - Department of Finance

DU – Dwelling Unit

DWR - Department of Water Resources

eARDWP - Electronic Annual Reports to the Drinking Water Program (SWRCB)

ERP - Emergency Response Plan

ETo - Reference Evapotranspiration

GIS - Geographic Information System

GPCD - Gallons per Capita per Day

IRWM - Integrated Regional Water Management

ITP - Independent Technical Panel

LAFCO - Local Agency Formation Commission

NOAA - National Oceanic and Atmospheric Administration

NPDES - National Pollutant Discharge Elimination System

PWS - Public Water System

RRA - Risk and Resiliency Assessment

RWQCB - Regional Water Quality Control Board

SB - Senate Bill

SB X7-7 - Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009

SGMA - Sustainable Groundwater Management Act

SQ FT – Square Feet

SWP - State Water Project

SWRCB - State Water Resources Control Board

RUWMP - Regional Urban Water Management Plan

UWMP - Urban Water Management Plan

WARN - Water/Wastewater Agency Response Network

WDR - Waste Discharge Requirement

WRR - Water Recycling Requirement

WSCP - Water Shortage Contingency Plan

CHAPTER 1 INTRODUCTION

1.1 Law

This Water Shortage Contingency Plan (WSCP) for the Atascadero Mutual Water Company (AMWC) outlines a program for responding to water supply limitations. The intent of the water conservation measures and progressive restrictions on water use and method of use identified in this WSCP is to provide certainty to water users and enable AMWC to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public.

In 2015, in accordance with the Governor of the State of California mandate, AMWC revised declaration of a stage 2 water shortage condition and prohibitions on the wasteful use of water. AMWC updated and amended the WSCP in June 2021 to meet the new requirements of the 2020 UWMP update.

This WSCP describes measures to be implemented during times of declared water shortages, or declared water shortage emergencies by either the District, State or Federal government. It establishes six stages of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing available supplies.

1.2 Atascadero Mutual Water Company (AMWC)

Atascadero Mutual Water Company (AMWC) serves over 30,000 people and covers approximately 24,000 acres in northern portion of the County. AMWC boundary includes incorporated area of the City of Atascadero and certain areas within the unincorporated area of the County of San Louis Obispo.

AMWC depends on three sources of water supply, which include the following: surface water from the Salinas River underflow, groundwater from the Atascadero Basin, and supplemental surface water from the Nacimiento Water Project (NWP). The County of San Luis Obispo (County) has prepared a reliability analysis for the water that they wholesale to AMWC through the NWP. AMWC has used the numbers prepared by the County in determining the frequency and magnitude of surface water supply deficiencies that AMWC may face.

AMWC benefits from having multiple water sources from which to draw from during shortages. AMWC works to build capacity in their system such that they can maximize their existing resources without importing new sources. Although many portions of California experienced shortages during the most recent drought, AMWC was able to meet customer demands by voluntary reduction of customer usage without forced rationing.

Relevant sections of the water code as related to the WSCP are included in Appendix A.

CHAPTER 2 WATER SUPPLY ANALYSIS

2.1 Water Supply Reliability Analysis

AMWC has never had a single year or multiple dry years in which it did not pump 100% of its demand, regardless of regional hydrology. Therefore, there is no basis in the hydrologic record for reducing supply reliability based upon single and/or multiple dry year conditions when imported water supply is available in addition to historical groundwater production. On this assumption, AMWC's supply is presented as 100% reliable for single and multiple dry year periods as summarized in the following sections.

To supplement this statement AMWC, developed **Table 2-1**, which involved a preliminary climate change vulnerability screening (including impacts from extreme heat, water quality, sea level rise, flooding, and wildfire) for its water supplies.

Table 2-1: Climate Change Vulnerability Screening

Assessment	Imported Water - Nacimiento Water Project	Groundwater - Atascadero Basin	Groundwater - Salinas River Underflow
	Level of Risk	Level of Risk	Level of Risk
I. Water Supply and Demand			
Are the water supply diversions sensitive to climate change?	2	2	3
Is the water supply source affected by urban or agricultural water demand that might be climate sensitive?	2	2	2
Is groundwater a major supply source?	Not applicable	3	3
Does the water supply source rely on or could it be affected by snowmelt?	Not applicable	Not applicable	Not applicable
Does the water supply source come from or could it be affected by coastal aquifers? Has saltwater intrusion been a problem in the past?	Not applicable	Not applicable	Not applicable
Does the water supply source rely on or could it be affected by changes in stored water supplies?	Not applicable	Not applicable	Not applicable
II. Extreme Heat			
Could extreme heat impact operations of the water supply project or diversions?	Not applicable	Not applicable	Not applicable
Does the supply source rely on equipment or infrastructure that could be impacted by extreme or prolonged heat?	Not applicable	Not applicable	Not applicable
III. Water Quality			
Could water quality issues, such as low dissolved oxygen, algal blooms, disinfectant biproducts affect the water supply source?	1	Not applicable	Not applicable
Could reduction in assimilative capacity of a receiving water body affect the water supply source?	1	3	3

Could the water supply source be affected by water quality shifts during rainfall/runoff events?	1	1	3
IV. Sea Level Rise			
Is any of the water supply source infrastructure located in area that could be exposed to rising tides?	Not applicable	Not applicable	Not applicable
Could coastal erosion affect the water supply source?	Not applicable	Not applicable	Not applicable
Is the water supply source dependent on coastal structures, such as levees or breakwaters, for protection from flooding?	Not applicable	Not applicable	Not applicable
V. Flooding			
Is the water supply or any of its associated infrastructure located within the 200-year floodplain? Does the water supply source rely on flood protection infrastructure such as levees or dams?	2	3	4
VI. Wildfire			
Is the water supply source located in an area that is expected to experience an increase in wildfire activity or severity? Would a wildfire result in damage to the water supply source infrastructure or interruption of its ability to perform as designed? Could the water supply source be affected by an increase in wildfire activity or severity in an upstream watershed or other adjacent area?	1	Not applicable	Not applicable
Notes: Level of Risk: 1 - low, 3-medium, 5-high			

2.2 Annual Water Supply and Demand Assessment Procedures

In accordance with CWC 10632 AMWC will conduct an annual water supply and demand assessment, or annual assessment by July 1st of each year.

AMWC will determine if a shortage in supply exists and declare the appropriate water shortage level based on the findings. AMWS will draft and prepare a written report that discusses the results of the annual water supply and demand assessment, what water shortage level and shortage response actions are to be implemented and issue the appropriate communication to customers and local governments. A copy of the annual report will be submitted to the Board Members ahead of the meeting for review. The Board of Directors will listen to the findings and recommendations outlined in the report and vote to approve and implement the actions described in the annual report at a May board meeting.

The Water shortage Contingency plan team will consist of AMWC's general manager and Engineer. The team will draft and prepare the annual water supply reliability analysis report. The report will use the key data inputs and methodology described in **Table 2-2** to determine the unconstrained demand, infrastructure capabilities, available water supply and reliability for the current year and one dry year.

Table 2-2: Key Data Inputs		
Key Input:	**Data:**	**Description:**
Current year Customer Demand and Available Supply	Public Water System Statistics Sheet (DRW sheet)	The water statistics sheet is prepared by AMWC's general manager in January for the previous year. The statistics sheet will be used to calculate water supply by source and show unconstrained water demand.
Projected Water Supply	Well Production History Worksheet	This worksheet is prepared by AMWC's general manager and is updated each year. This worksheet provides the monthly production totals for each well. This will be used to help determine water supply reliability.
Infrastructure Considerations	Annual Project List and Schedule	This list will be prepared by the general manager and describe all the planned AMWC projects for the year. The annual project list will be used to assess infrastructure capabilities and any potential constraints to the water system.

2.2.1 Assessment Methodology

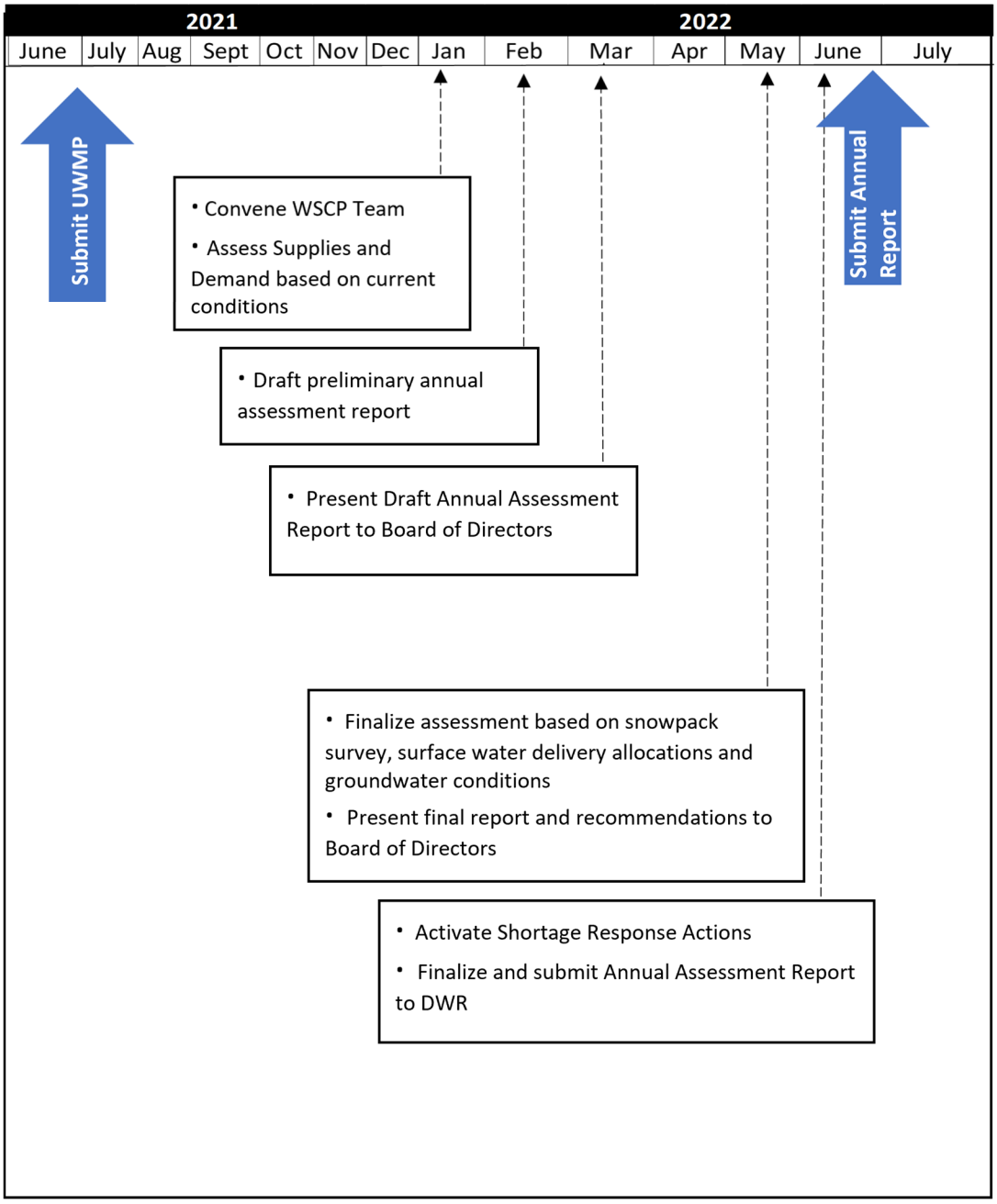
AMWC will enact water shortage response actions if the available water supply is less than the estimated demands. A dry year will be defined as a year where there is over a 10% reduction in the available water supply and corresponds to a stage 2 water shortage level in **Table 2-3**. AMWC will take the following steps to evaluate the water supply and demand:

1. Evaluate Water Supply: Using the Public Water System Statistics Sheet for the past year determine the total amount of water available to AMWC by each source. Review the water supply contract between the NWP and AMWC for any conditions that would lead to supply reductions. Calculate the total water supply available using an excel spreadsheet.
2. Calculate Unconstrained Customer Demand: Using the Public Water System Statistics Sheet calculate the total water delivered the previous year.
3. Planned Water Use for Current Year Considering Dry Year**:** Compare the available water supply and the customer demand and determine if there is an expected water shortage.
4. Infrastructure Considerations: Using the Annual Project list and schedule, determine if any projects will reduce or increase supply.
5. Compare supply and demand and decide of the level of water supply reliability for current year and one dry year, declare a water shortage level, and issue relevant communication, if necessary.

2.2.2 Water Supply Reliability Analysis Timeline

AMWC will start to evaluate the water supply availability in January and will submit the report to the DWR in June of each year as shown in **Figure 2-1**:

Figure 2-1: Water Supply Reliability Analysis Timeline



2.3 Six Standard Water Shortage Levels

This WSCP identifies water conservation measures and progressive restrictions on water use to provide certainty to water users and to enable AMWC to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public in accordance with CWC §10632(a)(3). This WSCP establishes six (6) stages of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing supplies. This WSCP includes both voluntary and mandatory water use reductions depending on the causes, severity, and anticipated duration of the water supply shortage. Water use reduction stages may be triggered by a shortage or contamination in one water source or a combination of sources or during times that a shortage is declared by AMWC, State, or Federal government. AMWC potable water sources are

groundwater and surface water. Because shortages overlap stages, triggers automatically implement the more restrictive Stage. Specific criteria for triggering AMWC's water use reduction stages are shown in **Table 2-3**.

Table 2-3: Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions *(Narrative Description)*
1	Up to 10%	Reserve production capability of 20% above the maximum daily demand representing "Normal" water supply conditions with "Voluntary" (always in place) compliance with water savings measures.
2	Up to 20%	Reserve production capability of 10% above the maximum daily demand representing "Slightly Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
3	Up to 30%	No reserve production capability representing "Moderately Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
4	Up to 40%	Less than 0% reserve production capability representing "Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
5	Up to 50%	Less than 0% reserve production capability representing "Severely Restricted" water supply conditions with "Mandatory" compliance with water savings measures.
6	>50%	Less than 0% reserve production capability representing "Extremely Restricted" water supply conditions with "Mandatory" compliance with water savings measures.

Figure 2-2 provides a crosswalk that shows AMWC's water shortage levels to those mandated by statute.

Figure 2-2: Crosswalk for AMWC's 2015 Shortage Levels and the 2020 WSCP Mandated Shortage Levels

Stages from 2015 UWMP			Crosswalk	2020 WSCP Mandated Shortage Levels			
Shortage Level	**Percent Supply Reduction**	**Water Supply Condition**		**Shortage Level**	**Percent Supply Reduction**	**Water Supply Condition**	**Mandatory compliance with water savings measures**
0	0%	Reserve production capability of 20% above the maximum daily demand		1	0% to 10%	Normal	Voluntary, always in place
1	0%-15%	Reserve production capability of 10% above the maximum daily demand		2	10% to 20%	Slightly Restricted	Mandatory compliance
2	15%-35%	No reserve production capability		3	20% to 30%	Moderately Restricted	Mandatory compliance
3	35%-50%	Less than 0% reserve production capability		4	30% to 40%	Restricted	Mandatory compliance
				5	40% to 50%	Severely Restricted	Mandatory compliance
				6	50% and above	Extremely Restricted	Mandatory compliance

CHAPTER 3 WATER SHORTAGE RESPONSE ACTIONS

3.1 Shortage Response Actions

3.1.1 Demand Reduction

Table 3-1 summarizes the restrictions and prohibitions on end uses during each stage of water shortage response implemented by AMWC in accordance with CWC §10632(a)(4)(B). The shortage response actions are aligned to the six water shortage levels with the goal of reducing the gap between supply and demand by the required amount per level.

Table 3-1: Demand Reduction Actions

Shortage Level	Demand Reduction Actions	Estimated Extent of Reducing the Water Shortage Gap	Penalty, Charge, or Other Enforcement?
1	Education for water conservation methods.	Low	No
1	Public outreach for voluntary reduction in water use by 15%	Medium	No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Medium	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	High	Yes
2	Other - Shareholders must repair leaks, breaks, and malfunctions in a timely manner	Medium	Yes
3	Landscape - Limit landscape irrigation to specific times	High	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Low	Yes
3	Landscape - Prohibit certain types of landscape irrigation	Medium	Yes
4	CII - Other CII restriction or prohibition	Low	Yes
4	CII - Lodging establishment must offer opt out of linen service	Low	Yes
4	Landscape - Restrict or prohibit runoff from landscape irrigation	Medium	Yes
5	Other - Prohibit use of potable water for washing hard surfaces	High	Yes
5	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Medium	Yes
5	Landscape - Limit landscape irrigation to specific days	High	Yes
5	CII - Lodging establishment must offer opt out of linen service	Low	Yes
6	Landscape - Prohibit all landscape irrigation	High	Yes
6	Other - Prohibit use of potable water for construction and dust control	Medium	Yes

3.1.2 Supply Augmentation

Table 3-2 summarizes the restrictions and prohibitions on end users during each stage of water shortage responses implemented by AMWC in accordance with CWC §10632(a)(4)(A).

Table 3-2: Supply Augmentation and Other Actions			
Shortage Level	**Supply Augmentation Methods and Other Actions by Water Supplier**	**Estimated Extent of Reducing the Water Shortage Gap**	**Penalty, Charge, or Other Enforcement?**
All Stages	Expand Public Information Campaign	Medium	No
1 and 2	Other – Voluntary Water Use Reductions	Medium	No
	Implement or Modify Drought Rate Structure or Surcharge	High	No
5 and 6	Stored Emergency Supply	Low	No
5 and 6	Other – Interrupt Irrigation Services	High	No

3.1.3 Operational Changes

In the event of an extreme water shortage AMWC will implement some or all of the following operational changes in accordance with CWC §10632(a)(4)(C) and §10632.5(a):

- ❑ AMWC shall provide prompt notice to customer whenever AMWC obtains information that indicates a leak may exist within the end-user's exclusive control. The customer must repair all leaks within twenty-four (24) hours of notification by AMWC.
- ❑ Evaluate maintenance procedures and alter if needed to improve system efficiency.
- ❑ Evaluate infrastructure repairs, and complete if possible, to improve system efficiency.

3.1.4 Additional Mandatory Restrictions

AMWC shareholders shall comply to the mandatory water shortage response actions listed in **Table 3-1** associated with a level 3 or higher water shortage event in accordance with §10632(a)(4)(D). In the event of a water shortage emergency or severe drought AMWC may enact additional mandatory restrictions:

- ❑ Implement drought water rates.
- ❑ Restrict or prohibit the issuance of new water services.

CHAPTER 4 EMERGENCY RESPONSE ACTIONS

4.1 Emergency Response Plan

A catastrophic event may result in a complete loss of water supplies for a temporary period lasting from a day to a week or more. Examples of catastrophic events include earthquakes, widespread power outage, contamination, long-term drought, or loss of imported supplies. Through information included in billing inserts, and information on its website, AMWC encourages its shareholders to be prepared for emergencies and potential interruption of water supply system. AMWC employees will be contacted and activated as per AMWC's emergency response policy. In the event of a catastrophic emergency the AMWC will immediately declare and enact level six (VI) water shortage level and response actions, shown in **Table 3-1.** The UWMP Act requires a catastrophic supply interruption plan. This plan looks at the vulnerability of each source and distribution system to events such as wildfires, flooding, earthquakes, landslides, rockslides, other natural disasters, and unforeseen emergencies. The actions taken to address each catastrophe are presented in **Table 4-1** below:

Table 4-1: Catastrophic Supply Interruption Actions

Possible Catastrophe	Summary of Actions
Regional Power Outage	• Assess the problem • Mobilize backup generators to booster stations • Start natural gas driven wells as required to meet potable water demands, check backup propane fuel supplies • Estimate potable water requirements and determine if needs can be met • Increase disinfection residual as precaution to potential contamination • Notify shareholders that water service may be disrupted and that restrictions may be necessary • Issue "Boil Water", "Do Not Drink", or "Do Not Use" orders and press releases as appropriate • Notify shareholders when it is safe to use drinking water again if orders issued
Earthquake/ Fault Rupture/ Liquefaction	• Activate personnel accountability network to check for injury to staff • Inspect all structures, wells, tanks, and boosters for obvious cracks and damage • Remove from service any structures, wells, tanks, and boosters that exhibit obvious cracks and damage • Estimate potable water requirements and determine if needs can be met • Isolate main breaks • Increase disinfection residual as precaution to potential contamination • If power disrupted, refer to "Regional Power Outage" for recommended actions • Assess and prioritize repairs • Notify shareholders that water service may be disrupted and that restrictions may be necessary • Issue "Boil Water", "Do Not Drink", or "Do Not Use" orders and press releases as appropriate • Notify shareholders when it is safe to use drinking water again if orders issued
Flood	• Disconnect electric power to wells • Remove RTU's from wells • Wrap large electric motors subject to flooding w/ plastic • Remove equipment and critical supplies from flood plain

	• Notify shareholders that water service may be disrupted and that restrictions may be necessary • Issue "Boil Water", "Do Not Drink", or "Do Not Use" orders and press releases as appropriate • Notify shareholders when it is safe to use drinking water again if orders issued
Contamination	• Assess the problem • Confirm identity of contaminant • Identify contaminated area • Evaluate direction of movement • Isolate portion of system containing contaminant • Shut down system in area contaminant confirmed • Issue "Boil Water", "Do Not Drink", or "Do Not Use" orders and press releases as appropriate • Initiate Alternate Water Supply Plan • Develop and implement remediation and recovery plan • Notify shareholders when it is safe to use drinking water again if orders issued

4.2 Seismic Risk Assessment and Mitigation Plan

The existing AMWC water service area covers approximately 38 square miles including the City of Atascadero and a portion of unincorporated area within the County of San Luis Obispo. The water system is comprised of approximately 240 miles of pipeline ranging in size from 4 inches to 24 inches, with nine storage tanks that range in size from 120,000 gallons to 4.8 million gallons. There are 15 active wells, eight booster stations, five treatment buildings, and 20 pressure-reducing stations located throughout the system. In addition, there are over 10,000 customer service connections, 3,700 valves, and 1,700 fire hydrants. Elevations in the system vary from 800 feet, at the well fields along the Salinas River, to 1,916 feet at the tank located in Summit Hills.

With respect to the seismic risk assessment and mitigation plan, AMWC completed their America's Water Infrastructure Act (AWIA) Risk and Resiliency Assessment (RRA) of the existing water distribution system in December 2020, which assessed seismic risk for AMWC's critical infrastructure. AMWC also has an existing Emergency Response Plan (ERP) that will be reviewed/updated as part of AWIA by December 31, 2021 and will include a mitigation plan to address seismic risk. AMWC has also developed a catastrophic supply interruption plan, as stated in Section 4.1 of this chapter, that identifies the actions AMWC would implement following a seismic event.

In addition, the County of San Luis Obispo, in partnership with the City of Atascadero, developed a Multi-Jurisdictional Hazard Mitigation Plan (Hazard Plan), which evaluated seismic risk within AMWC's service area. The following sections provide a summary of the general findings from the Hazard Plan with respect to potential impacts from earthquakes, faults, and liquefaction within the AMWC service area.

4.2.1 Faults, Earthquakes, and Liquefaction

Per the Hazard Plan, the following provides a description of major faults within the County of San Luis Obispo:

> *The California Geological Survey (CGS) is charged with recording and mapping faults throughout California. The Alquist-Priolo Earthquake Fault Zoning (AP) Act was passed into law following the destructive February 9, 1971 6.6 San Fernando earthquake. The AP Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the AP Act is to insure public safety by prohibiting the siting of most structures for human occupancy on or near active faults that constitute a potential hazard to structures from surface faulting or fault creep. Fault zoning is continually updated and reviewed by CGS and it is likely that other faults in addition to those currently listed by CGS will be added to the list in the future. The primary active faults identified by the AP Act in the County include the San Andreas, San Simeon-Hosgri, and Los Osos faults.*

San Andreas Fault: The San Andreas is a historically active fault thought to be capable of an earthquake up to and above the 8.0 magnitude range and generally runs along the eastern county border. It enters the County near the Cholame area, passes through the Carrizo Plain, and exits the county near Maricopa. As it passes through the County, three relatively distinct portions of the fault have separate potentials for causing a damaging earthquake. The portion of the fault that runs from Monterey County into San Luis Obispo County to an area near Cholame has commonly been known as the Parkfield segment of the San Andreas fault system. That portion of the fault system is the one that has an approximate 5.6 – 6.0 magnitude earthquake from time to time. A segment of the system that runs from approximately the Cholame area to about the northern edge of the Carrizo Plain area has been commonly known as the Cholame segment. The portion running from the northern Carrizo Plain area and out of the County into Kern County has been commonly known as the Carrizo segment.

It is believed that in 1857 a large (possible 7.8 or larger) earthquake occurred on the San Andreas fault that possibly originated in the Parkfield area and stretched along the fault to the area near San Bernardino. This is perhaps an illustration of the potential for the San Andreas to cause a very powerful earthquake and the need to be prepared.

A major earthquake along any section of the San Andreas Fault could result in serious damage within San Luis Obispo County. An earthquake of 8.0 or greater magnitude would result in severe ground motion and could cause damage throughout the County.

With respect to the AMWC service area the Rinconada and Nacimiento fault zones are the closest in proximity and are described below based on the Hazard Plan:

Mapped faults in the vicinity of Atascadero are the potentially active Rinconada fault and the Nacimiento fault zones. The Rinconada fault and its western associated fault, the Jolon, is mapped trending northwest along the eastern City limits. The fault mostly lies east of the Salinas River and outside the City limits. Although there is evidence that indicates movement along the Rinconada fault, the fault lacks any geomorphic features to suggest the fault is active. Because the Rinconada fault is potentially active, it presents a moderate fault rupture hazard to the City of Atascadero. Further studies to evaluate the activity of the faults are warranted, prior to placing structures near the mapped fault traces.

The Nacimiento fault zone consists of a nearly 10-kilometer wide northwest trending, complex fault zone located in the Santa Lucia Range of southwest Atascadero. The Nacimiento fault zone is classified as inactive by CSG but is believed to be coincident with the location of the epicenter for historic earthquakes that suggest the fault is seismically active. Given the uncertainty of the Nacimiento fault's activity, further studies to evaluate the activity of the faults are warranted, prior to placing structures near the mapped fault traces.

In addition, the Hazard Plan also provides a description of liquefaction susceptibility specifically within the City of Atascadero:

The areas of Atascadero that have a high potential to be underlain by potentially liquefiable sediments are those areas underlain by younger alluvium. Portions of the City in the low-lying areas adjacent to Atascadero Creek, Graves Creek, and the Salinas River are mapped as being underlain by younger alluvium. Site-specific studies are needed to evaluate if a geologic unit actually contains potentially liquefiable materials, and if they require mitigation for development.

Figure 4-1 provides an overview of the primary active earthquake fault lines described, **Figure 4-2** provides an overview of ground shaking potential across the County, and **Figure 4-3** provides an overview of liquefaction susceptibility. Relevant sections of the Hazard Plan are included as Appendix B.

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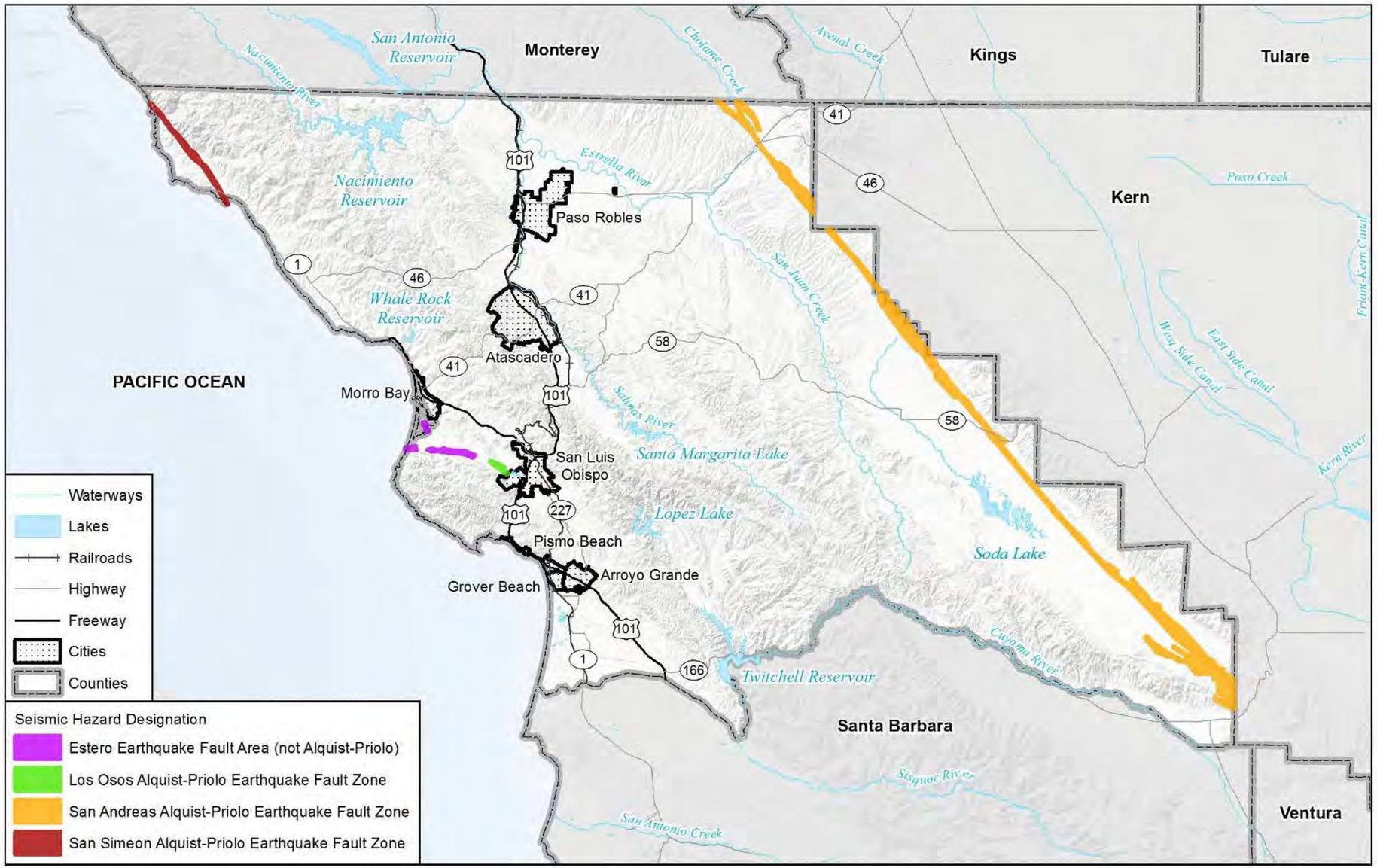
Figure 5-56 Earthquake Fault Zone Designations in San Luis Obispo County



Map compiled 2/2019;
intended for planning purposes only.
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal

Notes:
Map includes Figure 5-56 Earthquake Fault Zone Designations from San Luis Obispo County Local Hazard Mitigation Plan October 2019.

Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 4-1:

Earthquake Fault Line Map

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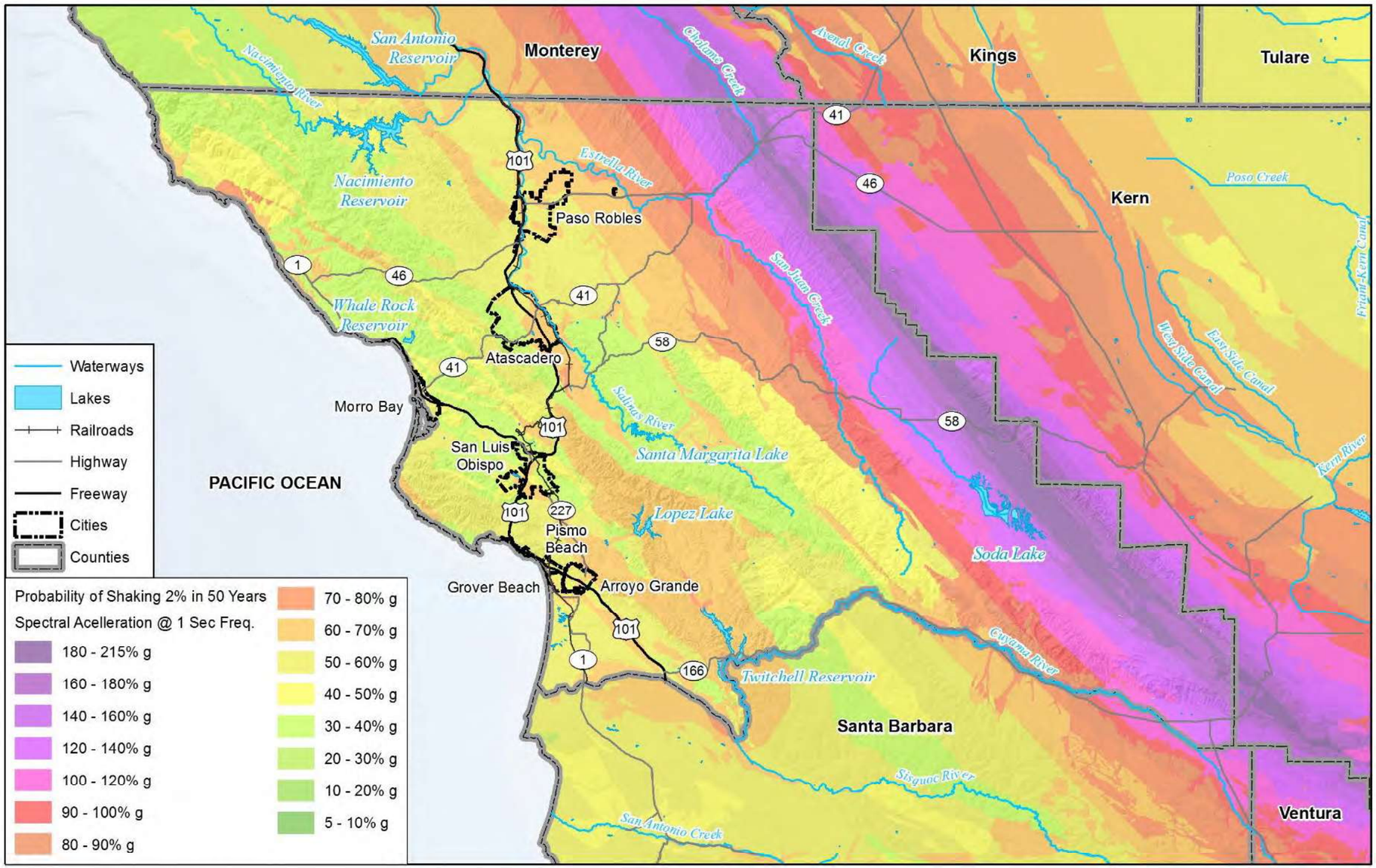
Figure 5-55 Ground Shaking Potential from Spectral Acceleration the Planning Area – Probability of Shaking 2% in 50 Years



Map compiled 2/2019;
intended for planning purposes only.
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, California Geological Survey, USGS

Notes:
Map includes Figure 5-54 Ground Shaking Potential from San Luis Obispo County Local Hazard Mitigation Plan October 2019.

Atascadero Mutual Water Company

2020 Urban Water Management Plan

Figure 4-2:

Ground Shaking Potential Map

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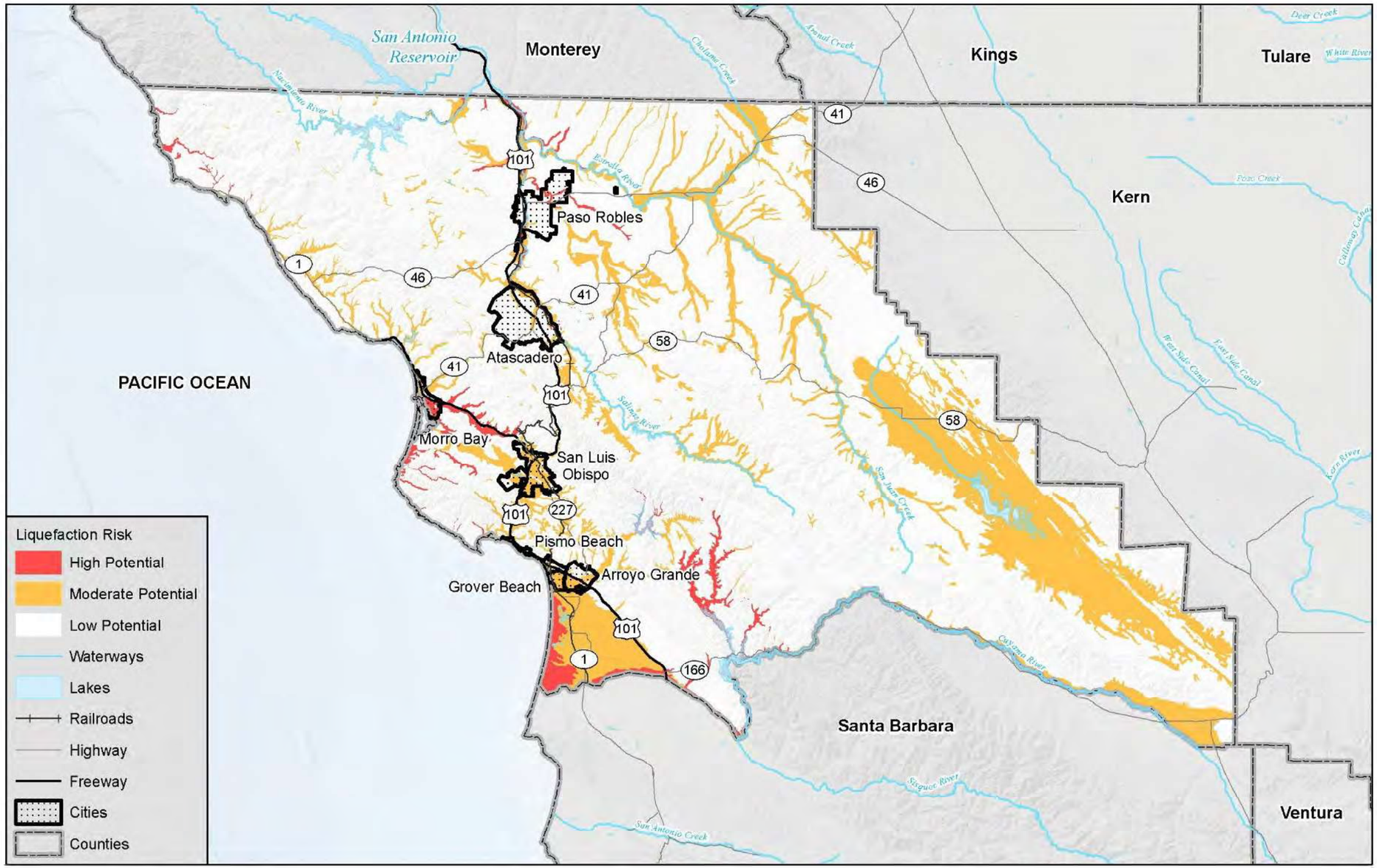
Figure 5-57 Liquefaction Susceptibility in San Luis Obispo County



Map compiled 2/2019;
intended for planning purposes only.
Data Source: San Luis Obispo County, US Census TIGER Database, CA Open Data Portal

Notes:
Map includes Figure 5-57 Liquefaction Susceptibility in San Luis Obispo County from San Luis Obispo County Local Hazard Mitigation Plan October 2019.

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4.2.2 Seismic Risk

Per the California Department of Conservation Earthquake Hazards Zone Application and the area maps included in the Hazard Plan AMWC's existing water distribution facilities were not identified to be within critical fault, liquefaction, or landslide hazard zones. In addition, the RRA completed for AMWC identified a low vulnerability to seismic events for existing facilities.

4.2.3 Mitigation

In the event of a system disruption to existing water supplies from an earthquake, fault rupture, or liquefaction response actions are described in AMWC's emergency response plan.

CHAPTER 5 SHORTAGE RESPONSE EFFECTIVENESS

All water shortage response actions are intended to reduce the water demand below the available water supply, during a water shortage event. To ensure that all water response actions are effective in reducing the demand to the level necessary, AMWC will routinely monitor water production levels monthly through the current in place meter system as described below in **Section 8.9**. If the shortage response actions are not effective in reducing water consumption to the required level AMWC will refine and update the water shortage response actions until effective.

5.1 Communication Protocols

AMCW will inform its shareholders, the public, and the necessary local, regional, and state government entities regarding any current or predicted water shortages based on the results of the Annual Water Supply and Demand Assessment in accordance with CWC §10632(a)(5). AMWC will also notify all necessary entities of any shortage response actions mandated in response to the Annual Assessment.

In the event of a water shortage due to an emergency AMWC will follow emergency communication protocols outlined in the Emergency Response Plan as described by Section 4.1.

Table 5-1: Stages of Water Shortage Contingency Plan – Communication Protocols

Shortage Level	Communication Protocol and Procedure	Recipient to be notified
1	General conservation measures and resources will be posted on the AMWC website, published in the newsletter.	Shareholders and the public
2	Bill stuffers will be distributed to all shareholders that inform of the Stage II status and mandatory water shortage response actions. The Stage II water shortage response actions will be included in the newsletter and posted on the AMWC website.	Shareholders and the public
3	Bill stuffers will be distributed to all shareholders that inform of the Stage III status and mandatory water shortage response actions. The Stage III water shortage response actions will be included in the newsletter and posted on the AMWC website.	Shareholders, public, all government entities
4	Bill stuffers will be distributed to all shareholders that inform of the Stage IV status and mandatory water shortage response actions. The Stage IV water shortage response actions will be included in the newsletter and posted on the AMWC website. A Public Notice will be issued to all customers and relevant government entities.	Shareholders, public, all government entities
5	Bill stuffers will be distributed to all shareholders that inform of the Stage V status and mandatory water shortage response actions. The Stage V water shortage response actions will be included in the newsletter and posted on the AMWC website. A Public Notice will be issued to all shareholders and relevant government entities.	Shareholders, public, all government entities
6	Bill stuffers will be distributed to all shareholders that inform of the Stage VI status and mandatory water shortage response actions. The Stage VI water shortage response actions will be included in the newsletter and posted on the ENCSD website. A Public Notice will be issued to all shareholders and relevant government entities.	Shareholders, public, all government entities

CHAPTER 6 COMPLIANCE AND ENFORCEMENT

6.1 Compliance and Enforcement

The following compliance and enforcement actions to be taken by AMWC under a declared water shortage condition were developed in accordance with CWC §10632(a)(6).

The AMWC Board of Directors may impose a special water waste surcharge against a shareholder's account and may temporarily or permanently discontinue or restrict, with a flow regulating device, water service to the affected property in the event that the shareholder or political entity is found by the Board to be in violation of any restrictions or prohibitions under a water shortage mandate declared by the Board.

Before taking such actions, the Board shall give any such shareholder thirty (30) days written notice and an opportunity to be heard and protest the finding of such violation and the imposition of such measure.

Table 6-1 summarizes the compliance measures that AMWC may implement during a declared water shortage. The Board has determined that the surcharges listed below reasonably compensate AMWC and its shareholders for all loss of water and other damages incurred and as will foster water conservation withing the service area. AMWC will implement the following penalties and charges for excessive water use within its service areas:

Table 6-1: Excessive Water Use Penalties and Charges

Shortage Level	Violation	Notices and Surcharges
1	1st	Written and oral notice (door hanger and follow-up call) identifying the nature of violation
1	2nd	Written notice including notification of possible surcharge and the possible installation of flow restrictor
1	3rd	The third violation within one year of first violation will incur a 50% surcharge based on current month's water usage added to current month's water bill
1	4th and Subsequent	The fourth and subsequent violations within one year of the first violation will incur a 100% surcharge based on the current month's water usage added to the current month's water bill plus installation of a flow restrictor

6.2 Legal Authorities

AMWC is governed by a five (5) member Board of Directors who are elected annually via proxy to serve one (1) year terms. The Board of Directors has the legal authority to implement and enforce any and all of the water shortage response actions of this WSCP.

In the event of a water shortage emergency where the ordinary demands and requirements of AMWC's shareholders cannot be satisfied without depleting AMWC's water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection the AMWC Board of Directors shall declare a water shortage emergency and implement and enforce the corresponding water shortage response actions in accordance with CWC Division 1, §350.

If the AMWC Board of Directors declares a water shortage emergency, AMWC shall coordinate with the City of Atascadero and the County of San Luis Obispo to issue a proclamation of a local emergency in accordance with CWC §10632(a)(7)(D).

6.3 Financial Consequences of WSCP Activation

AMWC recognizes that there are additional operating expenses associated with the various water shortage condition stages including, but not limited to: the hiring of a part-time water conservation technician; additional outreach and education; additional state reporting; additional monitoring of water use to gage the effectiveness of compliance efforts; responding to shareholder inquiries and complaints; investigating and monitoring of violations of watering restrictions and prohibitions; and increased facilities, pumping, and utility costs. In addition, water sales revenues will decrease due to lower water use by AMWC's shareholders.

AMWC has established water rates that allow reasonable working capital to be maintained. This working capital is reviewed by the Board of Directors in a monthly financial report. If projections indicate a depletion of working capital, the Board of Directors has sole discretion on adjusting water rates. In addition, the Board has and will adopt drought water rates to encourage conservation and offset revenue declines. To offset increased expenses, non-critical capital investments may be deferred.

6.4 Monitoring and Reporting

AMWC will monitor, analyze, and report on water production and use data in accordance with CWC §10632(a)(9).

All AMWC's shareholder accounts are metered. Meter classes include single-family residential, multi-family residential, mixed use, commercial, industrial, and landscape. Meters are manually read on a monthly basis.

Under all water supply conditions, potable water production figures are recorded daily by Water Treatment Operators. Totals are reported weekly to the General Manager. The General Manager and Chief Operator incorporates the information into a monthly water supply /demand report to the Board of Directors.

During a Stage 1 or Stage 2 water shortage, the General Manager compares the monthly production to the target monthly production to verify that the reduction goal is being met. The General Manager presents monthly reports to the Board of Directors. If reduction goals are not met, the General Manager will notify the Board of Directors so that corrective action can be taken.

During a Stage 3 water shortage or Stage 4, the procedure listed above are followed, with the addition of a bi-monthly production report to the Board of Directors.

During a Stage 5, 6, or an emergency event, reports will also be provided weekly to the Board of Directors. During emergency shortages, production figures are reported to the General Manager regularly or as needed.

CHAPTER 7 WSCP REFINEMENT, ADOPTION AND SUBMITTAL

7.1 WSCP Refinement Procedures

The WSCP is intended to implement water shortage mitigation strategies that can quickly and effectively reduce water demand during a water shortage event in accordance with CWC §10632(a)(10). The water shortage response actions listed in **Table 3-2** will be routinely monitored as outlined above. If shortage response actions are not effective in meeting the required water use reduction the AMWC Board of Directors will have the ability to amend the WSCP as deemed necessary.

7.1.1 Special Water Feature Distinction

AMWC specifically distinguishes between "Decorative Water Features" and all other water features in the WSCP. In the event of a water shortage potable water use for decorative water features such as fountains is prohibited, and only re-circulated water can be used to operate ornamental fountains or other decorative water features.

7.2 Plan Adoption, Submittal and Availability

The Notice of the public hearing, held during the June 2021 Board meeting at AMWC's office, was sent to the City of Atascadero and County of San Luis Obispo on April 1, 2021, in accordance with CWC §10632(a)(c). A copy of the letters from AMWC to the City and County are included in Appendix C of this WSCP.

Table 7-1: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
City of Atascadero	☑	☑
City of Paso Robles	☑	☑
County Name	**60 Day Notice**	**Notice of Public Hearing**
San Luis Obispo County	☑	☑

A public adoption hearing was held on June 9, 2021 at AMWC's office. The public hearing provided opportunity for community input. The WCSP update was adopted by AMWC during the June 2021 Board meeting by approval of Resolution 2021-XX. A copy of the resolution can be viewed in Appendix D.

Within 30 days of adoption, AMWC will submit the WSCP update to the DWR for review. During the DWR review process AMWC will coordinate with DWR reviewers as necessary. AMWC will use the online submittal tool located at www.wuedata.water.ca.gov.secure/ developed by the DWR to electronically submit the WSCP update. Confirmation of the electronic submittal will be included in Appendix E.

Within 30 days of adoption, AMWC will submit a CD of the adopted WSCP to the California State Library at the following address:

California State Library
Government Publications Section
P.O. Box 942867
Sacramento, CA 94237-001
Attention: Coordinator, Urban Water Management Plans

A copy of the transmittal to the State Library will be included in Appendix D.

Within 30 days of adoption, AMWC will submit an electronic copy of the adopted WSCP update to the City of Atascadero, the City of Paso Robles and the County of San Luis Obispo electronically in accordance with CWC Section 10632(a)(c). A copy of the transmittals to said agencies will be included in Appendix B.

Commencing no later than August 15, 2021, AMWC will have a copy of the WSCP update available for public review at the AMWC office (see address below) during normal business hours.

Atascadero Mutual Water Company
5005 El Camino Real
Atascadero, CA 93422
Phone – 805.466.9004

Appendix H. 60-DAY NOTIFICATION

TO CITIES AND COUNTIES

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

April 6, 2021

Ms. Rachelle Rickard
City Manager
City of Atascadero
6500 Palma Avenue
Atascadero, CA 93422

Subject: Atascadero Mutual Water Company Urban Water Master Plan Update

Dear Ms. Rickard:

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. AMWC is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for AMWC's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within the AMWC service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. AMWC plans to make a copy of the public draft 2020 UWMP and WSCP available for public review by **May 10, 2021** via AMWC's website, www.amwc.us and office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

AMWC is scheduled to hold a public hearing on the 2020 UWMP and WSCP at its June 2021 Board meeting. The meeting day, time, and webinar registration information will be posted on the AMWC website.

AMWC encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public hearing.

Please send comments to: Rob Lepore, GISP
(805) 904-6530
rlepore@mknassociates.us

Thank you for your involvement with AMWC's 2020 UMWP and WSCP update process. If you have any questions, please contact John Neil at (805) 466-2428.

Sincerely,

John Neil
General Manager

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

April 6, 2021

Mr. Wade Horton
San Luis Obispo County Administrator
County Government Center
1055 Monterey Street
San Luis Obispo, CA 93408

Subject: Atascadero Mutual Water Company Urban Water Master Plan Update

Dear Mr. Horton:

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. AMWC is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for AMWC's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within the AMWC service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. AMWC plans to make a copy of the public draft 2020 UWMP and WSCP available for public review by **May 10, 2021** via AMWC's website, www.amwc.us and office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

AMWC is scheduled to hold a public hearing on the 2020 UWMP and WSCP at its June 2021 Board meeting. The meeting day, time, and webinar registration information will be posted on the AMWC website.

AMWC encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public hearing.

Please send comments to: Rob Lepore, GISP
(805) 904-6530
rlepore@mknassociates.us

Thank you for your involvement with AMWC's 2020 UMWP and WSCP update process. If you have any questions, please contact John Neil at (805) 466-2428.

Sincerely,

John Neil
General Manager

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

April 6, 2021

Mr. John Neil
General Manager
Atascadero Basin Groundwater Basin Sustainability Agency
5005 El Camino Real
Atascadero, CA 93422

Subject: Atascadero Mutual Water Company Urban Water Master Plan Update

Dear Mr. Diodati:

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. AMWC is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for AMWC's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within the AMWC service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. AMWC plans to make a copy of the public draft 2020 UWMP and WSCP available for public review by **May 10, 2021** via AMWC's website, www.amwc.us and office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

AMWC is scheduled to hold a public hearing on the 2020 UWMP and WSCP at its June 2021 Board meeting. The meeting day, time, and webinar registration information will be posted on the AMWC website.

AMWC encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public hearing.

Please send comments to: Rob Lepore, GISP
(805) 904-6530
rlepore@mknassociates.us

Thank you for your involvement with AMWC's 2020 UMWP and WSCP update process. If you have any questions, please contact John Neil at (805) 466-2428.

Sincerely,

John Neil
General Manager

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

April 6, 2021

Kirk Gonzales, PE
Interim Water Resources Manager
City of Paso Robles
1000 Spring St.
Paso Robles, CA 93446

Subject: Atascadero Mutual Water Company Urban Water Master Plan Update

Dear Mr. Gonzales,

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. AMWC is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for AMWC's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within the AMWC service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. AMWC plans to make a copy of the public draft 2020 UWMP and WSCP available for public review by **May 10, 2021** via AMWC's website, www.amwc.us and office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

AMWC is scheduled to hold a public hearing on the 2020 UWMP and WSCP at its June 2021 Board meeting. The meeting day, time, and webinar registration information will be posted on the AMWC website.

AMWC encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public hearing.

Please send comments to: Rob Lepore, GISP
(805) 904-6530
rlepore@mknassociates.us

Thank you for your involvement with AMWC's 2020 UMWP and WSCP update process. If you have any questions, please contact John Neil at (805) 466-2428.

Sincerely,

John B Neil

Josh Neil
General Manager

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

April 6, 2021

Bettina Mayer, PE
District Engineer
Templeton Community Service District
420 Crocker Street
Templeton, CA 93465

Subject: Atascadero Mutual Water Company Urban Water Master Plan Update

Dear Ms. Mayer,

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. AMWC is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for AMWC's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within the AMWC service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. AMWC plans to make a copy of the public draft 2020 UWMP and WSCP available for public review by **May 10, 2021** via AMWC's website, www.amwc.us and office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

AMWC is scheduled to hold a public hearing on the 2020 UWMP and WSCP at its June 2021 Board meeting. The meeting day, time, and webinar registration information will be posted on the AMWC website.

AMWC encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public hearing.

Please send comments to: Rob Lepore, GISP
(805) 904-6530
rlepore@mknassociates.us

Thank you for your involvement with AMWC's 2020 UMWP and WSCP update process. If you have any questions, please contact John Neil at (805) 466-2428.

Sincerely,

John Neil
General Manager

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

April 6, 2021

Phillip Koziel
Atascadero State Hospital Public Information Officer
Atascadero State Hospital
10333 El Camino Real
Atascadero, CA 93422

Subject: Atascadero Mutual Water Company Urban Water Master Plan Update

Dear Mr. Koziel,

Atascadero Mutual Water Company (AMWC) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2020 cycle. AMWC is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for AMWC's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within the AMWC service area over a 20-year planning horizon.

AMWC encourages local agencies, the public, and other interested parties in its service area to participate in the update process. AMWC plans to make a copy of the public draft 2020 UWMP and WSCP available for public review by **May 10, 2021** via AMWC's website, www.amwc.us and office, 5005 El Camino Real, Atascadero, Monday through Friday, 8 a.m.-4 p.m.

AMWC is scheduled to hold a public hearing on the 2020 UWMP and WSCP at its June 2021 Board meeting. The meeting day, time, and webinar registration information will be posted on the AMWC website.

AMWC encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public hearing.

Please send comments to: Rob Lepore, GISP
(805) 904-6530
rlepore@mknassociates.us

Thank you for your involvement with AMWC's 2020 UMWP and WSCP update process. If you have any questions, please contact John Neil at (805) 466-2428.

Sincerely,

John Neil
General Manager

Appendix I. NEWSPAPER NOTIFICATION

5005 EL CAMINO REAL • P.O. BOX 6075 • ATASCADERO, CA 93423 • (805) 466-2428

Atascadero Mutual Water Company

ESTABLISHED 1913

FOR IMMEDIATE RELEASE

Date: May 10, 2021
Contact: John Neil, General Manager
Atascadero Mutual Water Company
5005 El Camino Real, Atascadero, CA 93422
Phone: (805) 464-5351 – Email: jneil@amwc.us

2020 Urban Water Management Plan and Water Shortage Contingency Plan

Atascadero Mutual Water Company (AMWC) is currently in the process of preparing a Water Shortage Contingency Plan (WSCP) and updating its Urban Water Management Plan (UWMP) and a Water Shortage Contingency Plan (WSCP) as required by the California Department of Water Resources.

Public drafts of the WSCP and UWMP update are currently available for review by appointment at AMWC's Administration office at 5005 El Camino Real, Atascadero and on its website at www.amwc.us. The AMWC Board will consider adopting these plans at its meeting on June 10, 2021.

The WSCP and UWMP update are prepared by urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands over a 20-year planning horizon. The plans include an analysis of projected population growth, current and future water demands, as well as water supply and pumping data.

AMWC encourages local agencies, the public, and other interested parties to participate in the development of the 2020 UWMP update by providing written comments prior to the June 10 board meeting. Written comments can be emailed to jneil@amwc.us or mailed to Atascadero Mutual Water Company, P.O. Box 6075, Atascadero, CA 93423 no later than May 26, 2021.

For more information please contact AMWC at (805) 466-2428 or visit www.amwc.us.

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ATTENTION DIABETICS! Save money on your diabetic supplies! Convenient home shipping for monitors, test strips, insulin pumps, catheters and more! To learn more, call now! 1-855-702-3408. (Cal-SCAN)

The difference in winning and losing market share is how businesses use their advertising dollars. We deliver the largest consortium of trusted news publishers in California and beyond. For more info on multi-market solutions call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

Portable Oxygen Concentrator May Be Covered by Medicare! Reclaim independence and mobility with the compact design and long-lasting battery of Inogen One. Free information kit! Call 844-327-2824. (Cal-SCAN)

Become a Published Author. We want to Read Your Book! Dorrance Publishing-Trusted by Authors Since 1920 Book Manuscript submissions currently being reviewed. Comprehensive Services: Consultation, Production, Promotion and Distribution. Call for Your Free Author's Guide 1-877-538-9554 or visit http:dorranceinfo.com/Cali (Cal-SCAN)

Life Alert. One press of a button sends help FAST, 24/7! At home and on the go. Mobile Pendant with GPS. FREE First Aid Kit (with subscription.) CALL 833-518-
1049 FREE Brochure. (Cal-SCAN)

The difference in winning and losing market share is how businesses use their advertising dollars. Mark Twain said, "Many a small thing has been made large by the right kind of advertising". So why spend your hard-earned dollars on social media where you already have an audience? For more info call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

RETIRED COUPLE $$$$ for business purpose Real Estate loans. Credit unimportant. V.I.P. Trust Deed Company www.viploan.com Call 1-818-248-0000. Broker-principal DRE 01041073. No consumer loans. (Cal- SCAN)

The difference in winning and losing market share is how businesses use their advertising dollars. CNPA's Advertising Services' power to connect to nearly 13 million of the state's readers who are an engaged audience, makes our services an indispensable marketing solution. For more info call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

Lowest Prices on Health Insurance. We have the best rates from top companies! Call Now! 1-888-989-4807. (Cal-SCAN)

The difference in winning and losing an election is how campaign dollars are spent. Get the best ROI by using our deep relationships in every community in California. Our on-the-ground knowledge is indispensable to campaigns that want results. For more info on multi-market ethnic and non-ethnic solutions call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

Attention: Oxygen Users! Gain freedom with a Portable Oxygen Concentrator! No more heavy tanks and refills! Guaranteed Lowest Prices! Call the Oxygen Concentrator Store: 1-844-653-7402 (Cal-SCAN)

SAVE BIG on HOME INSURANCE! Compare 20 A-rated insurances companies. Get a quote within minutes. Average savings of $444/year! Call 1-844-410-9609! (M-F 8am-8pm Central) (Cal-SCAN)

Eliminate gutter cleaning forever! LeafFilter, the most advanced debris- blocking gutter protection. Schedule a FREE LeafFilter estimate today. 15% off Entire Purchase. 10% Senior & Military Discounts. Call 1-855-424-7581 (Cal-SCAN)

INVENTORS - FREE INFORMATION PACKAGE. Have your product idea developed affordably by the Research & Development pros and presented to manufacturers. Call 1-844-752-8272 for a Free Idea Starter Guide. Submit your
idea for a free consultation. (Cal-SCAN)

DIRECTV - Watch your favorite live sports, news and entertainment anywhere. More top premium channels than DISH. Restrictions apply. Call IVS - 1-888-641-5762. (Cal-SCAN)

407 AUTOS

DONATE YOUR CAR TO KIDS Fast Free Pickup – Running or Not - 24 Hour Response - Maximum Tax Donation – Help Find Missing Kids! Call 1-888-491-1453. (CalSCAN)

DONATE YOUR CAR OR TRUCK TO HERITAGE FOR THE BLIND. FREE 3 Day Vacation, Tax Deductible, Free Towing, All Paperwork Taken Care of. Call 1-844-491-2884 (Cal-SCAN)

DONATE YOUR CAR, BOAT OR RV to receive a major tax deduction. Help homeless pets. Local, IRS Recognized. Top Value Guaranteed. Free Estimate and Pickup. LAPETSALIVE.ORG 1-833-772-2632 (Cal-SCAN)

WANTED! Old Porsche 356/911/912 for restoration by hobbyist 1948-1973 Only. Any condition, top $ paid! PLEASE LEAVE MESSAGE 1-707-339-5994. Email: porscherestoration@yahoo.com (CalSCAN)

PUBLIC NOTICE

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211002
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: HITE FILMING, HITE TV, 631 ELENA ST, MORRO BAY, CA 93442, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: WILLIAM JOSEPH HEIDT, 631 ELENA ST, MORRO BAY, CA 93442
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ WILLIAM JOSPEH HEIDT
This statement was filed with the County Clerk of San Luis Obispo County on 04/20/2021
TRANSACTING BUSINESS DATE: 02/01/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By GUGALDE, Deputy
New Fictitious Business Name Statement, Expires 04/20/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 257

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210991
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: PALOMAR INN, 1601 SHELL BEACH RD. PISMO BEACH, CA 93449, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: DIWALI INC, 460 DENNIS LN, ARROYO GRANDE, CA 93420
If Corporation or LLC- CA State of Incorporation/Organization CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ DIWALI INC, JASHVANT PATEL, MEMBER
This statement was filed with the County Clerk of San Luis Obispo County on 04/19/2021
TRANSACTING BUSINESS DATE: 04/15/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By SKING, Deputy
New Fictitious Business Name Statement, Expires 04/19/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 258

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210957
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: URIBE LABOR CONTRACTOR, 1142 PATICIA LN, PASO ROBLES, CA 93446, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: ANTONIO URIBE, 1142 PATRICIA LN, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ ANTONIO URIBE
This statement was filed with the County Clerk of San Luis Obispo County on 04/15/2021
TRANSACTING BUSINESS DATE: NOT APPLICABLE
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By JAANDERSON, Deputy
New Fictitious Business Name Statement, Expires 04/15/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 259

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210999
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: MK CONSTRUCTION, 3625 COLIMA ROAD, ATASCADERO, CA 93422, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: MARK EDWIN MORRISON, 3625 COLIMA ROAD, ATASCADERO, CA 93422
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ MARK EDWIN MORRISON, OWNER
This statement was filed with the County Clerk of San Luis Obispo County on 04/20/2021
TRANSACTING BUSINESS DATE: 04/20/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By NBALSEIRO, Deputy
New Fictitious Business Name Statement, Expires 04/20/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 260

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211031
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: WINDROSE FARM, 5750 EL PHARO DRIVE, PASO ROBLES, CA 93446, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A MARRIED COUPLE: WILLIAM BROWN SPENCER, 5750 EL PHARO DRIVE, PASO ROBES, CA 93446, BARBARA HUNTER-SPENCER, 5750 EL PHARO DRIVE, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ WILLIAM BROWN SPENCER
This statement was filed with the County Clerk of San Luis Obispo County on 04/23/2021
TRANSACTING BUSINESS DATE: 11/01/1998
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By GUGALDE, Deputy
New Fictitious Business Name Statement, Expires 04/23/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 261

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211042
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: GOLDEN STATE CANNA, 2115 WILLOW ROAD, ARROYO GRANDE, CA 93420, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: GOLDEN STATE CANNABIS, INC., 5111 TELEGRAPH AVE, SUITE 202, OAKLAND, CA 94609
If Corporation or LLC- CA State of Incorporation/Organization CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ GOLDEN STATE CANNABIS, INC., LOUIS SAMUEL - CEO
This statement was filed with the County Clerk of San Luis Obispo County on 04/23/2021
TRANSACTING BUSINESS DATE: 01/01/2018
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By JAANDERSON, Deputy
New Fictitious Business Name Statement, Expires 04/23/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 264

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211056
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: LA PLAZA, 6490 EL CAMINO REAL, ATASCADERO, CA 93422, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A LIMITED LIABILITY COMPANY: Z 3 LLC, 6100 EL CAMINO REAL SUITE C, ATASCADERO, CA 93422
If Corporation or LLC- CA State of Incorporation/Organization CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ Z3LLC, MAX ZAPPAS, COO
This statement was filed with the County Clerk of San Luis Obispo County on 04/26/2021
TRANSACTING BUSINESS DATE: 03/13/2015
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By MSTILETTO, Deputy
New Fictitious Business Name Statement, Expires 04/26/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 265

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210940
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: RIVERSIDE RETREAT, 4505 SYCAMORE RD., ATASCADERO, CALIFORNIA 93422, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A MARRIED COUPLE: LAURA LEA HASCH, 4505 SYCAMORE RD., ATASCADERO, CA 93422, RAYMOND PAUL HASCH, 4505 SYCAMORE ROAD, ATASCADERO, CA 93422
If Corporation or LLC- CA State of Incorporation/Organization CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ LAURA LEA HASCH
This statement was filed with the County Clerk of San Luis Obispo County on 04/14/2021
TRANSACTING BUSINESS DATE: NOT APPLICABLE
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By GUGALDE, Deputy
New Fictitious Business Name Statement, Expires 04/14/2026
PUB: 04/29, 05/06, 05/13, 05/20/2021
LEGAL CM 267

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211110
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: AE CLEAN, 928 SOKA WAY, SAN MIGUEL, CA 93451, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: ASHLEY NICOLE ECKLES, 928 SOKA WAY, SAN MIGUEL, CA 93451
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ ASHLEY ECKLES, OWNER
This statement was filed with the County Clerk of San Luis Obispo County on 04/30/2021
TRANSACTING BUSINESS DATE: 04/23/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By JAANDERSON, Deputy
New Fictitious Business Name Statement, Expires 04/30/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 272

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210941
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: DR. JACK'S COASTAL SPINE & SPORT, 502 SPRING STREET, PASO ROBLES, CA , SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: JACK HEASLET CHIROPRACTIC, INC., 502 SPRING STREET, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization
CALIFORNIA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ JACK HEASLET CHIROPRACTIC, INC., JACK HEASLET, PRESIDENT
This statement was filed with the County Clerk of San Luis Obispo County on 04/14/2021
TRANSACTING BUSINESS DATE: 01/06/2006
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By GUGALDE, Deputy
New Fictitious Business Name Statement, Expires 04/14/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 273

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211092
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: K-MAN CYCLERY, 9530 EL CAMINO REAL, ATASCADERO, CA 934223, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: KEITH BRYANT SCHMIDT, 6900 SAN GABRIEL RD, ATASCADERO, CA 93422
If Corporation or LLC- CA State of Incorporation/Organization
CALIFORNIA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ KEITH BRYANT SCHMIDT, PRESIDENT
This statement was filed with the County Clerk of San Luis Obispo County on 04/29/2021
TRANSACTING BUSINESS DATE: NOT APPLICABLE
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By MSTILETTO, Deputy
New Fictitious Business Name Statement, Expires 04/29/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 274

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211011
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: PASO ROBLES BREWING COMPANY, PASO ROBLES BREW CO, PASO BREW, PASO BREW CO, PRBC, 201 SPRING STREET, PASO ROBLES, CA 93446, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A LIMITED LIABILITY COMPANY: PASO ROBLES BREW CO, LLC, 201 SPRING STREET, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ PASO ROBLES BREW CO, LLC, GENERAL MANAGER-RYAN BONNER
This statement was filed with the County Clerk of San Luis Obispo County on 04/21/2021
TRANSACTING BUSINESS DATE: 12/03/2020
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By ABAUTISTA, Deputy
New Fictitious Business Name Statement, Expires 04/21/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 275

FICTITIOUS BUSINESS NAME STATEMENT

Atascadero Mutual Water Company (AMWC)
PUBLIC NOTICE
2020 Water Shortage Contingency Plan and Urban Water Management Plan Update

Atascadero Mutual Water Company (AMWC) is currently in the process of preparing a Water Shortage Contingency Plan (WSCP) and updating its Urban Water Management Plan (UWMP) as required by the California Department of Water Resources.

Public drafts of the WSCP and UWMP update are currently available for review by appointment at AMWC's administration office at 5005 El Camino Real, Atascadero, or on its website at www.amwc.us. The AMWC Board will consider adopting these plans at its meeting on June 10, 2021. Copies of the plans will also be emailed upon request.

The WSCP and UWMP update are prepared by urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands over a 20-year planning horizon. The plans include an analysis of projected population growth, current and future water demands, as well as water supply and pumping data.

AMWC encourages local agencies, the public, and other interested parties to participate in the development these plans by providing written comments prior to the June 10 board meeting. Written comments can be emailed to jneil@amwc.us or mailed to Atascadero Mutual Water Company, PO Box 6075, Atascadero, CA 93423 no later than May 26, 2021.

For more information, contact AMWC at (805) 466-2428 or visit www.amwc.us.

CITY OF ATASCADERO
SAN GABRIEL AND SAN MARCOS ROAD PAVEMENT REHABILITATION PROJECT, Project No. C2020R05

NOTICE IS HEREBY GIVEN THAT The City of Atascadero will receive bids for the San Gabriel and San Marcos Road Pavement Rehabilitation Project at the Atascadero City Hall, 6500 Palma Avenue, Atascadero, CA until June 8, 2021 at 3:00 P.M., when they will be publicly opened.

Proposals received after said time will not be considered. Proposals shall be submitted in a sealed envelope plainly marked with the project title, bidder's name, and address.

The Contractor must possess a valid CLASS A CONTRACTOR'S LICENSE at the time of award. This project is subject to the payment of Prevailing Wages, therefore the Contractor shall pay all wages and penalties as required by applicable law. Per SB 854 (Stat. 2014, Chapter 28), no contractor or subcontractor may work or be listed on a bid proposal unless registered with the DIR. Every bid must be accompanied by a certified check/cashier's check or bidder's bond for 10% of the bid amount, payable to the City of Atascadero.

Bid packages may be downloaded for a fee of $15.00 on the City website, www.atascadero.org or at www.QuestCDN.com using project number eBid #7813346.

Question may be directed to the City of Atascadero at (805) 470-3180 or (805) 470-3486 or DPatterson@atascadero.org or TRamirez@atascadero.org

Run dates: May 20, 2021 and May 27, 2021

McClatchy

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
52742	64837	Print Legal Ad - IPL0023954		$204.48	1	4.71

Attention: Rose Babcock

ATASCADERO MUTUAL WATER CO.
PO Box 6075
Atascadero, CA 93423

PUBLIC NOTICE
2020 Water Shortage Contingency Plan and Urban Water Management Plan Update

Atascadero Mutual Water Company (AMWC) is currently in the process of preparing a Water Shortage Contingency Plan (WSCP) and updating its Urban Water Management Plan (UWMP) as required by the California Department of Water Resources.

Public drafts of the WSCP and UWMP update are currently available for review by appointment at AMWC's administration office at 5005 El Camino Real, Atascadero, or on its website at www.amwc.us. The AMWC Board will consider adopting these plans at its meeting on June 10, 2021. Copies of the plans will also be emailed upon request.

The WSCP and UWMP update are prepared by urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands over a 20-year planning horizon. The plans include an analysis of projected population growth, current and future water demands, as well as water supply and pumping data.

AMWC encourages local agencies, the public, and other interested parties to participate in the development these plans by providing written comments prior to the June 10 board meeting. Written comments can be emailed to jneil@amwc.us or mailed to Atascadero Mutual Water Company, PO Box 6075, Atascadero, CA 93423 no later than May 26, 2021.

For more information, contact AMWC at (805) 466-2428 or visit www.amwc.us.

IPL0023954
May 18,25 2021

In The Superior Court of The State of California
In and for the County of San Luis Obispo

No. of Insertions: 2
Beginning Issue of: 05/18/2021
Ending Issue of: 05/25/2021

Jane E. Durand

Legals Clerk

STATE OF TEXAS)
SS
County of Dallas)

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen and not interested in the above entitled matter; I am now, and at all times embraced in the publication herein mentioned was, the principal clerk of the printers and publishers of The Tribune, a newspaper of general Circulation, printed and published daily at the City of San Luis Obispo in the above named county and state; that notice at which the annexed clippings is a true copy, was published in the above-named newspaper and not in any supplement thereof - on the following dates to wit; From 05/18/2021 To 05/25/2021 that said newspaper was duly and regularly ascertained and established a newspaper of general circulation by Decree entered in the Superior Court of San Luis Obispo County, State of California, on June 9, 1952, Case #19139 under the Government Code of the State of California.

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Amanda Grisham

Notary Public in and for the state of Texas, residing in Dallas County

AMANDA DAWN GRISHAM
My Notary ID # 132031326
Expires May 30, 2023

Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!

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100 ANNOUNCEMENTS

Moving Sale
Saturday May 29th
7:30 am to 2:30 pm
9110 Atascadero Ave. Atas
Everything Must Go!
File cabinets are free!

ATTENTION DIABETICS! Save money on your diabetic supplies! Convenient home shipping for monitors, test strips, insulin pumps, catheters and more! To learn more, call now! 1-855-702-3408. (Cal-SCAN)

The difference in winning and losing market share is how businesses use their advertising dollars. CNPA's Advertising Services' power to connect to nearly 13 million of the state's readers who are an engaged audience, makes our services an indispensable marketing solution. For more info call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

Portable Oxygen Concentrator May Be Covered by Medicare! Reclaim independence and mobility with the compact design and long-lasting battery of Inogen One. Free information kit! Call 844-327-2824. (Cal-SCAN)

Become a Published Author. We want to Read Your Book! Dorrance Publishing-Trusted by Authors Since 1920 Book Manuscript submissions currently being reviewed. Comprehensive Services: Consultation, Production, Promotion and Distribution. Call for Your Free Author's Guide 1-877-538-9554 or visit http:dorranceinfo.com/Cali (Cal-SCAN)

Life Alert. One press of a button sends help FAST, 24/7! At home and on the go. Mobile Pendant with GPS. FREE First Aid Kit (with subscription.) CALL 833-518-1049 FREE Brochure. (Cal-SCAN)

The difference in winning and losing market share is how businesses use their advertising dollars. Mark Twain said, "Many a small thing has been made large by the right kind of advertising". So why spend your hard-earned dollars on social media where you already have an audience? For more info call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

RETIRED COUPLE $$$$ for business purpose Real Estate loans. Credit unimportant. V.I.P. Trust Deed Company www.viploan.com Call 1-818-248-0000. Broker-principal DRE 01041073. No consumer loans. (Cal- SCAN)

The difference in winning and losing market share is how businesses use their advertising dollars. CNPA's Advertising Services' power to connect to nearly 13 million of the state's readers who are an engaged audience, makes our services an indispensable marketing solution. For more info call Cecelia @ (916) 288-6011 or cecelia@cnpa.com

SAVE BIG on HOME INSURANCE! Compare 20 A-rated insurances companies. Get a quote within minutes. Average savings of $444/year! Call 1-844-410-9609! (M-F 8am-8pm Central) (Cal-SCAN)

ARE YOU BEHIND $10k OR MORE ON YOUR TAXES? Stop wage & bank levies, liens & audits, unfiled tax returns, payroll issues, & resolve tax debt FAST. Call 1-855-970-2032 (CalSCAN)

Eliminate gutter cleaning forever! LeafFilter, the most advanced debris- blocking gutter protection. Schedule a FREE LeafFilter estimate today. 15% off Entire Purchase. 10% Senior & Military Discounts. Call 1-855-424-7581 (Cal-SCAN)

INVENTORS - FREE INFORMATION PACKAGE. Have your product idea developed affordably by the Research & Development pros and presented to manufacturers. Call 1-844-752-8272 for a Free Idea Starter Guide. Submit your idea for a free consultation. (Cal-SCAN)

DIRECTV - Watch your favorite live sports, news and entertainment anywhere. More top premium channels than DISH. Restrictions apply. Call IVS - 1-888-641-5762. (Cal-SCAN)

FREON WANTED: We pay $$$ for cylinders and cans. R12 R500 R11 R113 R114. Convenient. Certified Professionals. Call 312-291-9169 or visit RefrigerantFinders.com (Cal-SCAN)

407 AUTOS

DONATE YOUR CAR TO KIDS Fast Free Pickup – Running or Not - 24 Hour Response - Maximum Tax Donation – Help Find Missing Kids! Call 1-888-491-1453. (CalSCAN)

DONATE YOUR CAR OR TRUCK TO HERITAGE FOR THE BLIND. FREE 3 Day Vacation, Tax Deductible, Free Towing, All Paperwork Taken Care of. Call 1-844-491-2884 (Cal-SCAN)

DONATE YOUR CAR, BOAT OR RV to receive a major tax deduction. Help homeless pets. Local, IRS Recognized. Top Value Guaranteed. Free Estimate and Pickup. LAPETSALIVE.ORG 1-833-772-2632 (Cal-SCAN)

WANTED! Old Porsche 356/911/912 for restoration by hobbyist 1948-1973 Only. Any condition, top $ paid! PLEASE LEAVE MESSAGE 1-707-339-5994. Email: porscherestoration@yahoo.com (CalSCAN)

PUBLIC NOTICE

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211110
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: AE CLEAN, 928 SOKA WAY, SAN MIGUEL, CA 93451, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: ASHLEY NICOLE ECKLES, 928 SOKA WAY, SAN MIGUEL, CA 93451
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ ASHLEY ECKLES, OWNER
This statement was filed with the County Clerk of San Luis Obispo County on 04/30/2021
TRANSACTING BUSINESS DATE: 04/23/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By JAANDERSON, Deputy
New Fictitious Business Name Statement, Expires 04/30/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 272

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210941
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: DR. JACK'S COASTAL SPINE & SPORT, 502 SPRING STREET, PASO ROBLES, CA , SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: JACK HEASLET CHIROPRACTIC, INC., 502 SPRING STREET, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization
CALIFORNIA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ JACK HEASLET CHIROPRACTIC, INC., JACK HEASLET, PRESIDENT
This statement was filed with the County Clerk of San Luis Obispo County on 04/14/2021
TRANSACTING BUSINESS DATE: 01/06/2006
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By GUGALDE, Deputy
New Fictitious Business Name Statement, Expires 04/14/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 273

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211092
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: K-MAN CYCLERY, 9530 EL CAMINO REAL, ATASCADERO, CA 934223, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: KEITH BRYANT SCHMIDT, 6900 SAN GABRIEL RD, ATASCADERO, CA 93422
If Corporation or LLC- CA State of Incorporation/Organization
CALIFORNIA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ KEITH BRYANT SCHMIDT, PRESIDENT
This statement was filed with the County Clerk of San Luis Obispo County on 04/29/2021
TRANSACTING BUSINESS DATE: NOT APPLICABLE
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By MSTILETTO, Deputy
New Fictitious Business Name Statement, Expires 04/29/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 274

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211011
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: PASO ROBLES BREWING COMPANY, PASO ROBLES BREW CO, PASO BREW, PASO BREW CO, PRBC, 201 SPRING STREET, PASO ROBLES, CA 93446, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A LIMITED LIABILITY COMPANY: PASO ROBLES BREW CO, LLC, 201 SPRING STREET, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization
CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ PASO ROBLES BREW CO, LLC, GENERAL MANAGER-RYAN BONNER
This statement was filed with the County Clerk of San Luis Obispo County on 04/21/2021
TRANSACTING BUSINESS DATE: 12/03/2020
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By ABAUTISTA, Deputy
New Fictitious Business Name Statement, Expires 04/21/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 275

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211090
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: DIANA CLEANING, 1496 MENTONE AVE, GROVER BEACH, CA 93433, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: MILZA DILIA SOTO, 1496 MENTONE AVE., GROVER BEACH, CA 93433
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ MILZA DILIA SOTO
This statement was filed with the County Clerk of San Luis Obispo County on 04/28/2021
TRANSACTING BUSINESS DATE: 03/31/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By GUGALDE, Deputy
New Fictitious Business Name Statement, Expires 04/28/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 276

FICTITIOUS BUSINESS NAME STATEMENT

File No 20211073
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: 5-C ENTERPRISES, 1035 LOST SPRINGS LANE, PASO ROBLES, CA 93446, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: AN INDIVIDUAL: ALEXANDRA MARIE COOK, 1035 LOST SPRINGS LANE, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ ALEXANDRA MARIE COOK, OWNER/OPERATOR
This statement was filed with the County Clerk of San Luis Obispo County on 04/27/2021
TRANSACTING BUSINESS DATE: 04/27/2021
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By JAANDERSON, Deputy
New Fictitious Business Name Statement, Expires 04/27/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 277

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210936
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: CENTRAL COAST CNC, 500 LINNE RD, PASO ROBLES, CA 93446, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: WATERMAN & WILSON, 3500 DRY CREEK RD, PASO ROBLES, CA 93446
If Corporation or LLC- CA State of Incorporation/Organization CA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ BROCK WATERMAN, WATERMAN & WILSON, PRES
BROCK WATERMAN
This statement was filed with the County Clerk of San Luis Obispo County on 04/13/2021
TRANSACTING BUSINESS DATE: 01/01/2015
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By JAANDERSON, Deputy
New Fictitious Business Name Statement, Expires 04/13/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 278

STATEMENT OF ABANDONMENT OF USE OF FICTITIOUS BUSINESS NAME STATEMENT

NEW FILE NO. 20210988
OLD FILE NUMBER. 20201870
FICTITIOUS BUSINESS NAME(S) TO BE ABANDONED: ACE BAIL BONDS AGENCY, 9009 SAN RAFAEL ROAD, ATASCADERO, CA 93422, SAN LUIS OBISPO COUNTY.
THE FICTITIOUS BUSINESS NAME WAS FILED IN SAN LUIS OBISPO COUNTY ON: 09-15-2020
THE FOLLOWING PERSON(S) HAVE ABANDONED THE USE OF THE FICTITIOUS BUSINESS NAME: LINDA MINTEY, 9009 SAN RAFAEL ROAD, ATASCADERO, CA 93422
THIS BUSINESS WAS CONDUCTED BY: AN INDIVIDUAL: LINDA MINTEY
THIS STATEMENT WAS FILED WITH THE COUNTY CLERK OF SAN LUIS OBISPO COUNTY ON: 04/19/2021
CERTIFICATION I HERBY CERTIFY THAT THIS COPY IS A CORRECT COPY OF THE ORIGINAL STATEMENT ON FILE IN MY OFFICE.
TOMMY GONG,
COUNTY CLERK
BY SKING, DEPUTY CLERK
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 279

STATEMENT OF ABANDONMENT OF USE OF FICTITIOUS BUSINESS NAME STATEMENT

NEW FILE NO. 20210987
OLD FILE NUMBER. 20201871
FICTITIOUS BUSINESS NAME(S) TO BE ABANDONED: DIAMOND BAIL BONDS AND NOTARY SERVICE, 9009 SAN RAFAEL ROAD, ATASCADERO, CA 93422, SAN LUIS OBISPO COUNTY.
THE FICTITIOUS BUSINESS NAME WAS FILED IN SAN LUIS OBISPO COUNTY ON: 09-15-2020
THE FOLLOWING PERSON(S) HAVE ABANDONED THE USE OF THE FICTITIOUS BUSINESS NAME: LINDA MINTEY, 9009 SAN RAFAEL ROAD, ATASCADERO, CA 93422
THIS BUSINESS WAS CONDUCTED BY: AN INDIVIDUAL: LINDA MINTEY
THIS STATEMENT WAS FILED WITH THE COUNTY CLERK OF SAN LUIS OBISPO COUNTY ON: 04/19/2021
CERTIFICATION I HERBY CERTIFY THAT THIS COPY IS A CORRECT COPY OF THE ORIGINAL STATEMENT ON FILE IN MY OFFICE.
TOMMY GONG,
COUNTY CLERK
BY SKING, DEPUTY CLERK
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 280

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210989
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: DIAMOND BAIL BONDS, 948 SANTA ROSA STREET, SAN LUIS OBISPO, CA 93401, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: GREGORY L. SULLIVAN, INC., 948 SANTA ROSA STREET, SAN LUIS OBISPO, CA 93401
If Corporation or LLC- CA State of Incorporation/Organization
CALIFORNIA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ GREGORY L. SULLIVAN, INC., GREGORY L. SULLIVAN, PRESIDENT
This statement was filed with the County Clerk of San Luis Obispo County on 04/19/2021
TRANSACTING BUSINESS DATE: 04/09/21
CERTIFICATION: I hereby certify that this copy is a correct copy of the original statement on file in my office.
TOMMY GONG, County Clerk
By SKING, Deputy
New Fictitious Business Name Statement, Expires 04/19/2026
PUB: 05/06, 05/13, 05/20, 05/27/2021
LEGAL CM 281

FICTITIOUS BUSINESS NAME STATEMENT

File No 20210990
THE FOLLOWING PERSON(S) IS/ARE DOING BUSINESS AS: ACE BAIL BONDS AGENCY, 948 SANTA ROSA STREET, SAN LUIS OBISPO, CA 93401, SAN LUIS OBISPO COUNTY
THIS BUSINESS IS CONDUCTED BY: A CORPORATION: GREGORY L. SULLIVAN, INC., 948 SANTA ROSA STREET, SAN LUIS OBISPO, CA 93401
If Corporation or LLC- CA State of Incorporation/Organization
CALIFORNIA
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows is false is guilty of a crime.)
/S/ GREGORY L. SULLIVAN, INC., GREGORY L. SULLIVAN, PRESIDENT
This statement was filed with the County Clerk of San Luis Obispo County on 04/19/2021
TRANSACTING BUSINESS DATE: 04/09/21
CERTIFICATION: I hereby

Atascadero Mutual Water Company (AMWC)

PUBLIC NOTICE

2020 Water Shortage Contingency Plan and Urban Water Management Plan Update

Atascadero Mutual Water Company (AMWC) is currently in the process of preparing a Water Shortage Contingency Plan (WSCP) and updating its Urban Water Management Plan (UWMP) as required by the California Department of Water Resources.

Public drafts of the WSCP and UWMP update are currently available for review by appointment at AMWC's administration office at 5005 El Camino Real, Atascadero, or on its website at www.amwc.us. The AMWC Board will consider adopting these plans at its meeting on June 10, 2021. Copies of the plans will also be emailed upon request.

The WSCP and UWMP update are prepared by urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands over a 20-year planning horizon. The plans include an analysis of projected population growth, current and future water demands, as well as water supply and pumping data.

AMWC encourages local agencies, the public, and other interested parties to participate in the development these plans by providing written comments prior to the June 10 board meeting. Written comments can be emailed to jneil@amwc.us or mailed to Atascadero Mutual Water Company, PO Box 6075, Atascadero, CA 93423 no later than May 26, 2021.

For more information, contact AMWC at (805) 466-2428 or visit www.amwc.us.

CITY OF ATASCADERO

SAN GABRIEL AND SAN MARCOS ROAD PAVEMENT REHABILITATION PROJECT, Project No. C2020R05

NOTICE IS HEREBY GIVEN THAT The City of Atascadero will receive bids for the San Gabriel and San Marcos Road Pavement Rehabilitation Project at the Atascadero City Hall, 6500 Palma Avenue, Atascadero, CA until June 8, 2021 at 3:00 P.M., when they will be publicly opened.

Proposals received after said time will not be considered. Proposals shall be submitted in a sealed envelope plainly marked with the project title, bidder's name, and address.

The Contractor must possess a valid CLASS A CONTRACTOR'S LICENSE at the time of award. This project is subject to the payment of Prevailing Wages, therefore the Contractor shall pay all wages and penalties as required by applicable law. Per SB 854 (Stat. 2014, Chapter 28), no contractor or subcontractor may work or be listed on a bid proposal unless registered with the DIR. Every bid must be accompanied by a certified check/cashier's check or bidder's bond for 10% of the bid amount, payable to the City of Atascadero.

Bid packages may be downloaded for a fee of $15.00 on the City website, www.atascadero.org or at www.QuestCDN.com using project number eBid #7813346.

Question may be directed to the City of Atascadero at (805) 470-3180 or (805) 470-3486 or DPatterson@atascadero.org or TRamirez@atascadero.org

Run dates: May 20, 2021 and May 27, 2021

Appendix J. ADOPTION RESOLUTION

A RESOLUTION OF THE ATASCADERO MUTUAL WATER COMPANY BOARD OF DIRECTORS ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN UPDATE

WHEREAS, on September 21, 1983, the State of California enacted Assembly Bill 797, known as the Urban Water Management Plan Act requiring urban water suppliers to implement policies, practices, and rules that promote the conservation and efficient use of water; and

WHEREAS, the Urban Water Management Plan Act requires urban water suppliers serving more than 3,000 customers or retailing more than 3,000 acre-feet of water to adopt Urban Water Management Plans (UWMP) and requires urban water suppliers to update those plans every five years; and

WHEREAS, Atascadero Mutual Water Company (AMWC) currently provides municipal water to a population of over 30,000 and supplies over 5,000 acre-feet of water annually to its shareholders; and

WHEREAS, AMWC first adopted an UWMP in 2005 and updated the plan in 2010 and 2015; and

WHEREAS, over the past 15 years, AMWC's UWMP and updates have set forth an increasingly comprehensive and effective water conservation program that includes public information and outreach; residential services such as plumbing fixture and appliance rebates and home surveys; residential and commercial landscaping rebates; residential inverted block (tiered) retail pricing structure; and specific and permanent restrictions on wasteful water practices; and

WHEREAS, AMWC has prepared a draft 2020 update to its UWMP describing AMWC's service area, existing and planned sources of water, reliability of the supply; water demand and use projections; water conservation and demand management measures; and water shortage contingency analysis; and

WHEREAS, the UWMP update incorporates AMWC's current water conservation program consisting of policies, practices, and rules that may be expected to continue yielding increased per capita water savings as the community develops in accordance with water conservation requirements; and

WHEREAS, AMWC's UWMP update contains a Water Shortage Contingency Plan defining AMWC's actions to address six stages of drought causing up to a 50 percent water shortage and catastrophic supply interruptions from power outage, earthquakes, or other disasters; and

WHEREAS, AMWC prepared the draft 2020 UWMP update in coordination with other agencies, including other suppliers sharing common sources, regional water management agencies, and relevant public agencies, to the extent practicable; and

WHEREAS, AMWC has provided notice to the public of its intent to adopt the 2020 UWMP update, has made the draft plan available for public review, and has encouraged the public to provide comment; and

WHEREAS, AMWC properly noticed and held a public hearing on June 10, 2021 prior to adoption of its UWMP update for the purpose of allowing the community to provide comment.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Atascadero Mutual Water Company as follows:

1. The 2020 Urban Water Management Plan update is hereby adopted and ordered filed with the Corporate Secretary.

2. The General Manager is hereby authorized and directed to file the Plan with the California Department of Water Resources within 30 days after this date.

3. The General Manager is hereby authorized and directed to implement the Water Shortage Contingency Plan during water shortages when declared by the Board of Directors.

PASSED AND ADOPTED this the 10th day of June 2021, by the following vote:

AYES: 5

NOES: 0

ABSENT: 0

ABSTAIN: 0

ATTEST:

Cheryl Powers, Corporate Secretary

APPROVED:

Brien Vierra, President

Appendix K. 2020 UWMP CHECKLIST

Appendix F: UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	
x	x	Section 2.2	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	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 2.6	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	
x	x	Section 2.6.2	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 and contingency plan.	Plan Preparation	
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Section 2.6	10631(h)	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	
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Chapter 5	10608.20(e)	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	
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	
	x	Section 5.1	10608.36	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	
x		Section 5.2	10608.24(d)(2)	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	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 5.5	10608.22	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	
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.*	System Supplies	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or 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	
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.2	10631(b)(4)(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	
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	
x	x	Section 6.2.2.4	10631(b)(4)(C)	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	
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	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.	System Supplies (Recycled Water)	
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	
x	x	Section 6.2.5	10633(d)	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)	
x	x	Section 6.2.5	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.	System Supplies (Recycled Water)	
x	x	Section 6.2.5	10633(f)	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)	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	
x	x	Section 6.2.8, Section 6.3.7	10631(f)	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 for a period of drought lasting 5 consecutive water years.	System Supplies	
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.2	10634	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	
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive 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	
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	
x	x	Sections 8.12 and 10.4	10635(c)	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 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	
x		Sections 9.2 and 9.3	10631(e)(1)	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	
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.2.1	10621(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. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	
x	x	Section 10.2.2	10642	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	
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	
x	x	Section 10.4	10644(a)(1)	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	
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	
x	x	Section 10.5	10645(a)	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	
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency 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	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	